Lockheed Martin Corporation
6801 Rockledge Drive MP: CCT-246
Bethesda, MD 20817

Telephone (301) 548-2227

December 15, 2017

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

Subject: **Block E Downgradient Trichloroethene Plume Additional Investigation Report, Middle River Complex, Middle River, Maryland**

Dear Mr. Carroll:

Lockheed Martin Corporation (Lockheed Martin) presents this report summarizing the additional investigation performed in Block F, downgradient of Block E, at the Middle River Complex (MRC). A previous investigation in October–November 2016 sought to delineate the downgradient extent of the groundwater trichloroethene (TCE) plume south of monitoring well SEMW-6I (Figure 1). The results of this investigation (*Block E Downgradient TCE Groundwater Investigation* [Tetra Tech, April 2017]) indicate that the TCE plume extends downgradient from SEMW-6I toward Dark Head Cove (Figure 1). Therefore, in December 2016, surface water samples were collected from Dark Head Cove at six locations directly downgradient of the groundwater TCE plume (*Final 2016 Surface Water Sampling Report Tetra Tech, 2017*). TCE was detected at several sampling locations in Dark Head Cove, with a maximum concentration of 7.8 micrograms per liter (µg/L) at MRC-SW12B–D (Figure 2).

These results prompted Lockheed Martin to conduct an additional investigation in this area, as proposed in the *Block E Downgradient Trichloroethene Plume Additional Investigation Work Plan* submitted in April 2017. The scope of work included advancing several borings via direct-push technology (DPT), installing extraction and monitoring wells, performing pumping tests and a tidal

study, sampling and analysis of groundwater and soil in Block F (downgradient of Block E near Dark Head Cove), and sampling of surface water in the cove. Field activities were completed by Tetra Tech, Inc. (Tetra Tech) on behalf of Lockheed Martin. This letter report summarizes those activities, the goals of which were to:

- collect additional surface water samples from Dark Head Cove (as part of routine triannual sampling) to improve the characterization of surface water impacts in this area
- address data gaps identified in the October–November 2016 TCE groundwater plume delineation near Dark Head Cove
- perform comprehensive tidal and pumping tests, collect additional information from groundwater and soil sampling, and to plan possible future remedial action(s) that would mitigate discharge of the TCE groundwater plume to Dark Head Cove

The results of these investigations will be used to prepare an addendum to the groundwater-response action-plan that will recommend a comprehensive response action for Blocks E and F; the addendum will be submitted in 2018. That document will consider a range of remedial actions for these areas and recommend a path forward. It will also contain a detailed site history and conceptual site model.

INVESTIGATION ACTIVITIES

Surface water sampling—Measured concentrations of TCE in groundwater near Dark Head Cove discovered in 2016 prompted Lockheed Martin to expand periodic surface water sampling to include locations near the Block F groundwater plume. In December 2016, surface water samples were collected from two depths (one foot below the water line and one foot above the sediment surface) at six locations in Dark Head Cove. Samples were also collected in April and June 2017; sampling locations were adjusted based on the highest TCE concentrations detected during the December 2016 sampling. The April and June sampling approach is summarized below:

Sampling locations	Sampling depths	Analytical parameters
SW-12B, SW-12C, SW-13A, SW-13B, SW-14A, SW-14B, SW-15A, SW-16A	Two samples from each location; one from one foot below the water surface, and the other from one foot above the sediment surface	All samples were analyzed for volatile organic compounds. In April 2017 (only), one sample (SW-15A–S, the shallow sample) was analyzed for additional compounds (sulfate, bromide, iron/manganese, alkalinity, salinity) so these results could be compared to groundwater pumping test results.

Other surface water sampling in Dark Head Cove, including sampling near Outfalls 006 and 008 at the eastern side of this study area, was completed as part of routine surface water sampling in April and June 2017; these events also included sampling surface water in association with sediment remediation, as appropriate. The April and June 2017 results, along with the September 2017 results of additional surface water sampling in Dark Head Cove near the MRC outfalls and the Block F TCE plume, will be submitted as part of the routine surface water report to the Maryland Department of the Environment (MDE).

Utility locating before intrusive work—Each boring or drilling location was screened for subsurface utilities before any intrusive field activities began. Tetra Tech called in a "Miss Utility" ticket, obtained available MRC facility engineering and utility maps, and contracted with a private utility-locating service to locate and mark any underground utilities. No underground utilities were detected at the proposed boring locations.

Groundwater screening to delineate TCE plume near Dark Head Cove—In May 2017, seven temporary borings (sampling locations D5 through D11) were advanced via DPT to a maximum depth of approximately 30 feet below ground surface (bgs), west and east of the current transect D (installed in November 2016) to delineate the edge of the groundwater TCE plume in Block F (Figure 3). A Maryland-licensed driller advanced these borings under Tetra Tech supervision. At each boring location, groundwater samples were collected from three depth intervals (as was done during the November 2016 investigation): a shallow interval (designated with an "S," and approximately 15–19 feet bgs); an intermediate interval (designated with an "I," and approximately 20–24 feet bgs); and a deep interval (designated with a "D," and approximately 26–30 feet bgs). The boreholes were advanced using the Geoprobe® SP-15 sampling system, as described in the *Block E Downgradient Trichloroethene Plume Additional Investigation Work Plan* (Tetra Tech, April 2017).

A peristaltic pump was used to collect the groundwater samples, which were immediately field-analyzed for TCE by experienced Tetra Tech personnel using a field gas-chromatograph (GC), FROG-4000. After sampling at each targeted interval was concluded, all down-hole equipment was withdrawn from the borehole and decontaminated per the work plan. Boreholes were then grouted and abandoned using Maryland abandonment standards, as stated in *Code of Maryland Regulations* (COMAR) 26.04.04.11.

***Soil sampling*—**Several soil samples were collected from proposed extraction well locations EW-1 and EW-2 using the DPT drilling rig during the groundwater-TCE screening described above. Continuous soil cores were collected from advanced borings using a 1.5-inch-diameter, four-foot-long stainless-steel macrocore sampler fitted with a disposable acetate-liner (Geoprobe® single-tube MC-5 soil sampling system). The boring logs generally show a sandy or silty clay with limited silty sand stringers from the ground surface to 10–13 feet bgs. Below this, a medium to fine grain sand is present to the bottom of the borings (to approximately 30 feet bgs). Most borings throughout Blocks E and F show a clay layer just below that at 30 feet bgs. Additionally, several borings in Blocks E and F indicate a gravel layer that is several inches thick just above the clay. The water table is encountered at 3–5 feet bgs. Boring logs are in Attachment A.

Four soil samples were collected and sent to the laboratory for grain-size distribution analyses by American Society for Testing and Materials (ASTM) method D422; grain size was used to determine the well design of the proposed extraction wells (i.e., EW-1 and EW-2) that were used for the groundwater pumping tests described later in this report. Two samples were collected and analyzed for ferrous minerals from the boring of EW-2; these will be used to evaluate the potential for naturally occurring abiotic degradation of TCE. These data would also be used to evaluate the feasibility and design of reactive-barrier technology. These latter soil samples were collected from two depth intervals (10–14 feet bgs and 26–30 feet bgs) at EW-2 (Figure 3). Samples were analyzed using United States Environmental Protection Agency (USEPA) method SM3500-Fe B.4.c. The table below contains a summary of the soil samples collected during this investigation:

Soil sampling location	Sampling Intervals	Analytical parameters
EW-1	16 feet to 20 feet 26 feet to 30 feet	Grain-size distribution
EW-2	18 feet to 22 feet 26 feet to 30 feet	Grain-size distribution
EW-2	10 feet to 14 feet 26 feet to 30 feet	Ferrous minerals

Boreholes at EW-1 and EW-2 were not abandoned, because they were over-drilled during well installation. While open, the borings were protected from water and soil entry.

***Aquifer pumping tests*—**Aquifer pumping tests were conducted to gather data necessary to determine if groundwater extraction is a viable option for hydraulic control of the TCE plume near Dark Head Cove.

***Data quality objectives*—**Specific data quality objectives of the aquifer pumping tests are to:

- determine the optimal sustainable extraction rates for a possible full-scale groundwater extraction system
- obtain data to calculate aquifer and well-performance parameters such as transmissivity, storativity, leakage coefficients, and specific capacity along the axis of the TCE plume in two different locations
- determine the pumping radius of influence
- identify preferential-flow pathways and possible hydraulic connections to the surface water
- evaluate tidal influence on the aquifer before, during, and after pumping
- gather adequate contaminant concentration and geochemistry data to design a treatment system for groundwater contaminants of concern (COC)

***New well installation*—**Two pumping wells (EW-1 and EW-2), one monitoring well cluster (SEMW-9S/I), and two piezometers were installed at the locations shown on Figure 3 in June 2017. The pumping wells and the monitoring well cluster were installed using a sonic-drilling method, and the piezometers were installed using a DPT drill rig. Pumping wells (EW-1 and EW-2) were constructed using four-inch-diameter flush-threaded Schedule 40 polyvinyl chloride (PVC) well casings and manufactured 0.010-inch slotted PVC well screens (Johnson Screens). Well-screen slot-size was determined based on soil grain-size distribution, and the wells were screened from 15–30 feet bgs. Monitoring well cluster SEMW-9S/I was constructed using two-inch-diameter flush-threaded Schedule 40 PVC well casings and manufactured 0.010-inch slotted PVC well screens (Johnson Screens or equivalent). The shallow well (SEMW-9S) was screened from 6–16 feet bgs and the intermediate well (SEMW-9I) was screened from 20–30 feet bgs.

The two piezometers (PZ-1 and PZ-2 on Figure 3) were installed using a DPT drilling rig during groundwater-TCE screening in May 2017. The piezometers were constructed using one-inch-diameter flush-threaded Schedule 40 PVC well casings and manufactured PVC well screens (Johnson Screens). Piezometers PZ-1 and PZ-2 were screened 20–30 feet bgs using 0.010-inch

slotted PVC well screen. Construction details for the new wells and piezometers are summarized below:

Well designation	Casing size	Purpose	Screened interval (feet below ground surface)
EW-1	4 inches	Groundwater extraction	15–30
EW-2	4 inches	Groundwater extraction	15–30
SEMW-9S	2 inches	Groundwater monitoring	6–16
SEMW-9I	2 inches	Groundwater monitoring	20–30
PZ-1	1 inch	Temporary piezometer	20–30
PZ-2	1 inch	Temporary piezometer	20–30

Pumping- and monitoring-well installation methods, construction details, and well-development methods were as described in Section 3.6 of the groundwater-response action design (*Groundwater Response Action 100% Design-Basis Report, Tetra Tech, September 2013*). Lithology was logged continuously and is included in the extraction and monitoring well boring logs in Attachment A. These results were used in conjunction with historical site boring logs and pumping test data to create a generalized cross-section of site lithology in Blocks E and F. The primary purpose of this cross-section is to present site information conceptually; therefore, what is shown is a simplified view of a complex lithology, consisting of multiple stringers within these generalized zones. For example, the very thin gravel layer just above the clay shown at EW-2 was not explicitly observed during drilling, but the presence of that layer at nearby well SEMW-7I, and the high pumping rate obtained at this location (as described below), indicate the possible presence of a gravel layer at this location. These cross-sections will be updated as part of the conceptual site model developed in the groundwater RAP addendum. The location of the cross-section is shown on Figure 4; Figure 5 shows the lithology of the cross-section.

Well sampling—The two new monitoring wells in cluster SEMW-9S/I were sampled for multiple parameters (volatile organic compounds [VOCs], sulfate, bromide, nitrates, iron/manganese, alkalinity, total dissolved solids [TDS], salinity, hardness [ions], and ferrous iron by a field kit) before and after the aquifer-pumping test. Two additional locations (e.g., SEMW-8I and SEMW-9I) were sampled for dissolved gasses (methane, ethane, and ethane) and *dehalococcoides* (DHC) bacterial species before pumping to evaluate biodegradation processes near Dark Head Cove. Groundwater samples from monitoring wells SEMW-8I and SEMW-9I were also analyzed

for acetylene, propane, and butane to determine the potential for naturally occurring abiotic degradation of TCE; these data would also be used to evaluate the feasibility and design of reactive barrier technology.

Groundwater samples were collected using a low-flow sampling method (purge rate was approximately 300 milliliters per minute), and field parameters (pH, conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity) were measured until stable at each sampling location. During pumping, samples were collected from the discharge of each extraction well (EW-1 and EW-2) at the beginning of testing, at mid-test, and at the end of testing. These samples were analyzed in the laboratory for VOCs, sulfate, bromide, nitrates, iron/manganese, alkalinity, TDS, salinity, and hardness (ions), with ferrous iron analyzed in the field. Groundwater samples from the monitoring wells were collected using low-flow sampling methods and a peristaltic pump. Sample collection followed methods described in Section 3.1.2 of the operation and maintenance plan for groundwater remediation (*Groundwater Remediation O&M Manual Appendix B—Performance Monitoring Plan, Tetra Tech, September 2014*), and are summarized on next page.

Tidal study—A tidal study before the pumping test evaluated possible tidal influence on the groundwater table in the area. Tetra Tech field geologists installed a temporary stilling well (TPZ-1) in Dark Head Cove near the shore (see Figure 3). The stilling well was constructed of two-inch-diameter schedule 40 PVC pipe and was secured to a post driven into the sediment to prevent well movement. The bottom of the stilling well was set approximately four inches above the sediment–water interface, and the riser extended above the water surface. A submersible pressure-transducer with the appropriate range (zero to 10 pounds per square inch pressure) was placed into the stilling well approximately six inches from the bottom of the well. Pressure transducers were also installed in eight well locations near Dark Head Cove, as described in the next section. The pressure transducers began logging water levels approximately three days before the pumping test began, and continued to log data during the pumping test and its recovery phase (approximately three days). Water levels were recorded every five minutes.

Groundwater sampling location	Frequency of collection	Analytical parameters
SEMW-9S	Two samples; before and after pumping test	VOCs, alkalinity, sulfate, nitrate, iron/manganese, bromide, TDS, salinity, hardness (ions), ferrous iron by a field kit (before test only)
SEMW-9I	Two samples; before and after pumping test	VOCs, alkalinity, sulfate, nitrate, iron/manganese, bromide, TDS, salinity, hardness (ions), ferrous iron by a field kit (before test only); dissolved gasses (methane, ethane, ethane), dissolved gasses (acetylene, propane, and butane) (before test only), DHC (before test only)
SEMW-8I	One sample; before pumping test	VOCs, dissolved gasses (methane, ethane, ethane, acetylene, propane, and butane) and DHC
SEMW-8I	One sample; after pumping test	VOCs
SEMW-7I	Two samples; before and after pumping test	VOCs
EW-1 discharge	Three samples; near the beginning, middle, and end of pumping test	VOCs, alkalinity, sulfate, nitrate, iron/manganese, bromide, TDS, salinity, hardness (ions), ferrous iron by a field kit
EW-2 discharge	Three samples; near the beginning, middle, and end of pumping test	VOCs, alkalinity, sulfate, nitrate, iron/manganese, bromide, TDS, salinity, hardness (ions), ferrous iron by a field kit

DHC—*Dehalococcoides*
TDS—total dissolved solids
VOCs—volatile organic compounds

Pumping test procedures—The pumping test was in July 2017. Pumping wells EW-1 and EW-2 were tested separately. Table 1 contains a summary of pumping test parameters. The testing methodology used for each pumping location is below:

1) Pressure transducers were placed and started recording water levels several days before the pumping test began at nine locations (see Figure 3): the stilling well in Dark Head Cove, PZ-1, PZ-2, EW-2, SEMW-7I, SEMW-8I, SEMW-8S, SEMW-9I, and SEMW-9S. In general, the piezometers and "I" wells are screened from 20–30 feet bgs, and the "S" wells are screened from 6–16 feet bgs. Pressure readings were recorded every five minutes. Depth to water was measured using an electronic meter before the pressure transducers were placed.

2) A step test was conducted at well EW-1 to determine its sustained pumping rate. The pressure transducer in EW-1 was set to record pressure at two-second intervals, and the well was pumped for approximately one hour at a low rate (0.27 gallons per minute [gpm]).

The groundwater-level measurements in EW-1 indicated that this was not the full pumping capacity of the well, so the pumping rate was then increased to 0.38 gpm, and this well was pumped for approximately one hour. The pumping rate was increased further based on observed drawdown to obtain the well's highest sustainable rate (0.65 gpm, where the groundwater level was stable at approximately two feet above the top of the pump), and was subsequently pumped for approximately 20 hours.

3) Pumping at EW-1 was then discontinued and aquifer recovery was measured. Recovery was monitored in real time (via data cables connected to the pressure transducers) at the following locations: PZ-1, SEMW-7I, and EW-2. When recovery of approximately 90% in EW-1 had been reached after three hours, the pumping test at EW-2 started.

4) A step test similar to that conducted at EW-1 was conducted at extraction well EW-2 to determine its sustained pumping rate. The pressure transducer in EW-2 was set to record pressure at two-second intervals. The well was pumped for approximately one hour at a low rate (1.43 gpm) and was then pumped at an increased rate (2.6 gpm) for approximately one hour. The pumping rate was increased further based on observed drawdown to obtain the well's highest sustainable rate (4.3 gpm), and the well was subsequently pumped for approximately 38 hours. The transducers remained in the wells for several days to continuously monitor recovery and tidal influence.

Analytical groundwater samples were collected before, during, and after the pumping tests per the well sampling section above. Groundwater extracted during the tests was stored in a 20,000-gallon frac tank placed on a secondary containment pad. A small secondary containment pad was also used at the pumping location to house the piping manifold (e.g., flow meters, valves). All piping was also placed in secondary containment.

INVESTIGATION-DERIVED WASTE HANDLING

Investigation-derived waste (IDW) (consisting of all drill cuttings and soil cuttings, decontamination rinse water, purge water, pump test water, contaminated tubing and piping, and personal protective equipment [PPE]) was generated during this investigation. PPE and used tubing/piping IDW were placed in trash bags and then in a facility trash receptacle to be disposed of as general refuse. Soil cuttings and water were collected and stored in U.S. Department of Transportation-approved 55-gallon drums. IDW was characterized and disposed of in accordance with applicable state and federal regulations and the MRC waste management plan. Groundwater extracted during the pumping test was accumulated in the frac tank, characterized, and then transported to a properly licensed off-site treatment facility for treatment. The frac tank was then cleaned and transported off-site. All waste from this investigation was disposed of as a listed hazardous waste.

INVESTIGATION RESULTS SUMMARY

Surface water sampling results—The sampling locations and results for the December 2016, April 2017, and June 2017 sampling are shown in Figures 2, 6, and 7, respectively. The highest concentration of TCE found was 7.8 µg/L (MRC-SW12B–D), detected in December 2016; this concentration is well below the calculated site-specific human-health risk-based TCE concentration for Dark Head Cove of 30 µg/L that MDE has approved. The maximum detected *cis*-1,2-dichloroethene (*cis*-1,2-DCE) concentration was 5.5 µg/L, also detected in December 2016 at location MRC-SW12B–D, and vinyl chloride has not been detected in any sample. In April 2017, the maximum TCE detection near the Block F plume was 3.1 µg/L (MRC-SW15A–S); *cis*-1,2-DCE and vinyl chloride were not detected in samples collected in April 2017. In June 2017, all samples collected near the Block F plume were nondetect for TCE, *cis*-1,2-DCE, and vinyl chloride.

Results of groundwater screening near Dark Head Cove—Groundwater screening successfully delineated the TCE plume near Dark Head Cove. As stated earlier, seven borings (D-5 through D-11) were installed during this investigation in a transect parallel to Dark Head Cove. Only boring D-9 had TCE concentrations greater than 100 µg/L in shallow and intermediate samples; the maximum TCE concentration (2,185 µg/L) was detected in the intermediate sample (20–24 ft bgs) from that location. Low TCE concentrations in the other borings allowed the delineation of the 1,000 µg/L TCE contour as shown on Figure 3. The TCE-plume contour remained nearly the same as previously configured, but was extended slightly to the southwest, based on the TCE concentrations in D-9. TCE screening results for all field-analyzed samples collected in Block F in 2016 and 2017 are summarized in Table 2.

Soil sampling results—As discussed above, two soil samples from each boring associated with extraction well locations (i.e., EW-1 and EW-2) were analyzed for grain-size distribution. Sampling results were used to determine the size of well-screen slots and sand pack for each well. Analysis results and calculations to determine well design are in Attachment B. A slot size of 0.010-inches and a sand-pack mesh size of 20–30 were deemed appropriate. Samples from EW-2 (at depths of 10–14 feet and 26–30 feet bgs) were also analyzed for ferrous materials. Ferrous material results were 10 milligrams per kilogram (mg/kg) in the 10–14-foot sample and 7.1 mg/kg in the 26–30-foot sample. These results will be used to determine the feasibility of, and design

parameters for, an abiotic, permeable, reactive barrier during preparation of the groundwater response-action-plan addendum.

Well sampling results—Sampling results for monitoring wells SEMW-7I, -8S, -8I, -9S, and -9I are summarized in Table 3. Samples collected before the pumping test had TCE concentrations ranging from 940 µg/L (SEMW-9I) to 26,000 µg/L (SEMW-7I), and *cis*-1,2-DCE concentrations ranging from nondetect (SEMW-71 and SEMW-9S) to 1,500 µg/L (SEMW-8I). Vinyl chloride was not detected in any sample collected (vinyl chloride detection limits range from 11 µg/L [SEMW-9I] to 560 µg/L [SEMW-9S]). Samples collected after pumping were similar; TCE concentrations range from 580 µg/L (SEMW-9I) to 26,000 µg/L (SEMW-9S), and *cis*-1,2-DCE concentrations range from nondetect (SEMW-71 and SEMW-9S) to 2,200 µg/L (SEMW-8I). Again, vinyl chloride was not detected (vinyl chloride detection limits range from 5.6 µg/L [SEMW-9I] to 450 µg/L [SEMW-9S]). The wide range in vinyl chloride detection limits in these samples was due to the laboratory dilutions required for samples with high concentrations of TCE.

Several other parameters were analyzed in samples collected from SEMW-8I, -9S, and -9I during groundwater pumping to determine if surface water was being captured during pumping, to determine parameters for possible monitored natural-attenuation of VOCs present in the plume, and to determine parameters for possible future groundwater treatment. Bromide, salinity, and TDS results indicate that little or no surface water migrated to monitoring wells SEMW-9I and -9S during pumping. Salinity was not detected, and bromide and TDS concentrations before and after pumping were nearly identical. The sample collected from Dark Head Cove contained bromide at 3.9 milligrams per liter (mg/L), sulfate at 130 mg/L, and total dissolved solids at 1,500 mg/L; all of these values are approximately one order of magnitude (i.e., a power of 10) greater than those in SEMW-9I and SEMW-9S. Dissolved iron concentrations were measured using field kits in wells SEMW-9S and -9I; these results are similar (9 mg/L in SEMW-9S and 10.5 mg/L in SEMW-9I).

Data collected from the monitoring wells were also evaluated for the anaerobic biodegradation potential of TCE and its daughter products at these locations. Several lines of evidence were used in the evaluation: presence of TCE daughter products (*cis*-1,2-DCE and vinyl chloride); dissolved gas concentrations, pH, and oxidation-reduction conditions. The data collected indicate that well SEMW-8I shows greater potential for ongoing biodegradation than does SEMW-9I. Although the oxidation-reduction potential (ORP) at SEMW-8I is slightly higher than at SEMW-9I, it is within

a favorable range for anaerobic biodegradation (-145 millivolts); the pH (7.26 standard units) and the dissolved oxygen (not detected) at SEMW-8I are also more favorable than what was observed at SEMW-9I (4.91 standard units and 0.1 mg/L, respectively). Note that higher dissolved oxygen and ORP levels are in wells SEMW-7I and SEMW-9S, indicating that the potential for anaerobic reductive dechlorination is less likely in these wells, and that this potential varies widely throughout the site.

Additionally, the *cis*-1,2-DCE concentration at SEMW-8I was greater than the TCE concentration at SEMW-8I, indicating that anaerobic degradation is occurring, which is supported by anaerobic conditions and favorable pH at this location. However, this type of biotic reductive dechlorination appears to be limited to reducing *cis*-1,2-DCE, as little to no vinyl chloride was observed (as it was not detected, albeit some of the detection limits are relatively high). The *cis*-1,2-DCE concentration at SEMW-9I was almost two orders of magnitude (100 times) lower than its TCE concentration, indicating limited degradation, likely due to a relatively low pH.

Other parameters indicate SEMW-8I has greater anaerobic degradation rates, as its ethene and methane concentrations were more than one order of magnitude (10 times) higher than those at SEMW-9I. The higher ethene concentration at SEMW-8I might indicate a potential for complete TCE degradation, despite the absence of vinyl chloride at this location. However, microbial sampling at both wells showed nondetectable concentrations of *Dehalococcoides*, along with its reductase genes tceA, BAV1 vcrA, and vcrA. This organism is important because it is the only know genus of bacteria capable of biotically reducing *cis*-1,2-DCE to vinyl chloride anaerobically.

These results suggest that the dissolved gasses might be present due to abiotic, not biotic, degradation pathways. Concentrations of *Dehalobacter* (an anaerobic bacterium known to convert TCE to *cis*-DCE) at SEMW-8I were two orders of magnitude greater than those at SEMW-9I. These results suggest that the partial dechlorination to *cis*-1,2-DCE observed near SEMW-8I might be due to biotic degradation pathways, in particular, anaerobic biodegradation. Significant additional discussion of the biotic and abiotic degradation-pathways as they relate to possible remedial actions will be included in the alternatives analysis portion of the groundwater response-action addendum.

TIDAL STUDY AND PUMPING TEST RESULTS

Pressure transducers measured the magnitude of water level change caused by tidal fluctuation in Dark Head Cove and in each well containing the transducers before, during, and after the pumping tests. Graphs of the transducer data (Attachment C) show that the water level in Dark Head Cove fluctuates more than 1.5 feet, whereas the water level in monitoring wells and piezometers fluctuates by more than 0.5 feet during each tidal cycle. The magnitude of these fluctuations (which varied within each tidal cycle) significantly complicates the analysis of the pumping test data due to difficulties in separating tidal influence from changes caused by pumping.

Pumping tests indicate that the sustained yield at EW-1 was considerably lower than at EW-2, likely because a thin layer (several inches) of gravel might be near the bottom of the well screen at EW-2. Table 1 contains a summary of pumping-test parameters for wells EW-1 and EW-2. Tables 3 and 4 contain analytical sampling results from wells EW-1 and EW-2, and from several observation wells collected before, during, and after the pumping tests. Relevant data from sampling in Dark Head Cove is also in Table 4.

Pumping in EW-2 resulted in a well-defined hydraulic response in all observation wells in the area; this also might be due to a gravel layer at EW-2. Pumping in EW-1 resulted in a weaker, but still detectable, hydraulic response as compared to EW-2. Preliminary capture-zone estimates based on the EW-2 pumping test results were performed by calculating hydraulic transmissivity values using *AQTESOLV* software. Estimated hydraulic-transmissivity values, hydraulic gradient in the Block F area, and an assumed pumping rate were used in equations for steady-state-flow capture-zone calculations.

The results suggest that a single pumping well with a rate of 2–4 gpm will develop a capture zone across the TCE-plume width. However, significant uncertainties related to calculation of hydraulic transmissivity values exist, and additional analyses are required. *AQTESOLV* software uses one-dimensional equations, and thus can only handle one layer. A conceptual model for Block F suggests that the formation has a thin, highly conductive, gravel layer at the bottom of a silty sand unit and, thus, the *AQTESOLV* results are not, strictly speaking, appropriate for this scenario, and provide only an initial estimate of site conditions.

As mentioned above, more analysis of the pumping tests is required, as response is also complicated by tidal influences measured in all observation wells. A full interpretation of the pumping test results will be included in the addendum to the Block E and F groundwater-response action-plan. In that document, pumping test data will be used to develop a small-scale three-dimensional groundwater flow model using *ModFlow* software. Calculations of contaminant-mass flux and discharge, hydraulic conductivity, transmissivity, storativity, leakage coefficients, and specific capacity will be completed. The analysis will help determine the optimal sustainable-extraction rates, radius of influence, and vertical and horizontal capture zones for a possible full-scale groundwater-extraction system. Attachment C contains information detailing the hydraulic response of observation wells that results from pumping from EW-1 and EW-2, and well response to tidal fluctuations in Dark Head Cove.

Analysis of the data for extracted groundwater from both EW-1 and EW-2 shows no indication that surface water was being recovered after 40 hours of continuous pumping, and shows recovery of more than 11,000 gallons of groundwater at EW-2 (Table 4); however, longer duration pumping tests may be necessary to confirm that surface water would not be recovered if a continuous groundwater pumping system were installed. Bromide, sulfate, alkalinity, and specific conductance levels remained steady at concentrations much lower than in Dark Head Cove while EW-1 was pumping. TDS did increase, but remained well below the levels in Dark Head Cove. Similarly, sulfate, TDS solids, and specific conductance at EW-2 remained steady at concentrations well below those found in Dark Head Cove while it was pumping. Bromide did increase, but remained well below levels in the cove. Laboratory analytical-data results are in Attachment D and summarized in Table 4.

Calculations of TCE-mass removal indicate that nearly 0.5 pounds of TCE per day were removed from the two wells. Despite its relatively low pumping rate, approximately 0.16 pounds of TCE per day were removed from EW-1; a steady TCE concentration of 21,000 µg/L was detected in all three samples collected during the pumping test. The removal rate at EW-2 was calculated to be 0.30 pounds per day, with the TCE concentration steadily increasing from 3,200 µg/L to 5,800 µg/L during its pumping test. This indicates that recovery of groundwater from areas of higher concentration might be occurring, and a longer duration pumping test might be necessary to reach steady-state conditions. The boundaries of this very narrow plume are well-defined across multiple transects, so higher concentration groundwater would not be expected to be recovered

laterally from areas outside the plume defined in Figure 3, but instead from higher concentrations present along the axis of the plume. These higher concentrations could be being drawn from lower permeability units, which could indicate the potential for long-term back-diffusion if a pumping remedy is recommended.

The following conclusions were drawn from the pumping tests:

- EW-2 pumping data suggest that hydraulic influence was observed throughout the lateral extent of the 1,000 µg/L TCE-isoconcentration contour. Additional assessment, including modeling, is being done to verify that capture can be obtained with pumping from a single well.
- Sustained pumping rates were 0.65 gpm for EW-1 and 4.3 gpm for EW-2.
- The TCE-mass removal rate was approximately 0.5 pounds per day for EW-1 (0.16 pounds per day) and EW-2 (0.30 pounds per day) combined.
- Pumping tests do not indicate that surface water from Dark Head Cove was pulled into extraction wells after pumping of EW-2 was sustained for 40 hours (approximately 11,000 gallons of groundwater pumped).
- The groundwater table in the Block F plume area is influenced fairly strongly by the tide; therefore, groundwater flow might change direction based on tidal cycle within a certain distance of Dark Head Cove.

As stated above, additional analysis of the pumping test data, and its effect on the feasibility and design of various groundwater treatment options, will be presented in the addendum to the groundwater-response action-plan for Blocks E and F.

If possible, we respectfully request to receive MDE's comments by February 13, 2018. If you have any questions regarding this report, please feel free to contact me at (301) 548-2227.

Sincerely,



Lynnette Drake
Remediation Project Lead, Environmental Remediation
Lockheed Martin Corporation

Attachments:

Tables 1 through 4
Figures 1 through 7
Attachments A–D

cc: (via e-mail without enclosure)

Gary Schold, MDE
Mark Mank, MDE
Tom Blackman, Lockheed Martin
Christine Kline, Lockheed Martin
Norman Varney, Lockheed Martin
Michael Martin, Tetra Tech
Cannon Silver, CDM Smith

cc: (via mail with enclosure)

Tom Green, LMCPI
Mike Musheno, LMCPI
Randy Huff, LMCPI

cc: (via mail with CD enclosure)

Jann Richardson, Lockheed Martin

cc: (via RMFT)

Justin Tetlow, MRAS
Scott Heinlein, LMCPI
Christopher Keller, LMCPI

FIGURES

NOTE 2: APPROXIMATELY 275 LINEAR FEET OF TRENCH IS THROUGH CONCRETE SURFACES

IWE-1 23 ug/L | IWE-2 3.5 ug/L | IWE-3 0.6 ug/L | IWE-4 0.2 ug/L | IWE-5 2.4 ug/L | IWE-6 2.8 ug/L

7.5'

SEMW-1I 1.7 ug.L

SEMW-2I 5.5 ug/L

SEMW-3I 4.4 ug/L

40'x8' INJECTION EQUIPMENT MODULE

GATE DOOR

CONCRETE (FORMER D-BUILDING BASEMENT)

CONCRETE

CONCRETE

(FILLED W/ DEBRIS)

FIRE WATER LINE

18" RCP

6" DOMESTIC WATER

HISTORICAL FIRE PUMP LOCATION

UG COMMUNICATION LINE

UG COMMUNI

IWE-7 9.3 ug/L | IWE-8 20 ug/L | IWE-27 61,000 ug/L | IWE-9 8.2 ug/L | IWE-10 82 ug/L | IWE-11 11 ug/L | IWE-12 28 ug/L

SE1

FORMER UST 2

IWE-26 1,000 ug/L

FIRE WATER LINE (ABANDONED) 15" RCP

MH-9 (BURIED) LOCATION APPROXIMATE

MW-72B 7,200 ug/L

9.78 MH-10/IL-3 INV.5.20

MH-8 9.83 INV. 5.48

25 mg/L

40,000 ug/L IWE-27

1 mg/L

HISTORIC WATER LINES

HISTORICAL CONNECTION

(FILLED W/ DEBRIS)

IWE-13 140 ug/L | IWE-14 320 ug/L | IWE-28 42,000 ug/L | IWE-15 9,200 ug/L | IWE-16 2,400 ug/L | IWE-17 110 ug/L

7.5'

SE2

GRASS AREA

CONCRETE BLOCK

500,000-GALLON WATER TANK ABOVE-GROUND

FIRE WATER LINE

UG ELECTRIC LINE

ROAD CURB

NOTE 1: JANUARY 2016 TCE GROUNDWATER VALUES ARE SHOWN IN GREEN. APRIL 2016 TCE GROUNDWATER VALUES ARE SHOWN IN RED. MAY 2015 TCE VALUES ARE SHOWN IN BLUE.

NOTE 2: 2011 INJECTION TEST MONITORING POINTS MPE-1I AND MPE2I/S ARE UTILIZED AS MONITORING WELLS SEMW-4I AND SEMW-5S/I

97 mg/L SEMW-4I/MPE-1S 3.6 mg/L

IW-E 95 mg/L

5S: 260/140/130 mg/L SEMW-5S/I 5I: 8.6 mg/L

MPE-3S/I 7.2 mg/L 93 mg/L

FORMER 500-GAL UST

MW-74C 25 ug/L | MW-74A 122 ug/L | MW-74B 33,000 ug/L

IWE-18 2.7 ug/L | IWE-19 4,200 ug/L | IWE-20 1,600 ug/L | SE3 | IWE-21 270 ug/L

25 mg/L

PUMP HOUSE

SHED

CONCRETE BLOCK

6" DOMESTIC WATER LINE

18" RCP

UG ELECTRIC LINE

INV.1.56

6' CHAIN-LINK FENCE

LOCATION OF FORMER 500,000 GALLON ABOVE-GROUND FUEL TANK

MODIFIED 1 mg/L TCE CONTOUR

1 mg/L

IWE-22 4,000 ug/L | IWE-23 9,100 ug/L | IWE-24 40 ug/L

7.5'

HISTORIC 2" DIESEL FUEL LINE

UG ELECTRIC LINE

SEMW-6I 2,900 ug/L

6.85 IL-02 INV.3.92

UG COMMUNICATION LINE

Chesapeake Park Plaza Drive

grass median

A-5 S - ND I - ND D - ND

A-6 I - 9,039 ug/L D - 14,918 ug/L

A-4 S - ND I - 5,000 ug/L D - 18,000 ug/L

A-7 I - 223 ug/L D - 15,442 ug/L

A-1 S - ND I - ND D - 60 ug/L

A-2 S - ND I - ND D - 108 ug/L

A3 S - ND I - ND D - 74 ug/L

INV.2.75

18" RCP

24" CMP

6' CHAIN-LINK FENCE

SEMW-7I 22,000 ug/L

B-4 S - ND I - ND D - ND

B-3 S - 12,000 ug/L I - 11,000 ug/L D - ND

B-2 S - 1.5 ug/L I - 26,000 ug/L D - 38,000 ug/L

B-1 S - ND I - ND D - 28,000 ug/L

B-5 S - 148 ug/L I - 2,688 ug/L D - 7,237 ug/L

B-6 S - ND I - 237 ug/L D - 786 ug/L

MW-37B 18 ug/L | MW-37C ND

HISTORIC WATER LINE

24" RCP

1,000 ug/L TCE

1,000 ug/L TCE

EW-1

PZ-1

NOTE: DPT SAMPLE DEPTHS: S: 15'-19'; I: 20'-24'; D: 26'-30'.

MW-112A 2.5 ug/L

OUTFALL 06 -0.85

-0.85 OUT-06

MRC-SW6A

EW-2

SEMW-8S 16,000 ug/L | SEMW-8I 7,100 ug/L

PZ-2

C-2 S - ND I - ND D - ND

C-1 S - 742 ug/L I - ND D - ND

C-3 S - 12,615 ug/L I - 9,489 ug/L D - 345 ug/L

C-4 S - 24,154 ug/L I - 60,059 ug/L (64,000 ug/L) D - 174 ug/L

C-5 S - 17,021 ug/L I - 4,005 ug/L D - 1,582 ug/L

C-6 S - 3,751 ug/L I - 10,374 ug/L D - 43,229 ug/L

C-7 S - ND I - 257 ug/L D - 1,285 ug/L

C-8 D - 376 ug/L

D-8 S - 1.4 ug/L I - 11 ug/L D - 0.7 ug/L

D-7 S - 22 ug/L I - 47 ug/L D - 38 ug/L

D-6 S - 1.2 ug/L I - 35 ug/L D - 2.4 ug/L

SILT FENCE

-1.68 OUT-08

D-5 S - NA I - 100 ug/L D - 99 ug/L

D-1 S - 2,486 ug/L I - 2,902 ug/L D - 5,045 ug/L

D-2 S - 5,100 ug/L I - 2,750 ug/L (1,300 ug/L) D - 1,300 ug/L

SEMW-9S/I

D-3 S - 11,000 ug/L I - 8,619 ug/L (6,000 ug/L) D - 460 ug/L

D-4 S - 18,000 ug/L I - 184 ug/L (77 ug/L) D - 45 ug/L

D-9 S - 1,323 ug/L I - 2,185 ug/L D - 61 ug/L

D-10 S - 7.6 ug/L I - 4.6 ug/L D - 3.4 ug/L

D-11 S - 5.2 ug/L I - 1.2 ug/L D - 3.2 ug/L

TPZ-1

MRC-SW10A

MRC-SW8B

MRC-SW11A

MRC-SW12A

MRC-SW10B

MRC-SW11B

MRC-SW12B

MRC-SW8A

OUTFALL 08 -1.68

MRC-SW6B

GRAPHIC SCALE 0' 25'

GRAPHIC SCALE 0' 25' 50'

DARK HEAD COVE

N 60... E 147500

MAY 2017 DPT FIELD GC INVESTIGATION TCE VALUES ARE SHOWN IN BLACK.

OCTOBER 2016 DPT FIELD GC INVESTIGATION TCE VALUES ARE SHOWN IN BLACK.

OCTOBER 2016 DPT INVESTIGATION ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN DARK RED.

NOVEMBER 2016 NEW MONITORING WELLS ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN MAGENTA.

MAY 2015 ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN BLUE.

LEGEND

- PROPERTY LINE W/ MONUMENTS
- TREELINE
- BUILDING – MAJOR
- EXISTING UTILITIES
- WATER LINE W/ VALVE & HYDRANT
- GAS LINE W/ METER & VALVE
- UNDERGROUND ELECTRIC
- ABOVE-GROUND ELECTRIC W/ POLE
- COMMUNICATIONS W/ BOX
- STORM PIPE W/ INLET & MANHOLE
- HISTORICAL FLOOR DRAIN W/ CLEANOUT
- SANITARY LINE W/ MANHOLE
- FORCE MAIN
- CHAIN LINK FENCE W/ GATE
- UNKNOWN UTILITIES- GEOPHYSICAL SURVEY
- HISTORICAL UTILITIES OR STRUCTURES (LINETYPES VARY)

- ug/L – MICROGRAMS PER LITER
- DPT – DIRECT PUSH DRILLING TECHNIQUE
- TCE – TRICHLOROETHENE
- GC – GAS CHROMATOGRAPH
- B5 – OCTOBER 2016 DPT POINT LOCATION WITH DETECTED TCE VALUES (S – SHALLOW; I – INTERMEDIATE; D – DEEP) FIELD GC (FROG 4000) USED FOR TCE DETECTION IN REAL TIME
- D9 – MAY 2017 DPT POINT LOCATION WITH DETECTED TCE VALUES (S – SHALLOW; I – INTERMEDIATE; D – DEEP) FIELD GC (FROG 4000) USED FOR TCE DETECTION IN REAL TIME
- EW-1 – PROPOSED 4" EXTRACTION WELL LOCATION
- PZ-2 – PROPOSED 1" TEMPORARY PIEZOMETER
- TPZ-1 – PROPOSED 2" TEMPORARY STILLING WELL FOR TIDAL STUDY
- SEMW-9S/I – PROPOSED 2" PERFORMANCE MONITORING WELL LOCATION I – INTERMEDIATE DEPTH S – SHALLOW DEPTH
- SEMW-8I 7,100 ug/L – 2" PERFORMANCE MONITORING WELL (INSTALLED IN 2013 AND 2016) I – INTERMEDIATE DEPTH S – SHALLOW DEPTH
- EXISTING GROUNDWATER MONITORING WELL
- DECEMBER 2016 SURFACE WATER LOCATION
- MODIFIED 1,000 ug/L TCE CONTOUR

REFERENCE PLANS & DATA:

1. UTILITY CROSS CONNECTION SURVEY PERFORMED BY TETRA TECH CREW: RAB & AN, DATED 10/6,10/10 & 10/11/2011.
2. SURVEYED LOCATIONS OF UNDERGROUND ELECTRIC, WATER, COMMUNICATION LINES, ARE BASED ON GEOPHYSICAL SURVEYS CONDUCTED BY ENVIROSCAN, INC. LANCASTER, PA, AND UNKNOWN FEATURES.
3. SEWER PIPE CCTV REPORTS PREPARED BY VIDEO PIPE SERVICES, INC. DATED 9/26 & 10/12/2011
4. BLOCK G TOPOGRAPHIC SURVEY UPDATE PREPARED BY TETRA TECH CREW: RAB & AN, DATED: 06/07 & 06/08/2011
5. PRE-CONSTRUCTION SURVEY OF STORM DRAIN LINES FOR BLOCK E PREPARED BY TETRA TECH CREW: RAB & AN, DATED 08/15 & 08/16/ 2011.
6. BACKGROUND BASEMAP AND PROPERTY LINES ARE FROM CHESAPEAKE PARK SITE PLAN - LMC PROPERTIES, INC PREPARED BY TAI CONSULTING ENGINEERS, DATED 4/15/01. BACKGROUND DATA IS NOT FIELD VERIFIED AND FOR REFERENCE ONLY.

TETRA TECH

www.tetratech.com

MARK	DATE	DESCRIPTION	BY

BLOCK F REMEDIAL ALTERNATIVES EVALUATION
BLOCK E AND F GROUNDWATER TCE PLUME

LOCKHEED MARTIN CORPORATION
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

DATE:	8/17/17
PROJECT NO.:	112IC03835
DRAWING SIZE:	ARCH E
DRAWN BY:	DWM
CHECKED BY:	BD

COPYRIGHT TETRA TECH INC.

FIGURE 1

C:\USERS\BORIS.DYNKIN\DOCUMENTS\LMC MRC\BLOVK F ALTERNATIVES EVALUATION\BLOCK F MAY 2017 DPT RESULTS.DWG DWM 8/17/17

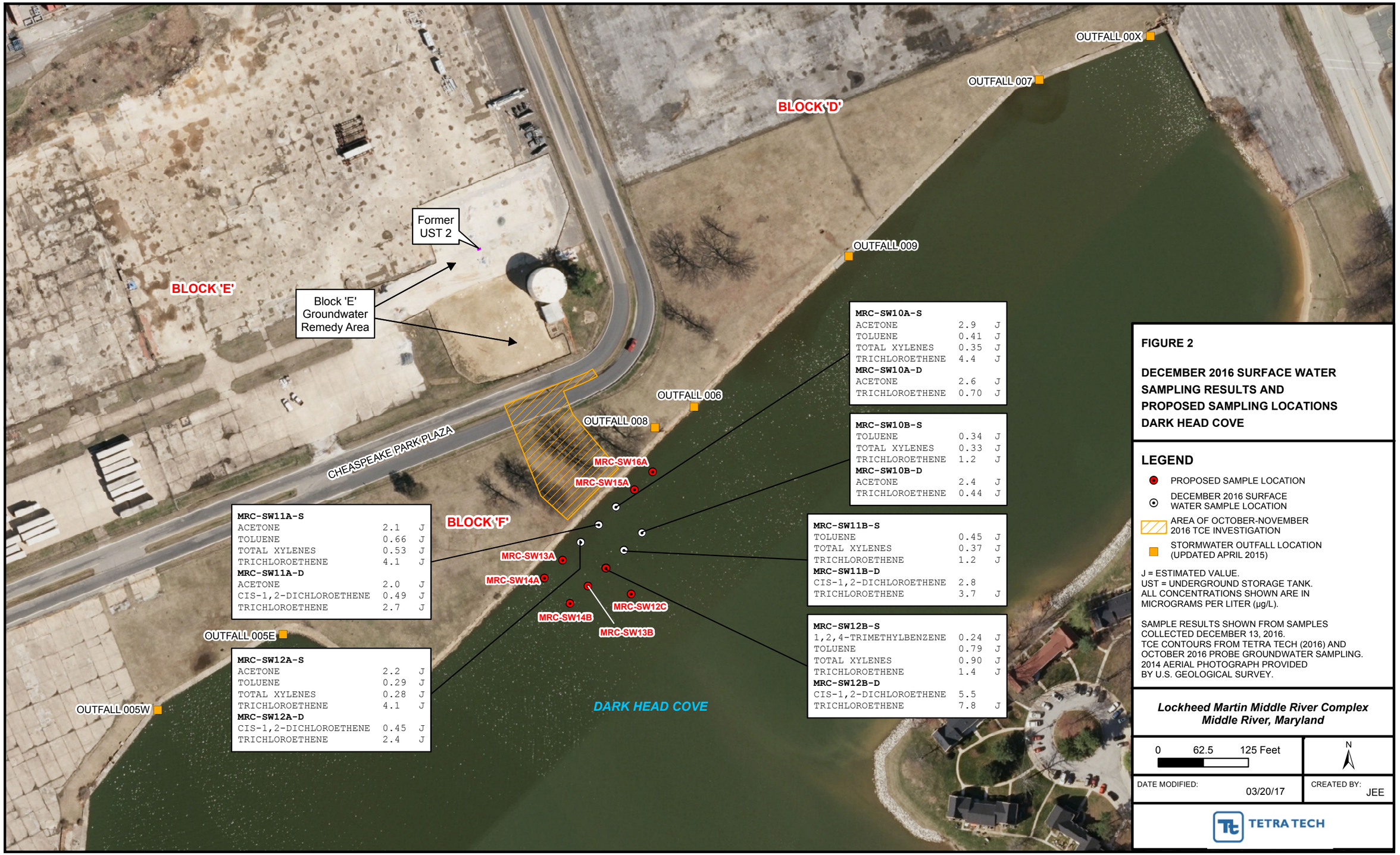


FIGURE 2

DECEMBER 2016 SURFACE WATER SAMPLING RESULTS AND PROPOSED SAMPLING LOCATIONS DARK HEAD COVE

LEGEND

- PROPOSED SAMPLE LOCATION
- DECEMBER 2016 SURFACE WATER SAMPLE LOCATION
- AREA OF OCTOBER-NOVEMBER 2016 TCE INVESTIGATION
- STORMWATER OUTFALL LOCATION (UPDATED APRIL 2015)

J = ESTIMATED VALUE.
UST = UNDERGROUND STORAGE TANK.
ALL CONCENTRATIONS SHOWN ARE IN MICROGRAMS PER LITER (µg/L).

SAMPLE RESULTS SHOWN FROM SAMPLES COLLECTED DECEMBER 13, 2016.
TCE CONTOURS FROM TETRA TECH (2016) AND OCTOBER 2016 PROBE GROUNDWATER SAMPLING.
2014 AERIAL PHOTOGRAPH PROVIDED BY U.S. GEOLOGICAL SURVEY.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 62.5 125 Feet

N

DATE MODIFIED: 03/20/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\dhc_samplocs_mar2017_alt.mxd)
03/20/17 -- JEE

6' CHAIN-LINK FENCE

B-4
S - ND
I - ND
D - ND

B-3
S - 12,000 ug/L
I - 11,000 ug/L
D - ND

SEMW-7I
22,000 ug/L

B-2
S - 1.5 ug/L
I - 26,000 ug/L
D - 38,000 ug/L

B-1
S - ND
I - ND
D - 28,000 ug/L

B-5
S - 148 ug/L
I - 2,688 ug/L
D - 7,237 ug/L

B-6
S - ND
I - 237 ug/L
D - 786 ug/L

MW-37B
18 ug/L

MW-37C
ND

24" RCP

1,000 ug/L TCE

EW-1

PZ-1

NOTE: DPT SAMPLE DEPTHS:
S: 15'-19'; I: 20'-24'; D: 26'-30'.

MW-112A
2.5 ug/L

EW-2

SEMW-8S
16,000 ug/L

SEMW-8I
7,100 ug/L

PZ-2

C-2
S - ND
I - ND
D - ND

C-1
S - 742 ug/L
I - ND
D - ND

C-3
S - 12,615 ug/L
I - 9,489 ug/L
D - 345 ug/L

C-4
S - 24,154 ug/L
I - 60,059 ug/L (64,000 ug/L)
D - 174 ug/L

C-5
S - 17,021 ug/L
I - 4,005 ug/L
D - 1,582 ug/L

C-6
S - 3,751 ug/L
I - 10,374 ug/L
D - 43,229 ug/L

C-7
S - ND
I - 257 ug/L
D - 1,285 ug/L

C-8
D - 376 ug/L

D-8
S - 1.4 ug/L
I - 11 ug/L
D - 0.7 ug/L

D-7
S - 22 ug/L
I - 47 ug/L
D - 38 ug/L

D-6
S - 1.2 ug/L
I - 35 ug/L
D - 2.4 ug/L

D-5
S - NA
I - 100 ug/L
D - 99 ug/L

SILT FENCE

-1.68
OUT-08

D-1
S - 2,486 ug/L
I - 2,902 ug/L
D - 5,045 ug/L

D-2
S - 5,100 ug/L
I - 2,750 ug/L (1,300 ug/L)
D - 1,300 ug/L

SEMW-9S/I

D-3
S - 11,000 ug/L
I - 8,619 ug/L (6,000 ug/L)
D - 460 ug/L

D-4
S - 18,000 ug/L
I - 184 ug/L (77 ug/L)
D - 45 ug/L

D-9
S - 1,323 ug/L
I - 2,185 ug/L
D - 61 ug/L

D-10
S - 7.6 ug/L
I - 4.6 ug/L
D - 3.4 ug/L

D-11
S - 5.2 ug/L
I - 1.2 ug/L
D - 3.2 ug/L

NOTE 1: MAY 2017 FIELD GC TCE RESULTS ARE SHOWN IN DARK GREEN

NOTE 2: OCTOBER 2016 FIELD GC TCE RESULTS ARE SHOWN IN BLACK

NOTE 3: OCTOBER 2016 TCE ANALYTICAL RESULTS ARE SHOWN IN DARK RED

NOTE 4: TCE SAMPLE S DEPTHS:
S: 15'-19'; I: 20'-24'; D: 26'-30'

MAY 2017 DPT FIELD GC INVESTIGATION TCE VALUES ARE SHOWN IN BLACK.

OCTOBER 2016 DPT FIELD GC INVESTIGATION TCE VALUES ARE SHOWN IN BLACK.

OCTOBER 2016 DPT INVESTIGATION ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN DARK RED.

NOVEMBER 2016 NEW MONITORING WELLS ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN MAGENTA.

MAY 2015 ANALYTICAL LABORATORY TCE VALUES ARE SHOWN IN BLUE.

LEGEND

- PROPERTY LINE W/ MONUMENTS
- TREELINE
- BUILDING - MAJOR
- EXISTING UTILITIES
- WATER LINE W/ VALVE & HYDRANT
- GAS LINE W/ METER & VALVE
- UNDERGROUND ELECTRIC
- ABOVE-GROUND ELECTRIC W/ POLE
- COMMUNICATIONS W/ BOX
- STORM PIPE W/ INLET & MANHOLE
- HISTORICAL FLOOR DRAIN W/ CLEANOUT
- SANITARY LINE W/ MANHOLE
- FORCE MAIN
- CHAIN LINK FENCE W/ GATE
- UNKNOWN UTILITIES- GEOPHYSICAL SURVEY
- HISTORICAL UTILITIES OR STRUCTURES (LINETYPES VARY)
- ug/L MICROGRAMS PER LITER
- DPT DIRECT PUSH DRILLING TECHNIQUE
- TCE TRICHLOROETHENE
- GC GAS CHROMATOGRAPH
- B5 OCTOBER 2016 DPT POINT LOCATION WITH DETECTED TCE VALUES (S - SHALLOW, I - INTERMEDIATE, D - DEEP) FIELD GC (FROG 4000) USED FOR TCE DETECTION IN REAL TIME
- D9 MAY 2017 DPT POINT LOCATION WITH DETECTED TCE VALUES (S - SHALLOW, I - INTERMEDIATE, D - DEEP) FIELD GC (FROG 4000) USED FOR TCE DETECTION IN REAL TIME
- EW-1 PROPOSED 4" EXTRACTION WELL LOCATION
- PZ-2 PROPOSED 1" TEMPORARY PIEZOMETER
- TPZ-1 PROPOSED 2" TEMPORARY STILLING WELL FOR TIDAL STUDY
- SEMW-9S/I PROPOSED 2" PERFORMANCE MONITORING WELL LOCATION I - INTERMEDIATE DEPTH S - SHALLOW DEPTH
- SEMW-8I 7,100 ug/L 2" PERFORMANCE MONITORING WELL (INSTALLED IN 2013 AND 2016) I - INTERMEDIATE DEPTH S - SHALLOW DEPTH
- EXISTING GROUNDWATER MONITORING WELL
- DECEMBER 2016 SURFACE WATER LOCATION
- MODIFIED 1,000 ug/L TCE CONTOUR

GRAPHIC SCALE
0' 25'

MRC-SW8A

OUTFALL 08
-1.68

MRC-

MRC-SW10A

TPZ-1

MRC-SW8B

MRC-SW11A

MRC-SW12A

DARK HEAD COVE

MRC-SW10B

MRC-SW11B

MRC-SW12B

7500

REFERENCE PLANS & DATA:

1. UTILITY CROSS CONNECTION SURVEY PERFORMED BY TETRA TECH. CREW: RAB & AN. DATED 10/5,10/10 & 10/11/2011
2. SURVEYED LOCATIONS OF UNDERGROUND ELECTRIC, WATER, COMMUNICATION LINES, ARE BASED ON GEOPHYSICAL SURVEYS CONDUCTED BY ENVIROSCAN, INC. LANCASTER, PA, AND UNKNOWN FEATURES.
3. SEWER PIPE CCTV REPORTS PREPARED BY VIDEO PIPE SERVICES, INC. DATED 9/28 & 10/12/2011
4. BLOCK G TOPOGRAPHIC SURVEY UPDATE PREPARED BY TETRA TECH. CREW: RAB & AN. DATED 09/07 & 09/08/2011
5. PRE-CONSTRUCTION SURVEY OF STORM DRAIN LINES FOR BLOCK G PREPARED BY TETRA TECH. CREW: RAB & AN. DATED 09/15 & 09/16/ 2011.
6. BACKGROUND BASEMAP AND PROPERTY LINES ARE FROM CHESAPEAKE PARK SITE PLAN - LMC PROPERTIES, INC PREPARED BY TAI CONSULTING ENGINEERS, DATED 4/1991. BACKGROUND DATA IS NOT FIELD VERIFIED AND FOR REFERENCE ONLY.

TETRA TECH
www.tetratech.com

MARK	DATE	DESCRIPTION	BY

BLOCK F REMEDIAL ALTERNATIVES EVALUATION
BLOCK F FIELD GC TCE RESULTS FOR MAY 2017

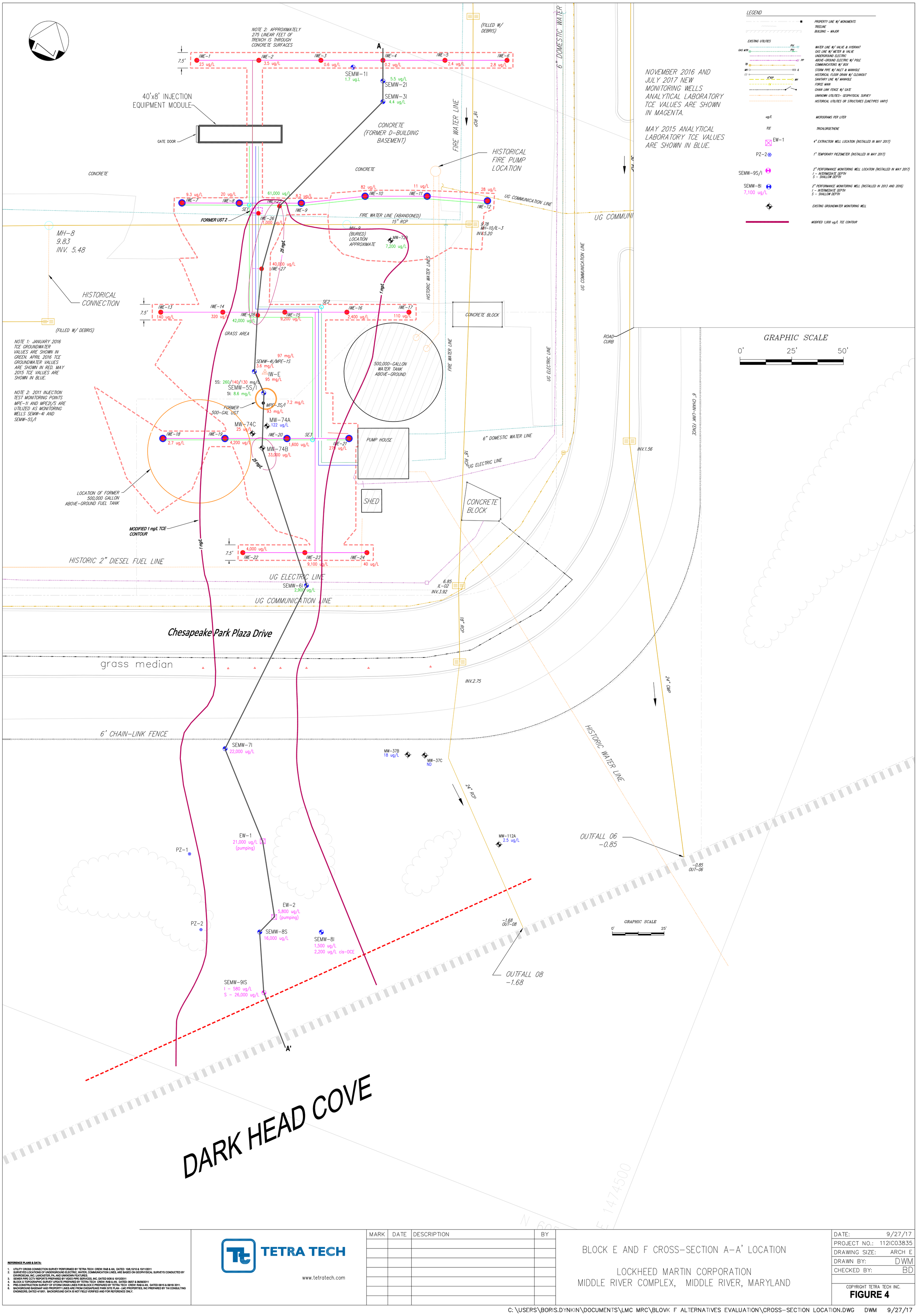
LOCKHEED MARTIN CORPORATION
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

DATE:	8/17/17
PROJECT NO.:	112IC03835
DRAWING SIZE:	ARCH E
DRAWN BY:	DWM
CHECKED BY:	BD

COPYRIGHT TETRA TECH INC.

FIGURE 3

C:\USERS\BORIS.DYNKIN\DOCUMENTS\LMC MRC\BLOVK F ALTERNATIVES EVALUATION\BLOCK F MAY 2017 DPT RESULTS.DWG DWM 8/17/17



REFERENCE PLANS & DATA:

1. UTILITY CROSS CONNECTION SURVEY PERFORMED BY TETRA TECH CREW: RAB & AN. DATED 10/6,10/10 & 10/11/2011.
2. SURVEYED LOCATIONS OF UNDERGROUND ELECTRIC, WATER, COMMUNICATION LINES, ARE BASED ON GEOPHYSICAL SURVEYS CONDUCTED BY ENVIROSCAN, INC. LANCASTER, PA, AND UNKNOWN FEATURES.
3. SEWER PIPE CCTV REPORTS PREPARED BY VIDEO PIPE SERVICES, INC. DATED 9/26 & 10/12/2011
4. BLOCK G TOPOGRAPHIC SURVEY UPDATE PREPARED BY TETRA TECH CREW: RAB & AN, DATED: 06/07 & 06/08/2011
5. PRE-CONSTRUCTION SURVEY OF STORM DRAIN LINES FOR BLOCK E PREPARED BY TETRA TECH CREW: RAB & AN, DATED 08/15 & 08/16/ 2011.
6. BACKGROUND BASEMAP AND PROPERTY LINES ARE FROM CHESAPEAKE PARK SITE PLAN - LMC PROPERTIES, INC PREPARED BY TAI CONSULTING ENGINEERS, DATED 4/15/01. BACKGROUND DATA IS NOT FIELD VERIFIED AND FOR REFERENCE ONLY.

TETRA TECH
www.tetratech.com

MARK	DATE	DESCRIPTION	BY

BLOCK E AND F CROSS-SECTION A-A' LOCATION

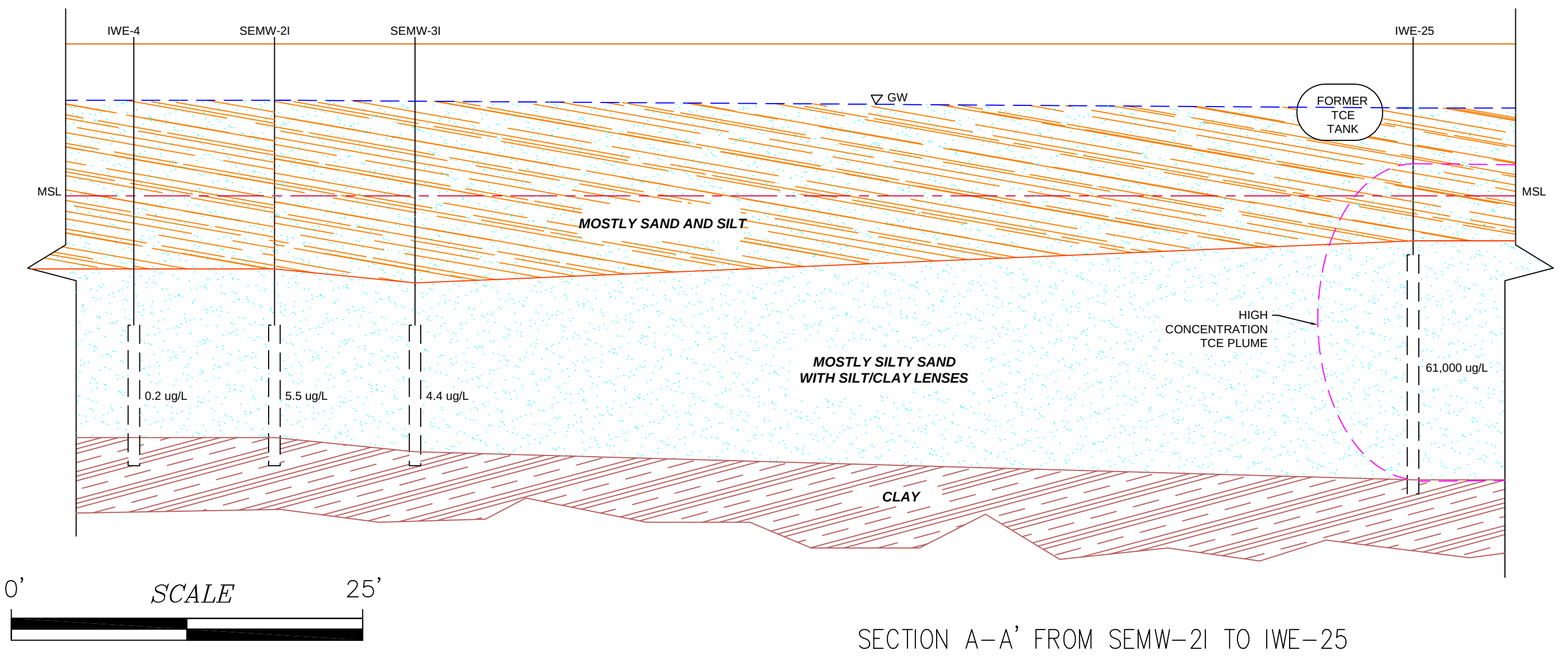
LOCKHEED MARTIN CORPORATION
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

DATE:	9/27/17
PROJECT NO.:	112IC03835
DRAWING SIZE:	ARCH E
DRAWN BY:	DWM
CHECKED BY:	BD

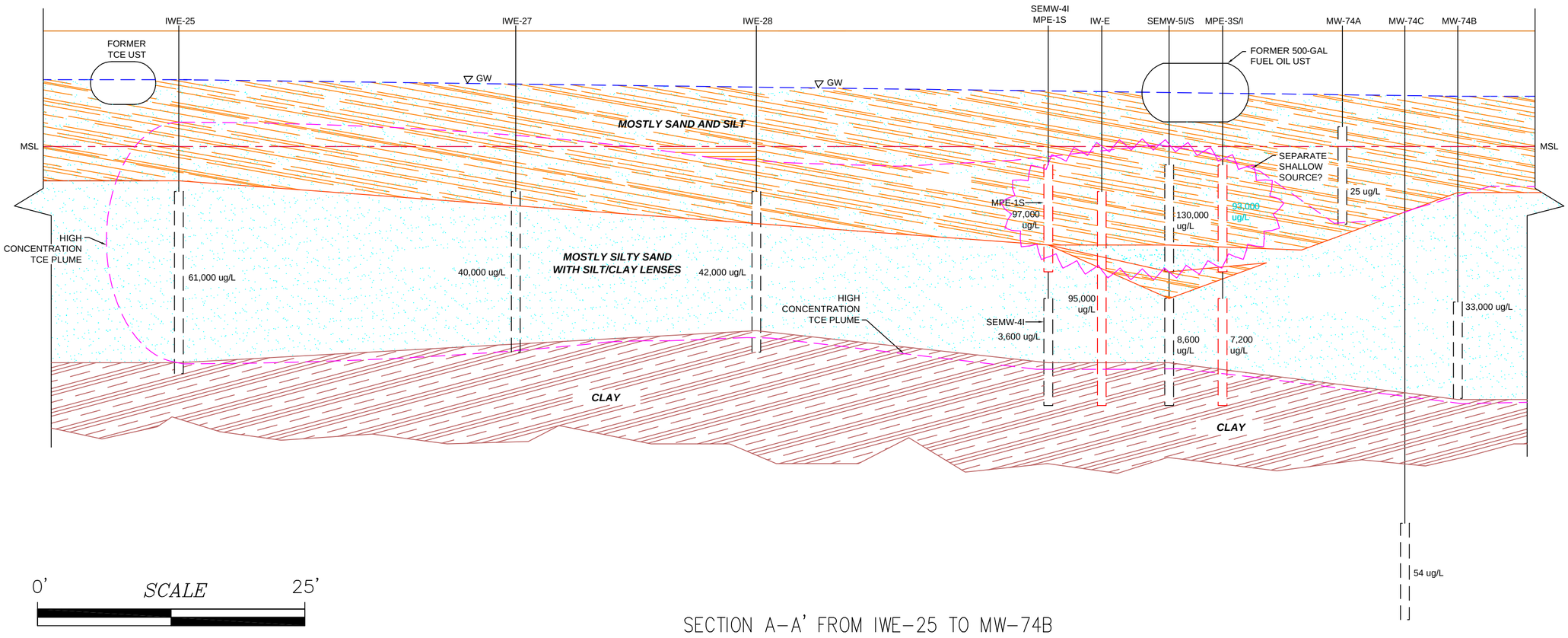
COPYRIGHT TETRA TECH INC.

FIGURE 4

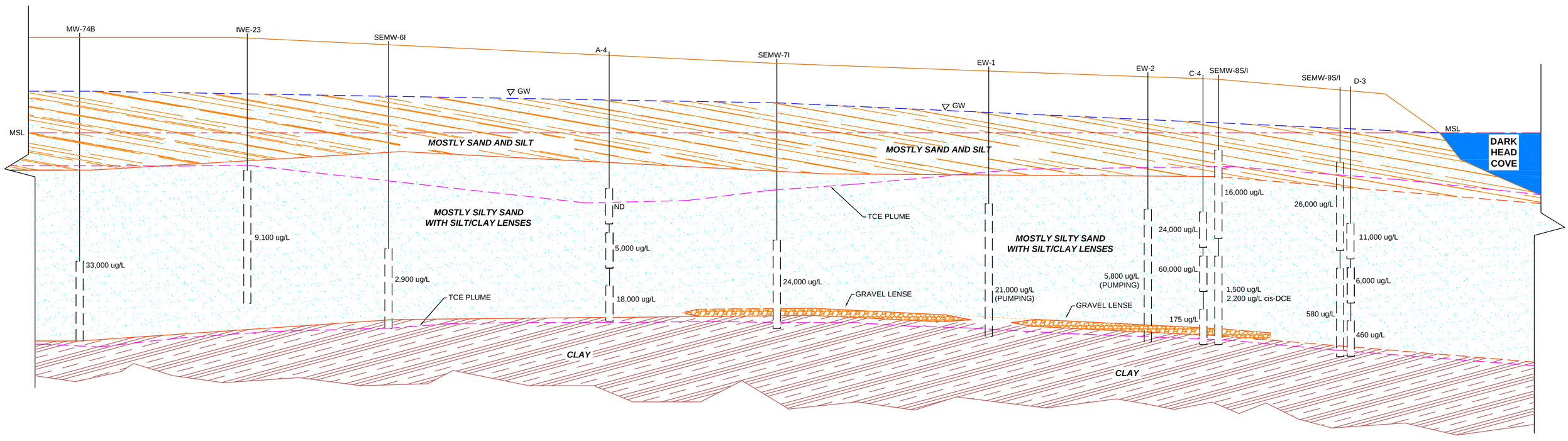
C:\USERS\BORIS.DYNKIN\DOCUMENTS\LMC MRC\BLOVK F ALTERNATIVES EVALUATION\CROSS-SECTION LOCATION.DWG DWM 9/27/17



SECTION A–A' FROM SEMW–2I TO IWE–25



SECTION A–A' FROM IWE–25 TO MW–74B



SECTION A–A' FROM MW–74B TO DARK COVE

TETRA TECH

www.tetratech.com

MARK	DATE	DESCRIPTION	BY

CROSS–SECTION A–A'

LOCKHEED MARTIN CORPORATION
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

DATE:	9/27/17
PROJECT NO.:	112IC03835
DWG. SIZE:	ARCH A
DRAWN BY:	RJD
CHECKED BY:	RB

COPYRIGHT TETRA TECH INC.

FIGURE 5

C:\USERS\BORIS.DYNKIN\DOCUMENTS\LMC MRC\BLOVK F ALTERNATIVES EVALUATION\CCROSS SECTIONS 9–27–17.DWG DWM 9/27/17

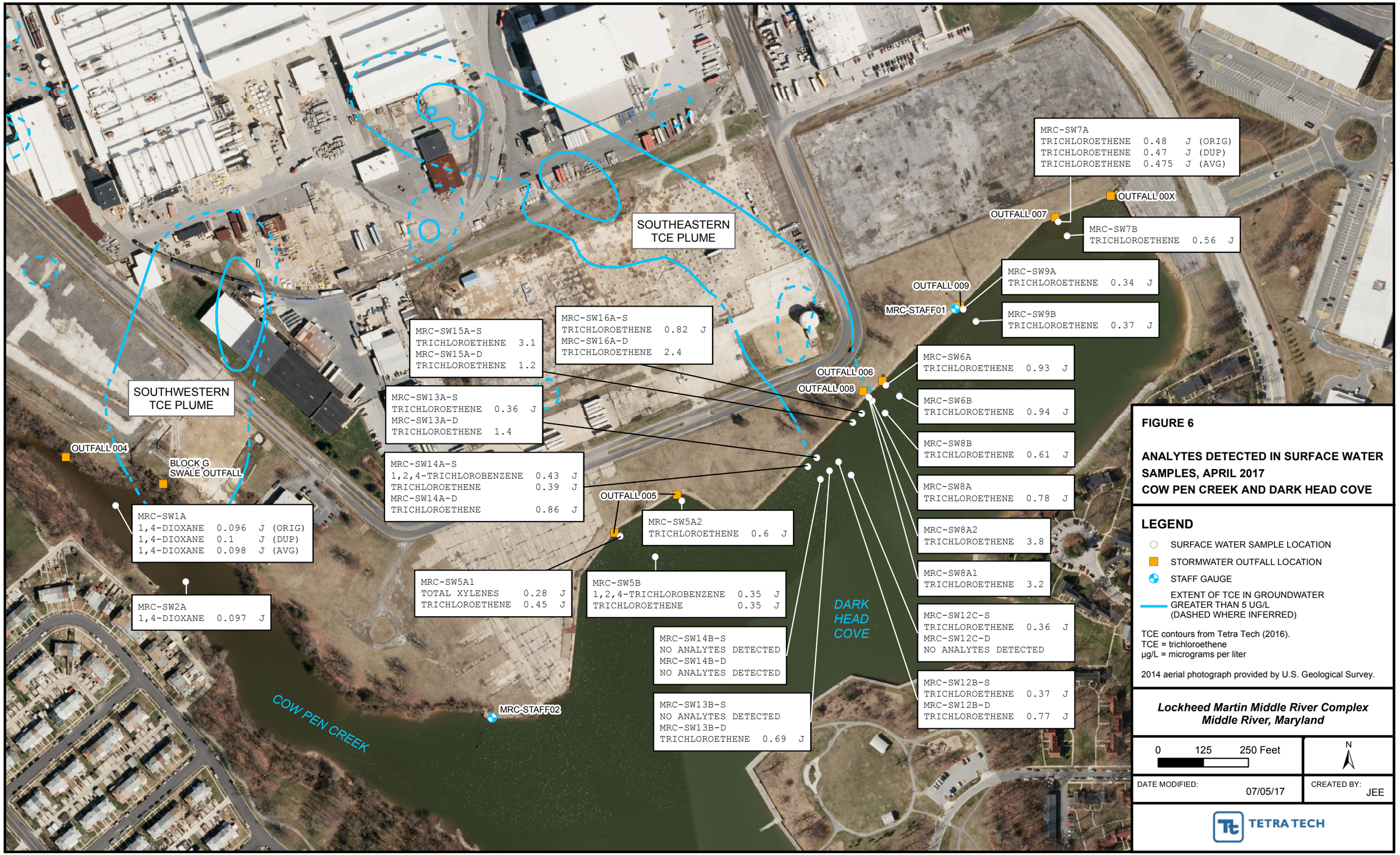


FIGURE 6

ANALYTES DETECTED IN SURFACE WATER SAMPLES, APRIL 2017
COW PEN CREEK AND DARK HEAD COVE

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- EXTENT OF TCE IN GROUNDWATER GREATER THAN 5 UG/L (DASHED WHERE INFERRED)

TCE contours from Tetra Tech (2016).
TCE = trichloroethene
µg/L = micrograms per liter

2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 125 250 Feet

N

DATE MODIFIED: 07/05/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sw_tags_apr2017.mxd)
07/05/17 -- JEE

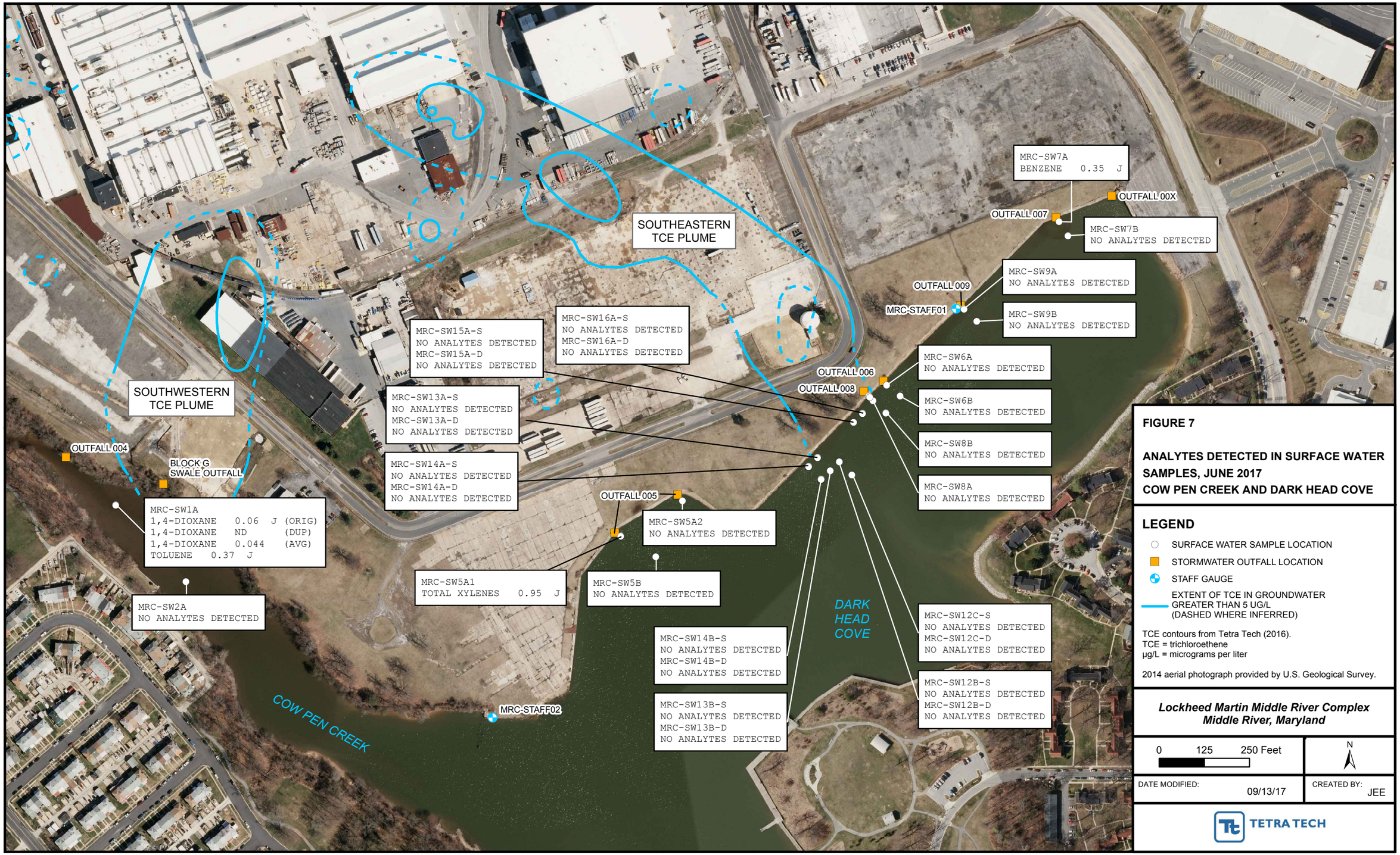


FIGURE 7

ANALYTES DETECTED IN SURFACE WATER SAMPLES, JUNE 2017
COW PEN CREEK AND DARK HEAD COVE

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- EXTENT OF TCE IN GROUNDWATER GREATER THAN 5 UG/L (DASHED WHERE INFERRED)

TCE contours from Tetra Tech (2016).
TCE = trichloroethene
µg/L = micrograms per liter

2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 125 250 Feet

N

DATE MODIFIED: 09/13/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sw_tags_jun2017.mxd)
09/13/17 -- JEE

TABLES

Table 1
Block F Pumping Test Pumping Parameters Summary
Lockheed Martin Middle River Complex, Middle River, MD

EW-1 (low yield well)	Units	Low Rate	Medium Rate	High Rate	Test Total
Total Duration	Hours	1.4	1.2	20.5	23
Steady flow	gpm	0.27	0.38	0.65	NA
Drawdown	feet	7.61	12.02	22.25	NA
Total Volume Pumped	gallons	26	30	788	844
EW-2 (high yield well)	**Units**	**Low Rate**	**Medium Rate**	**High Rate**	**Test Total**
Total Duration	Hours	0.9	0.8	38.0	40
Steady flow	gpm	1.43	2.6	4.3	NA
Drawdown	feet	5.25	11.22	20.23	NA
Total Volume Pumped	gallons	70	133	10923	11126

Table 2
Field GC and Analytical Laboratory TCE Screening Results for Block F
Lockheed Martin Middle River Complex, Middle River, Maryland

DPT Point ID	TCE by Field GC (ug/L)			TCE by Analytical Lab (ug/L)		
	Shallow 15 to 19 feet	Intermediate 20 to 24 feet	Deep 26 to 30 feet	Shallow 15 to 19 feet	Intermediate 20 to 24 feet	Deep 26 to 30 feet
A-6	NS	9,039	14,918			
A-4	ND	5,000	18,000			
A-7	NS	223	15,442			
B-4	ND	ND	ND			
B-6	ND	237	786			
B-1	ND	ND	28,000			
B-2	2	26,000	38,000			
B-3	12,000	11,000	ND			
B-5	148	2,688	7,237			
C-1	742	ND	ND			
C-2	ND	ND	ND			
C-8	NS	NS	376			
C-3	12,615	9,489	345			
C-4	24,154	60,059	174		64,000	
C-5	17,021	4,005	1,582			
C-6	3,751	10,374	43,229			
C-7	ND	257	1,285			
D-1	2,486	2,902	5,045			
D-2	NS	2,750	NS	5,100	1,300	1,300
D-3	NS	8,619	NS	11,000	6,000	460
D-4	NS	184	NS	18,000	77	45
D-5	NS	100	99			
D-6	1.2	35	2.4			
D-7	22	47	38			
D-8	1.4	11	0.7			
D-9	1,323	2,185	81			
D-10	7.6	4.6	3.4			
D-11	5.2	1.2	3.2			
Average values[1]	**8,167**	**9,673**	**13,334**			
Median values[1]	**3,751**	**4,503**	**7,237**			

For all intervals (shallow, intermediate and deep) within 1000 ug/L TCE contour

Average[1]	**10,569**	**ug/L**
Median[1]	**5,023**	**ug/L**

[1]**Average and median values are calculated for the sampling points inside 1,000 ug/L TCE contour (highlighted yellow). Analytical laboratory results were used when available for these calculations. ND (not detected) values for TCE were interpreted as zero values.**

GC	gas chromatograph (model FROG 4000)
TCE	trichloroethene
ug/L	micrograms per liter
DPT	direct push drilling technology
NS	not sampled
ND	not detected

Table 3
Block F Monitoring Well Analytical Results Summary
Lockheed Martin Middle River Complex, Middle River, MD

Parameter	Units	SEMW-7I		SEMW-8I		SEMW-9I		SEMW-9S	
		Before Pumping	After Pumping	Before Pumping	After Pumping	Before Pumping	After Pumping	Before Pumping	After Pumping
TCE	ug/L	26000	24000	1100	1500	940	580	15000	26000
cis-1,2-DCE	ug/L	ND	ND	1500	2200	15	13	ND	ND
VC	ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Alkalinity	mg/L					15	5.8	56	43
Bromide	mg/L					0.24	0.19	0.20	0.21
Sulfate	mg/L					8.2	7.2	88	67
Nitrate as N	mg/L					0.18	0.40	0.12	0.065
Iron	ug/L					1300	380	2000	140
Manganese	ug/L					320	250	320	340
Salinity	NA					ND	ND	ND	ND
TDS	mg/L					170	150	620	560
Hardness as CaCo3	mg/L					38	33	150	120
Calcium hardness as CaCO3	mg/L					18	12	92	74
Magnesium hardness as CaCO3	mg/L					21	21	61	48
Ethane	mg/L			0.037		0.0065	ND		
Acetylene	mg/L			0.0034		0.0034			
Butane	mg/L			0.0085		0.010			
Ethene	mg/L			0.091		0.0069	ND		
Methane	mg/L			0.38		0.0079	0.18		
Propane	mg/L			0.0075		0.0090			
Dehalococcoides	cells/mL			<0.5		<0.5			
tceA Reductase	cells/mL			<0.5		<0.5			
BAV1 VC Reductase	cells/mL			<0.5		<0.5			
VC Reductase	cells/mL			<0.5		<0.5			
Dehlobacter spp.	cells/mL			434		30600			
SpCond. (field)	mS/cm	0.133	0.135	0.329	0.336	0.196	0.173	0.686	0.628
pH (field)	S.U.	4.43	4.62	6.55	7.26	5.03	4.91	5.51	6.01
Dissolved oxygen (fld)	mg/L	1.57	1.47	0	0	0.38	0.1	2.34	0.3
ORP (field)	mVolts	399	245	-145	-102	-255	-165	135	89

Table 4
Block F Pumping Test Analytical Results Summary
Lockheed Martin Middle River Complex, Middle River, MD

Parameter	EW-1 start	EW-1 mid	EW-1 end	Dark Head Cove	Units
EW-1 pumping test (low yield well)					
TCE	21000	21000	21000	NA	ug/L
Bromide	0.32	0.32	0.32	3.9	mg/L
Sulfate	14	15	15	130	mg/L
TDS	190	200	280	1500	mg/L
iron	430	450	1100	120	ug/L
Alkalinity	3.1	3.2	3.1	45	mg/L
SpCond. (field)	0.286		0.277	3.05	mS/cm
Final pumping rate	0.65	gpm			
Final TCE mass rate	0.16	lbs/day			

Parameter	EW-2 start	EW-2 mid	EW-2 end	Dark Head Cove	Units
EW-2 pumping test (high yield well)					
TCE	3200	3900	5800	NA	ug/L
Bromide	0.76	0.79	1	3.9	mg/L
Sulfate	7	7	7.2	130	mg/L
TDS	150	150	130	1500	mg/L
iron	1300	120	460	120	ug/L
Alkalinity	4.9	ND	ND	45	mg/L
SpCond. (field)	0.194	0.183	0.183	3.05	mS/cm
Final pumping rate	4.3	gpm			
Final TCE mass rate	0.30	lbs/day			

ATTACHMENT A—BORING LOGS

WELL NUMBER MRC-EW-1

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/20/17 **COMPLETED** 6/20/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8 inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Well screened from 15-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605119.52 ft **EASTING** 1474274.04 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	LABORATORY SAMPLE INTERVAL	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		Topsoil		0.5 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	2.5 Casing Top Elev: 3 (ft) Casing Type: 4-inch PVC; Cement
		SC		2.0 SANDY CLAY: Sandy clay, fine grained sand, low to medium plasticity, soft. Slightly moist, light brown.	1.0
		CL		SILTY CLAY: Silty clay, low plasticity, moderately friable, moderately hard. Slightly moist, red/brown.	
5		SM		4.5 SILTY SAND: Silty sand, fined grained sand, soft, very slightly cohesive. Moist to wet, light brown mottled cream.	-1.5 Cement and bentonite grout
				5.5 SILTY CLAY: Silty clay with intermittent 0.1 ft lenses with increased sand content, moderately hard, low to medium plasticity. Slightly moist, red/brown.	-2.5
10		CL			Bentonite Chips
				13.0	-10.0
15				SAND: Sand with some silt, fine to medium grained sand, very soft, very slightly cohesive. Wet to saturated, red/brown.	#1 Silica Filter Pack
	16-20(ft)				
20		SW			
25					4-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
	26-30(ft)				
30				30.5	-27.5 Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

WELL NUMBER MRC-EW-2

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/20/17 **COMPLETED** 6/20/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8 inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Well screened from 15-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605087.43 ft **EASTING** 1474292.54 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	LABORATORY SAMPLE INTERVAL	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		Topsoil		0.3 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	2.7 Casing Top Elev: 3 (ft) Casing Type: 4-inch PVC; Cement
		SC		SANDY CLAY: Sandy clay, fine grained sand, low to medium plasticity, soft. Slightly moist, light brown.	
		CL		2.5	0.5
				3.0 SILTY CLAY: Silty clay, low plasticity, moderately friable, moderately hard. Slightly moist, red/brown.	0.0
		SM		3.2	-0.2
5				SILTY SAND: Silty sand, fined grained sand, soft, very slightly cohesive. Moist to wet, light brown mottled cream.	Cement and bentonite grout
		CL		SILTY CLAY: Silty clay with intermittent 0.1 ft lenses with increased sand content, moderately hard, low to medium plasticity. Slightly moist, red/brown.	
10				10.0	-7.0
	10-14(ft)			SAND: Sand with some silt, fine to medium grained sand, very soft, very slightly cohesive. Wet to saturated, red/brown.	Bentonite Chips
15					#1 Silica Filter Pack
20	18-22(ft)	SW			4-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
25					
	26-30(ft)				
30				30.5	-27.5 Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

WELL NUMBER MRC-SEMW-9S/I

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/21/17 **COMPLETED** 6/21/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8(S)/6(I) inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Screened intervals 6-16 feet and 20-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605051.56 ft **EASTING** 1474301.29 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0	Topsoil		0.2 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	Casing Top Elev: 3 (ft) Casing Type: 2-inch PVC
	ML		1.5	2.9
	ML		2.0 SANDY SILT: Sandy silt, not cohesive. Dry, brown.	1.5
	CL		3.0 SANDY SILT: Sandy silt with some clay, not cohesive, friable. Dry, brown.	1.0
	CL		SANDY, SILTY, CLAY: Sandy, silty, clay, fine grained sand, low plasticity, friable. Dry, red/brown.	0.0
5	CL		SILTY CLAY: Silty clay, low plasticity, friable. Very slightly moist, red/brown mottled cream.	
			7.0	-4.0
	SM		SAND: Fine grained sand with trace silt, slightly cohesive, moderately loose. Wet, red/brown mottled cream.	
			9.0	-6.0
10	CL		10.0 SILTY CLAY: Silty clay, low plasticity, friable. Very slightly moist, red/brown mottled cream.	-7.0
			SAND: Fine grained sand with trace silt, slightly cohesive, moderately loose. Wet, red/brown mottled cream.	
15				
20	SM			
25				
			28.0	-25.0
30	CL		SANDY CLAY: Sandy clay with trace gravel, medium plasticity. Slightly moist, red/brown mottled light brown.	
			30.5	-27.5

Cement
Bentonite Chips
#1 Silica Filter Pack
2-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
Bottom Cap
Bentonite Chips
#1 Silica Filter Pack
2-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

WELL NUMBER MRC-EW-1

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/20/17 **COMPLETED** 6/20/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8 inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Well screened from 15-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605119.52 ft **EASTING** 1474274.04 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	LABORATORY SAMPLE INTERVAL	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		Topsoil		0.5 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	2.5 Casing Top Elev: 3 (ft) Casing Type: 4-inch PVC; Cement
		SC		2.0 SANDY CLAY: Sandy clay, fine grained sand, low to medium plasticity, soft. Slightly moist, light brown.	1.0
		CL		SILTY CLAY: Silty clay, low plasticity, moderately friable, moderately hard. Slightly moist, red/brown.	
5		SM		4.5 SILTY SAND: Silty sand, fined grained sand, soft, very slightly cohesive. Moist to wet, light brown mottled cream.	-1.5 Cement and bentonite grout
				5.5 SILTY CLAY: Silty clay with intermittent 0.1 ft lenses with increased sand content, moderately hard, low to medium plasticity. Slightly moist, red/brown.	-2.5
10		CL			Bentonite Chips
				13.0	-10.0
15				SAND: Sand with some silt, fine to medium grained sand, very soft, very slightly cohesive. Wet to saturated, red/brown.	#1 Silica Filter Pack
	16-20(ft)				
20		SW			
25					4-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
	26-30(ft)				
30				30.5	-27.5 Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

WELL NUMBER MRC-EW-2

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/20/17 **COMPLETED** 6/20/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8 inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Well screened from 15-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605087.43 ft **EASTING** 1474292.54 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	LABORATORY SAMPLE INTERVAL	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		Topsoil		0.3 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	2.7 Casing Top Elev: 3 (ft) Casing Type: 4-inch PVC; Cement
		SC		SANDY CLAY: Sandy clay, fine grained sand, low to medium plasticity, soft. Slightly moist, light brown.	
		CL		2.5	0.5
				3.0 SILTY CLAY: Silty clay, low plasticity, moderately friable, moderately hard. Slightly moist, red/brown.	0.0
		SM		3.2	-0.2
5				SILTY SAND: Silty sand, fined grained sand, soft, very slightly cohesive. Moist to wet, light brown mottled cream.	Cement and bentonite grout
		CL		SILTY CLAY: Silty clay with intermittent 0.1 ft lenses with increased sand content, moderately hard, low to medium plasticity. Slightly moist, red/brown.	
10				10.0	-7.0
	10-14(ft)			SAND: Sand with some silt, fine to medium grained sand, very soft, very slightly cohesive. Wet to saturated, red/brown.	Bentonite Chips
15					#1 Silica Filter Pack
20	18-22(ft)	SW			4-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
25					
	26-30(ft)				
30				30.5	-27.5 Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

WELL NUMBER MRC-SEMW-9S/I

Tetra Tech
20251 Century Blvd

CLIENT Lockheed Martin Corporation, Bethesda, Maryland
PROJECT NAME MRC Downgradient TCE Investigation
PROJECT NUMBER 112IC07896
PROJECT LOCATION Middle River Complex
DATE STARTED 6/21/17 **COMPLETED** 6/21/17
GROUND ELEVATION 3 ft **HOLE SIZE** 8(S)/6(I) inches
DRILLING CONTRACTOR Cascade Drilling Co., Marietta, Ohio
DRILLING METHOD Rotosonic with continuous 10 foot core barrell sampling
NOTES Screened intervals 6-16 feet and 20-30 feet below grade.
LOGGED BY S. Cameron
NORTHING 605051.56 ft **EASTING** 1474301.29 ft **DATUM:** MD STATE NAD 1983

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0	Topsoil		0.2 TOPSOIL: Sandy silt, fine grained sand, slightly moist, trace organics such as grass roots. Slightly moist, red/brown.	Casing Top Elev: 3 (ft) Casing Type: 2-inch PVC
	ML		1.5	2.9
	ML		2.0 SANDY SILT: Sandy silt, not cohesive. Dry, brown.	1.5
	CL		3.0 SANDY SILT: Sandy silt with some clay, not cohesive, friable. Dry, brown.	1.0
	CL		SANDY, SILTY, CLAY: Sandy, silty, clay, fine grained sand, low plasticity, friable. Dry, red/brown.	0.0
5	CL		SILTY CLAY: Silty clay, low plasticity, friable. Very slightly moist, red/brown mottled cream.	
			7.0	-4.0
	SM		SAND: Fine grained sand with trace silt, slightly cohesive, moderately loose. Wet, red/brown mottled cream.	
			9.0	-6.0
10	CL		10.0 SILTY CLAY: Silty clay, low plasticity, friable. Very slightly moist, red/brown mottled cream.	-7.0
			SAND: Fine grained sand with trace silt, slightly cohesive, moderately loose. Wet, red/brown mottled cream.	
15				
20	SM			
25				
			28.0	-25.0
30	CL		SANDY CLAY: Sandy clay with trace gravel, medium plasticity. Slightly moist, red/brown mottled light brown.	
			30.5	-27.5

Cement
Bentonite Chips
#1 Silica Filter Pack
2-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
Bottom Cap
Bentonite Chips
#1 Silica Filter Pack
2-inch dia.,10 feet; 10-slot manufactured continuous slot PVC well screen
Bottom Cap

Bottom of borehole at 30.5 feet.

TT SOIL BORING E GAMMA - GINT STD US LAB.GDT - 6/21/17 14:52 - C:\USERS\STUART.CAMERON\DOCUMENTS\2017 BLOCK E TCE\062117 WELL DRILLING.GPJ

ATTACHMENT B—GRAIN AND WELL-SCREEN SIZE SELECTION

Block F Pumping Wells Grain Size Distribution

Sieve #	Opening size (inch)	EW-1 16' to 20'	EW-1 26' to 30'	EW-2 18' to 22'	EW-2 26' to 30'
		% retained			
3/8	0.375	0	6.5	0	0
4	0.187	0.1	9.3	0	0
10	0.0787	0.6	11	0	0
20	0.0331	1	13.6	0.3	0.3
40	0.0165	2	18.1	1.5	9.8
60	0.0098	17.9	36.1	22.7	70.7
80	0.007	50.2	47.9	57.2	82.9
100	0.0059	65.8	51.8	68.8	85.5
200	0.0029	77.5	56.7	78.6	87.7
NA	0	100	100	100	100

Calculated values

Symbol	% retained	Opening size (inches)				
d_{30}	30	0.0088	0.0121	0.0092	0.0143	Optimum screen size when d_{40}/d_{90}>6 and fairly firm (soft)[1]
d_{40}	40	0.0079	0.0089	0.0084	0.0132	
d_{50}	50	0.0070	0.0064	0.0076	0.0121	Optimum screen size when d_{40}/d_{90}>6 and easily caved (soft)[1]
d_{90}	90	0.0013	0.0007	0.0014	0.0024	
Uniformity (d_{40}/d_{90})		6.1	13.3	6.2	5.6	

Screen slot size selected		
EW-1	**0.01**	inches
EW-2	**0.01**	inches

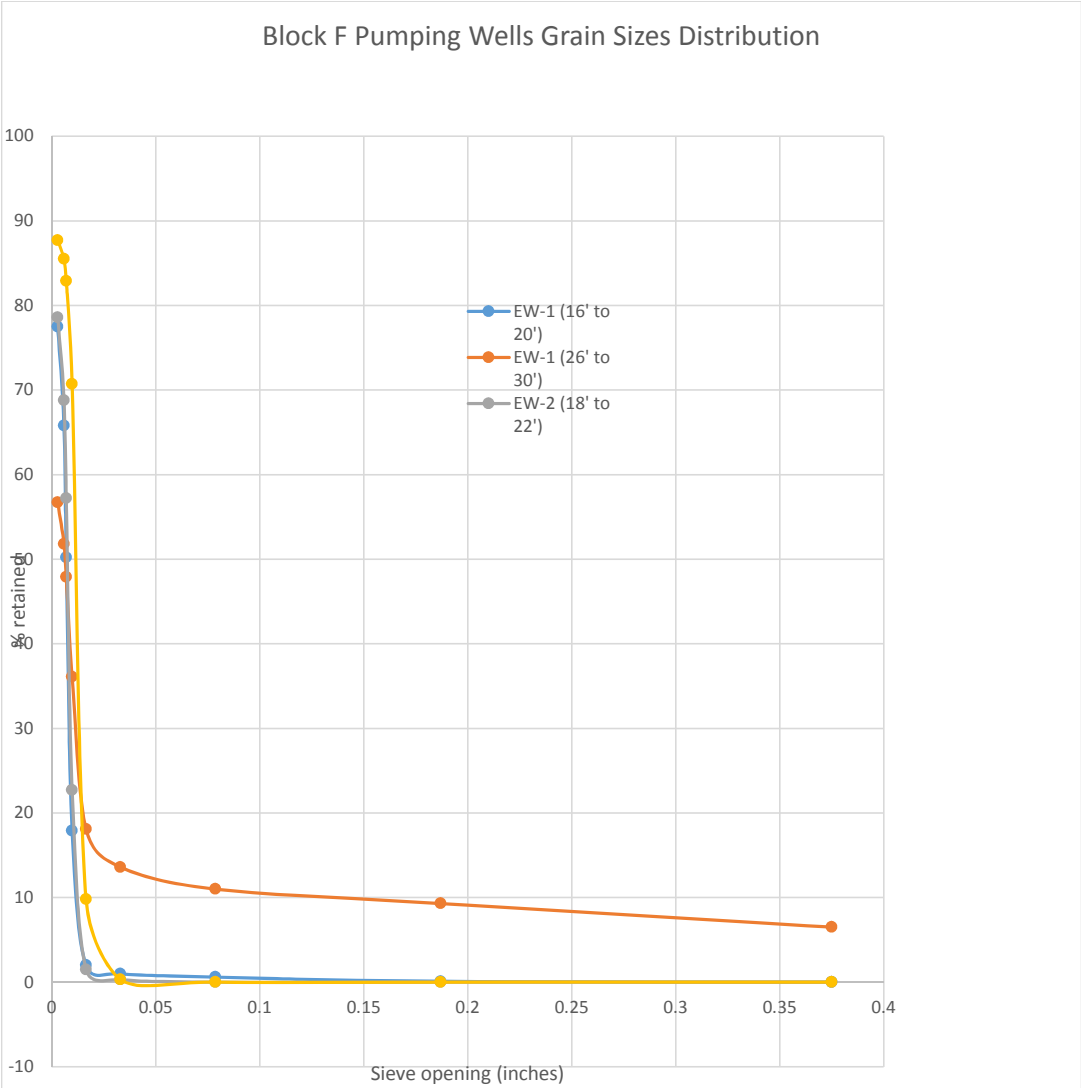
	20-30 sand pack	Sand pack to formation d_{50} ratio				
d_{50}	**0.031**	4.4	4.8	4.1	2.6	20-30 sand pack is OK for both wells[1]

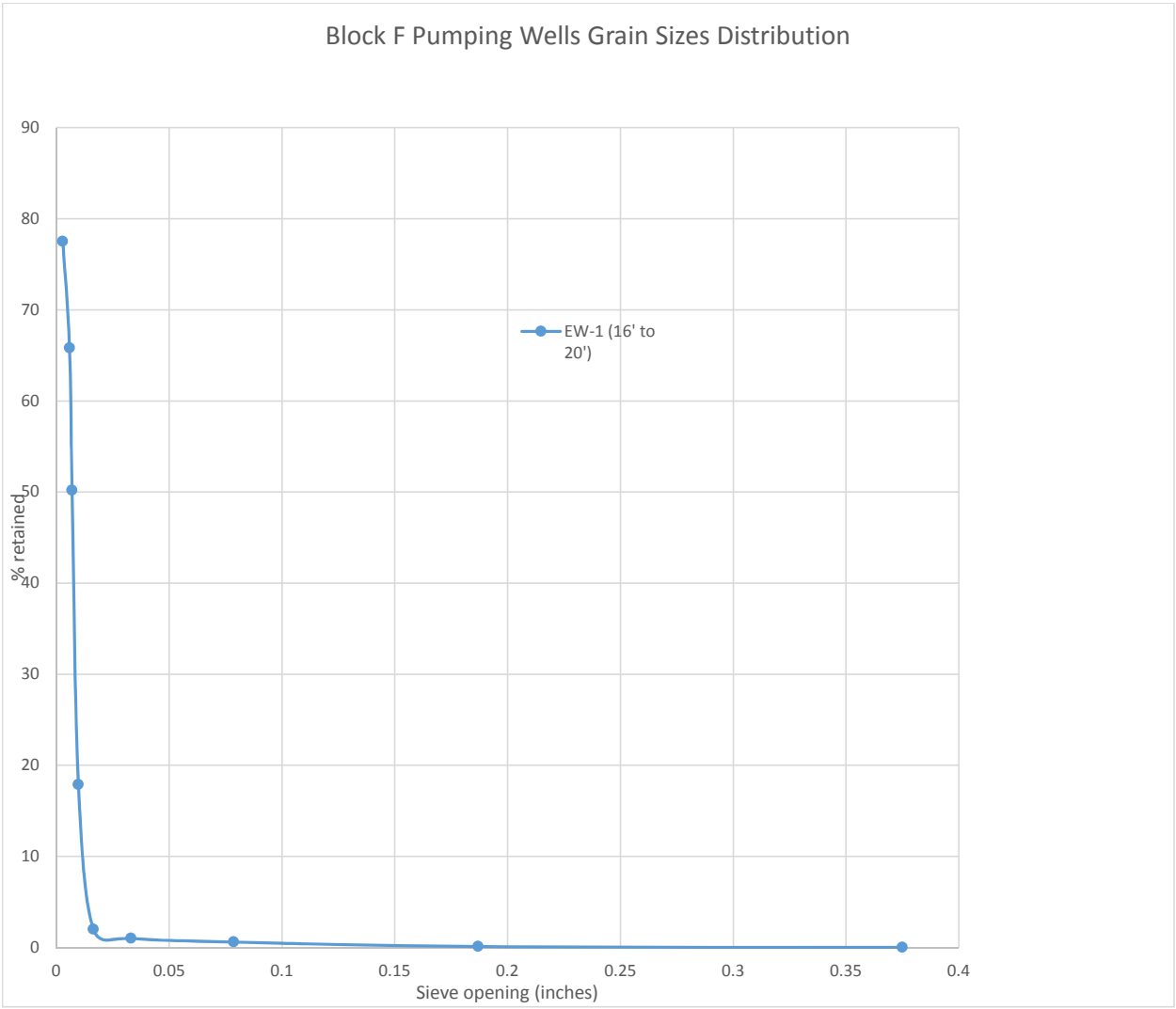
[1]**Principles of Groundwater Engineering By William C. Walton, page 223**

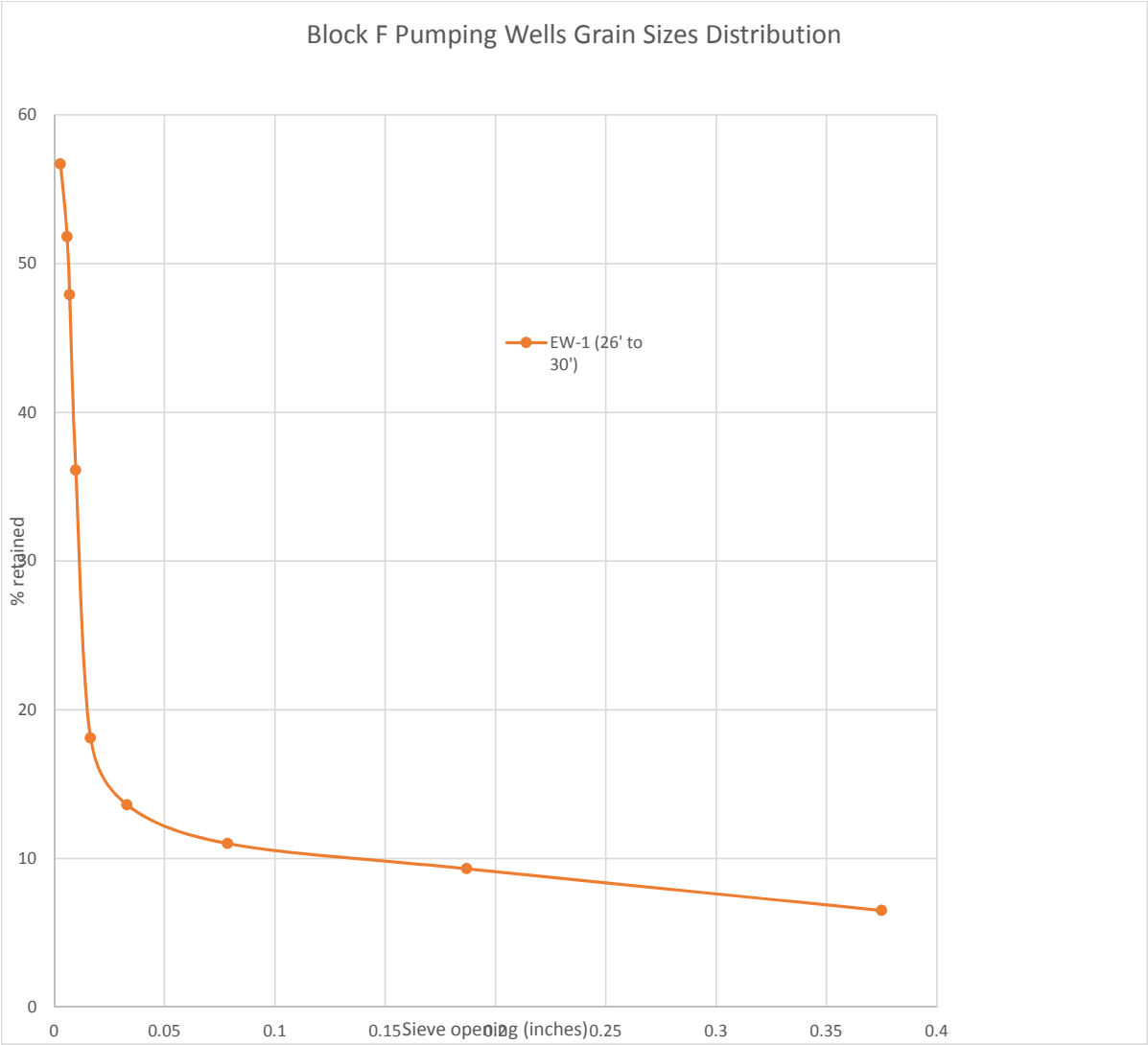
Note: linear interpolation is used to calculate d_{30} through d_{90}

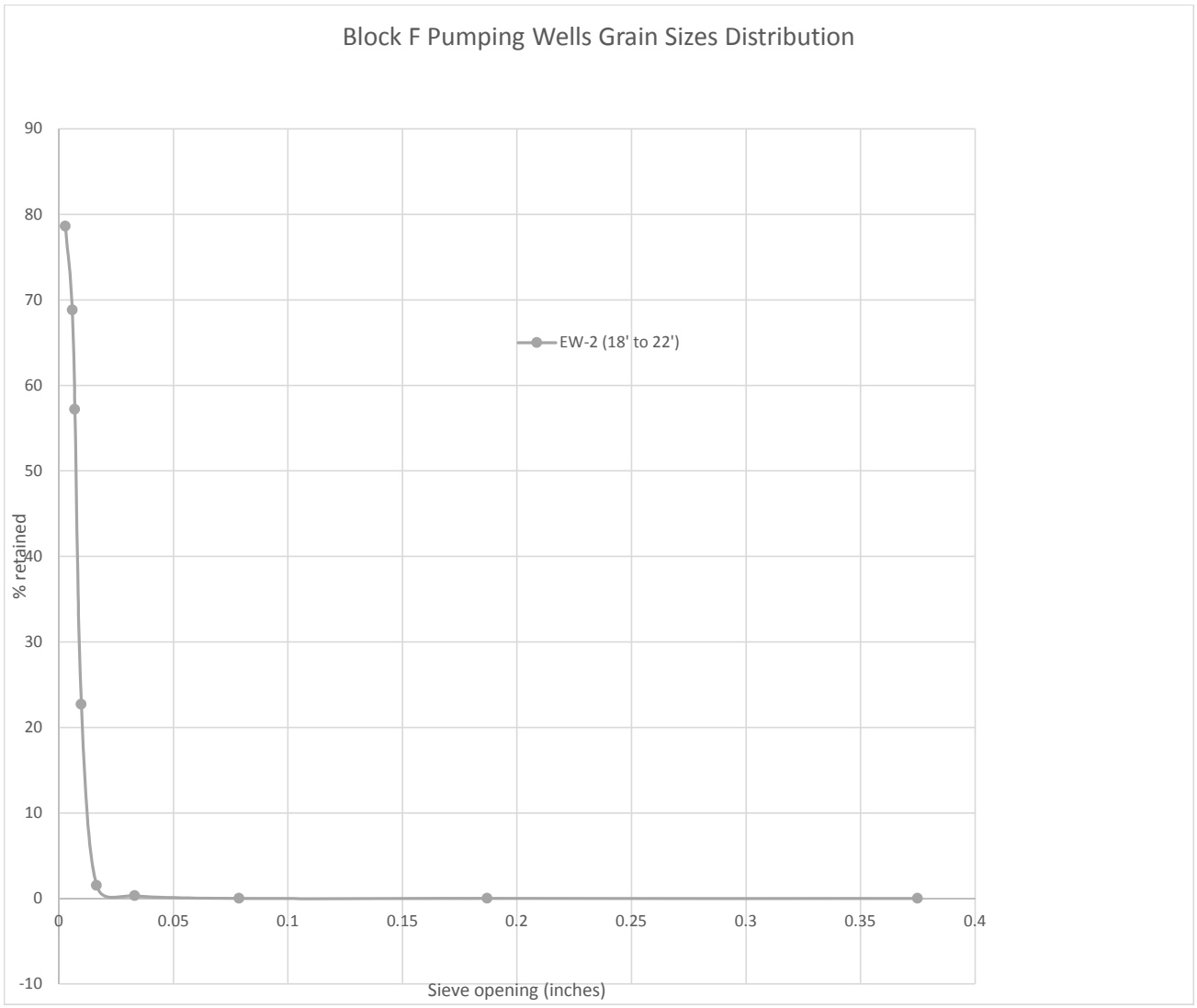
Table 2. Block F Pumping Wells Materials Distrubution

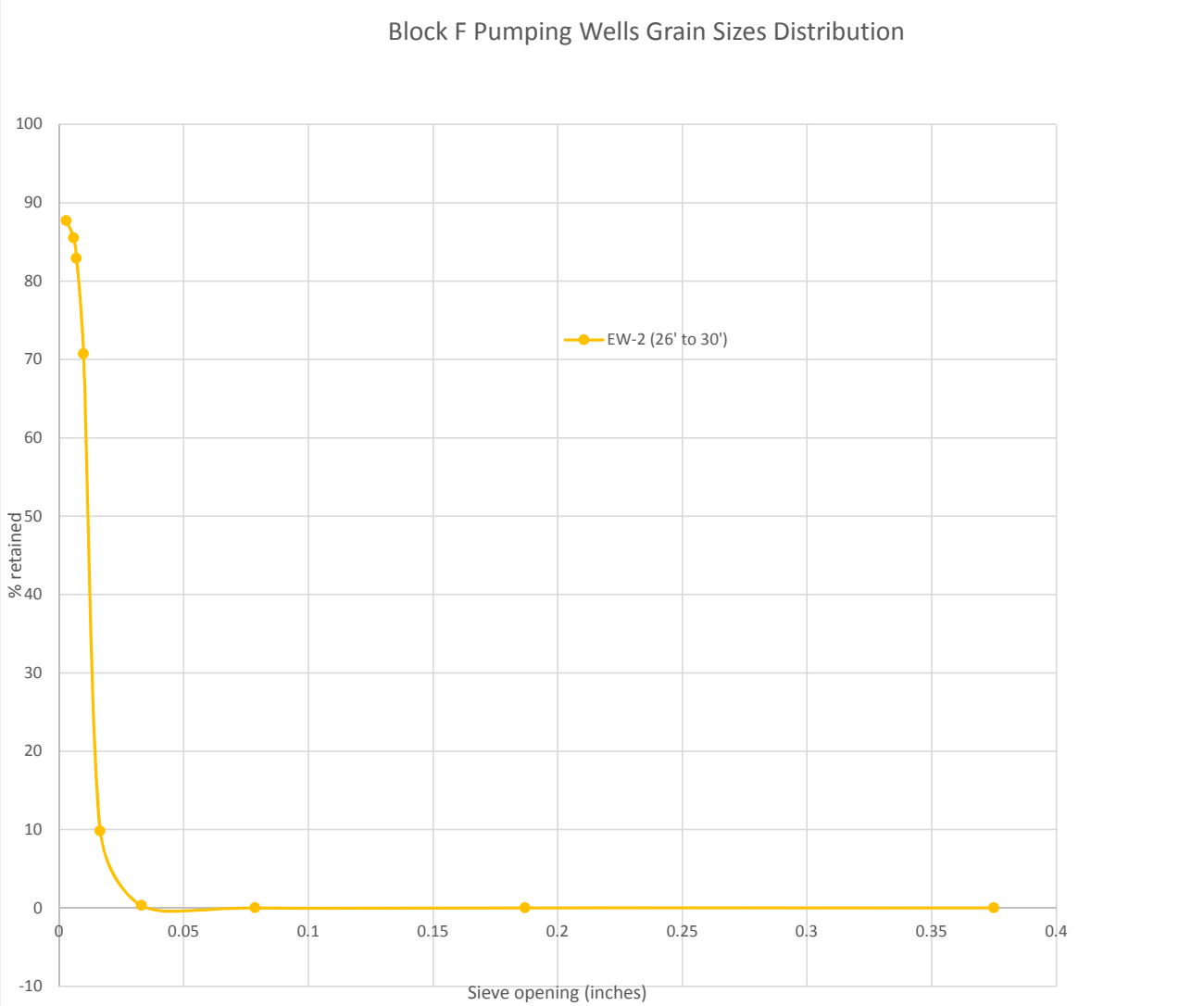
Material	% in sample EW-1 16' to 20'	EW-1 26' to 30'	EW-2 18' to 22'	EW-2 26' to 30'
Gravel	0.1	9.3	0	0
Coarse sand	0.5	1.7	0	0
Medium sand	1.4	7.1	1.5	9.8
Fine sand	75.5	38.6	77.1	77.9
Silt	9	17.9	7.4	6
Clay	13.5	25.4	14	6.3


Block F Pumping Wells Grain Sizes Distribution
100
90
80
70
60
50
40
30
20
10
0
-10
% retained
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Sieve opening (inches)
EW-1 (16' to 20')
EW-1 (26' to 30')
EW-2 (18' to 22')

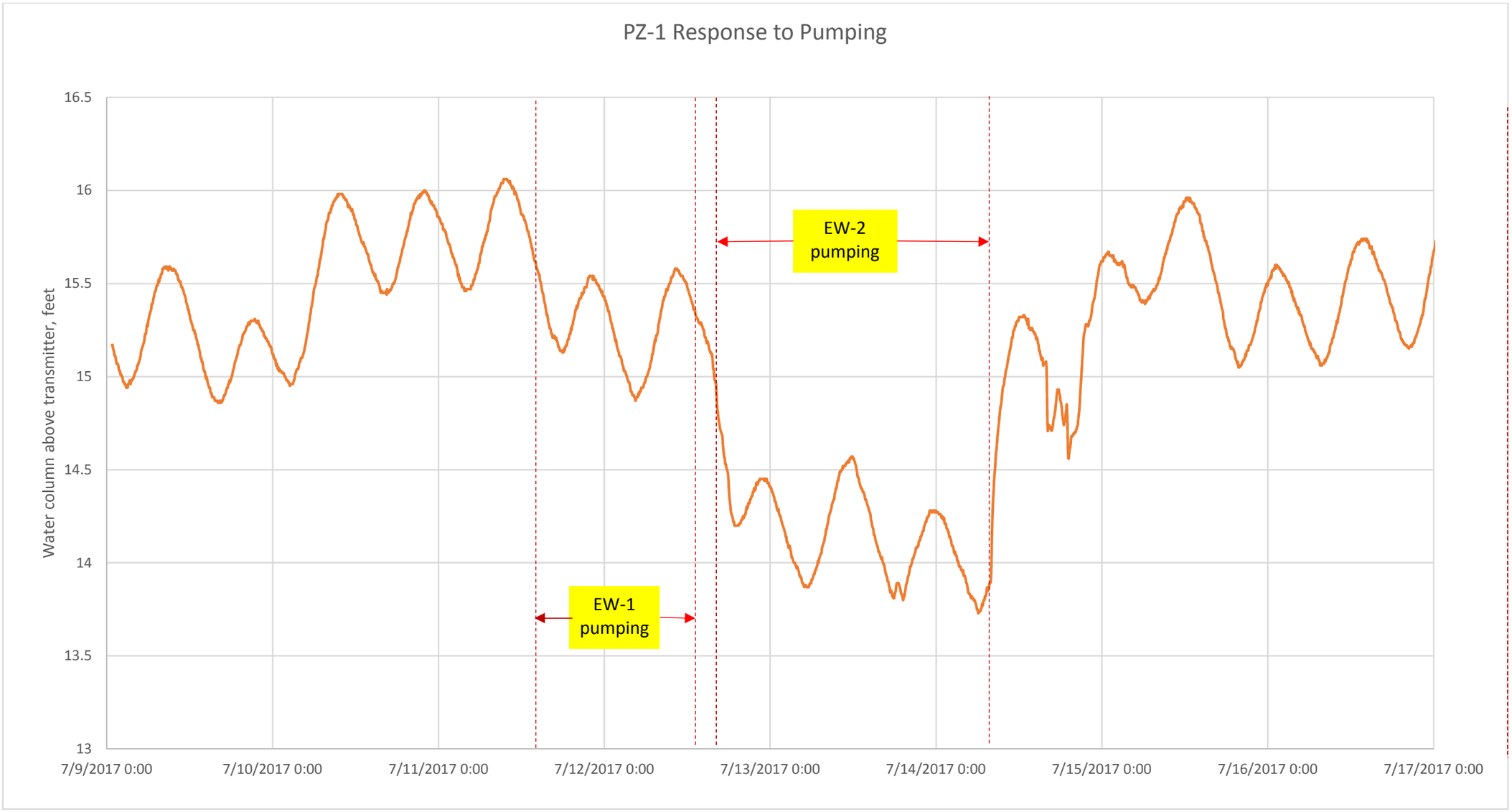

Block F Pumping Wells Grain Sizes Distribution
90
80
70
60
50
40
30
20
10
0
% retained
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Sieve opening (inches)
EW-1 (16' to 20')

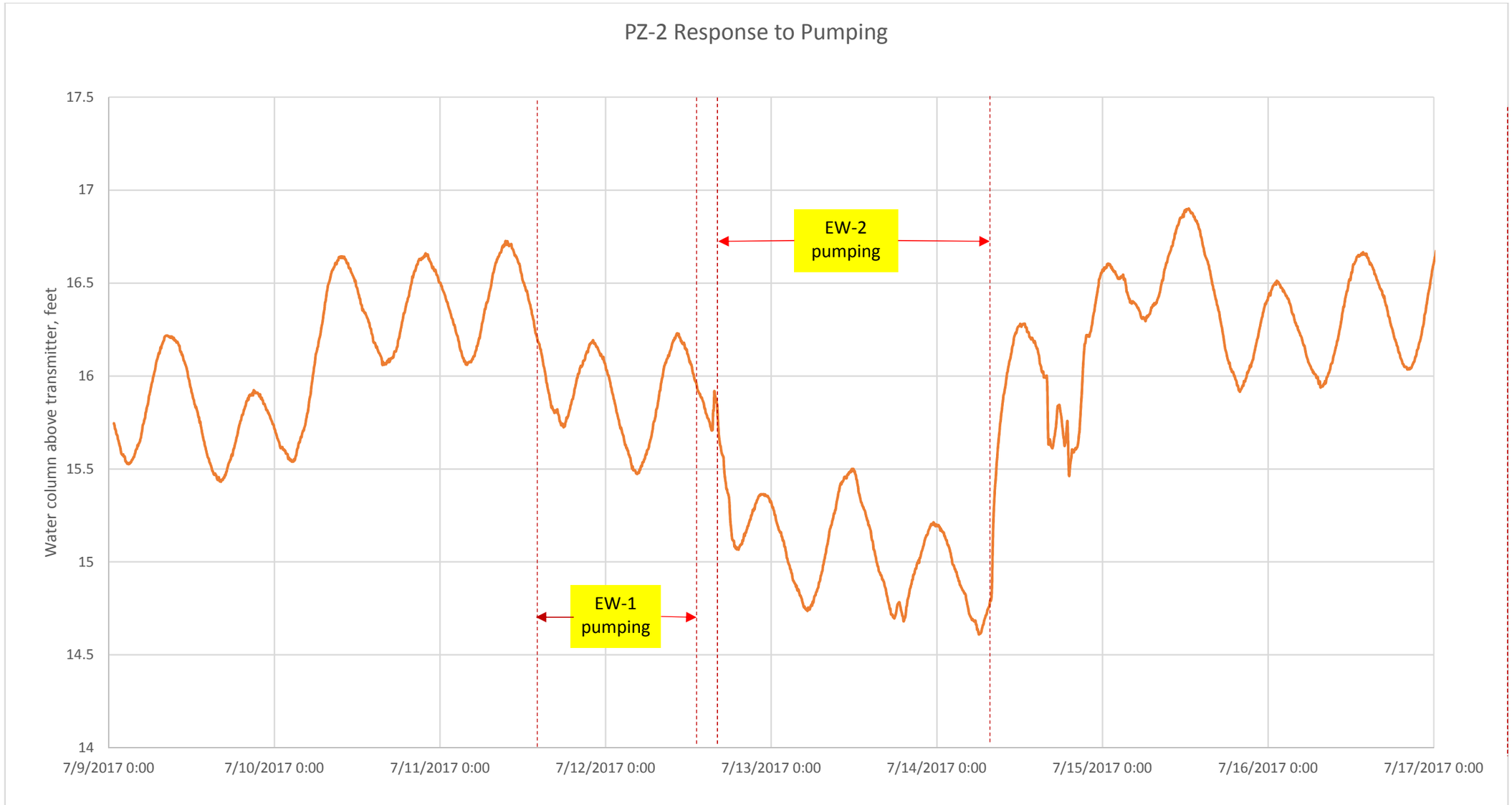

Block F Pumping Wells Grain Sizes Distribution
60
50
40
30
20
10
0
% retained
EW-1 (26' to 30')
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Sieve opening (inches)

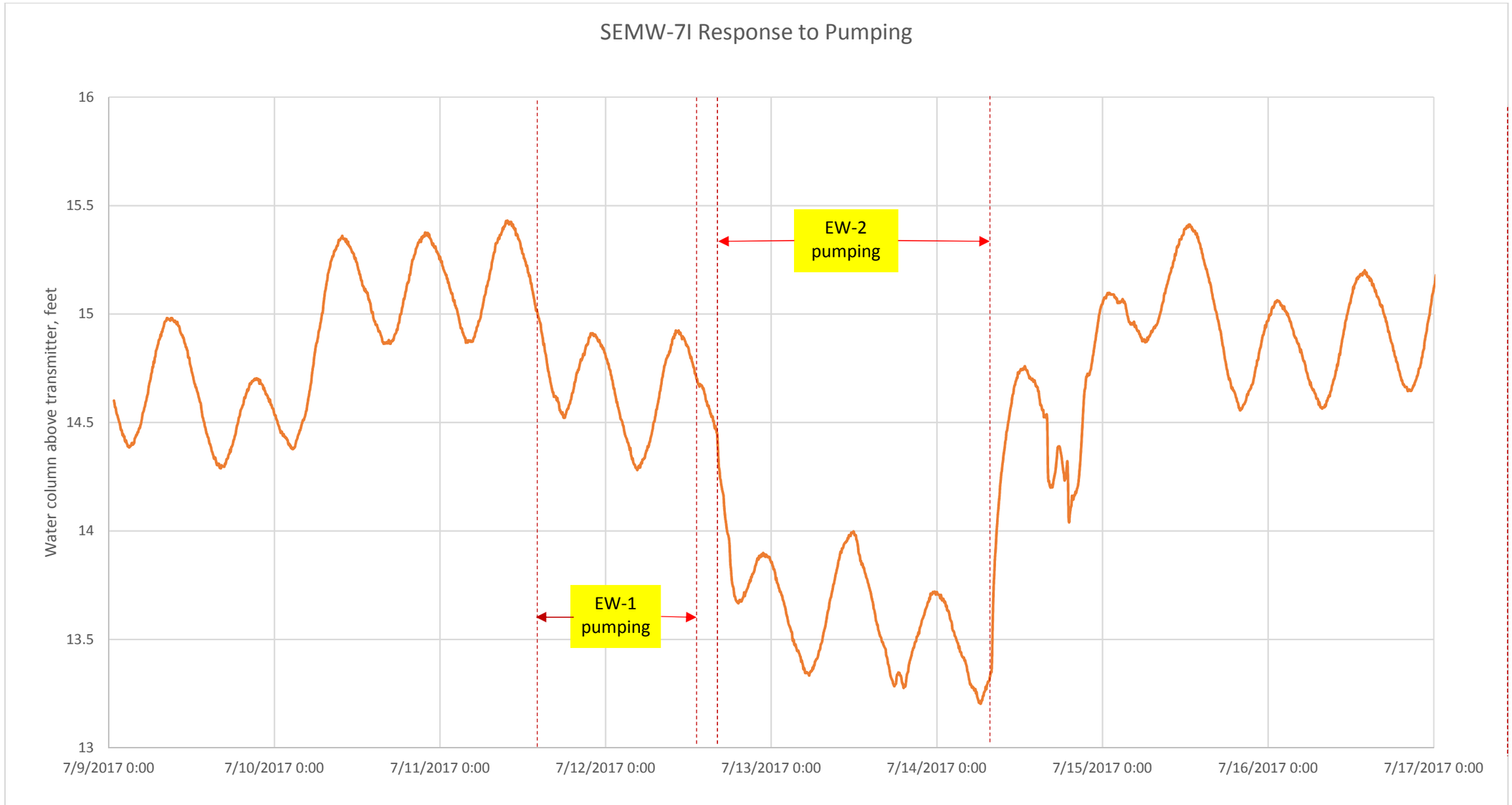

Block F Pumping Wells Grain Sizes Distribution
90
80
70
60
50
40
30
20
10
0
-10
% retained
EW-2 (18' to 22')
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Sieve opening (inches)

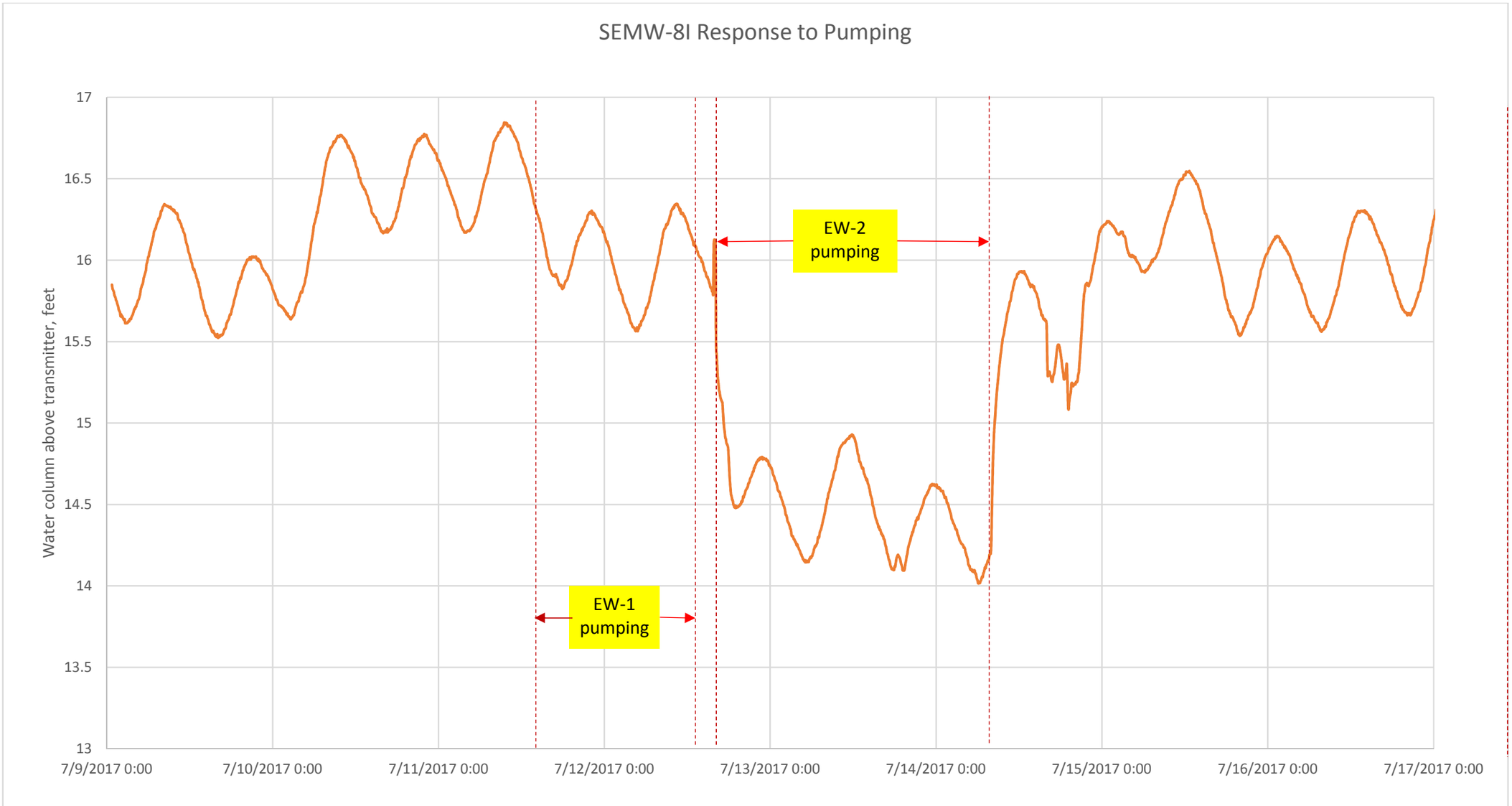

Block F Pumping Wells Grain Sizes Distribution
100
90
80
70
60
50
40
30
20
10
0
-10
% retained
EW-2 (26' to 30')
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Sieve opening (inches)

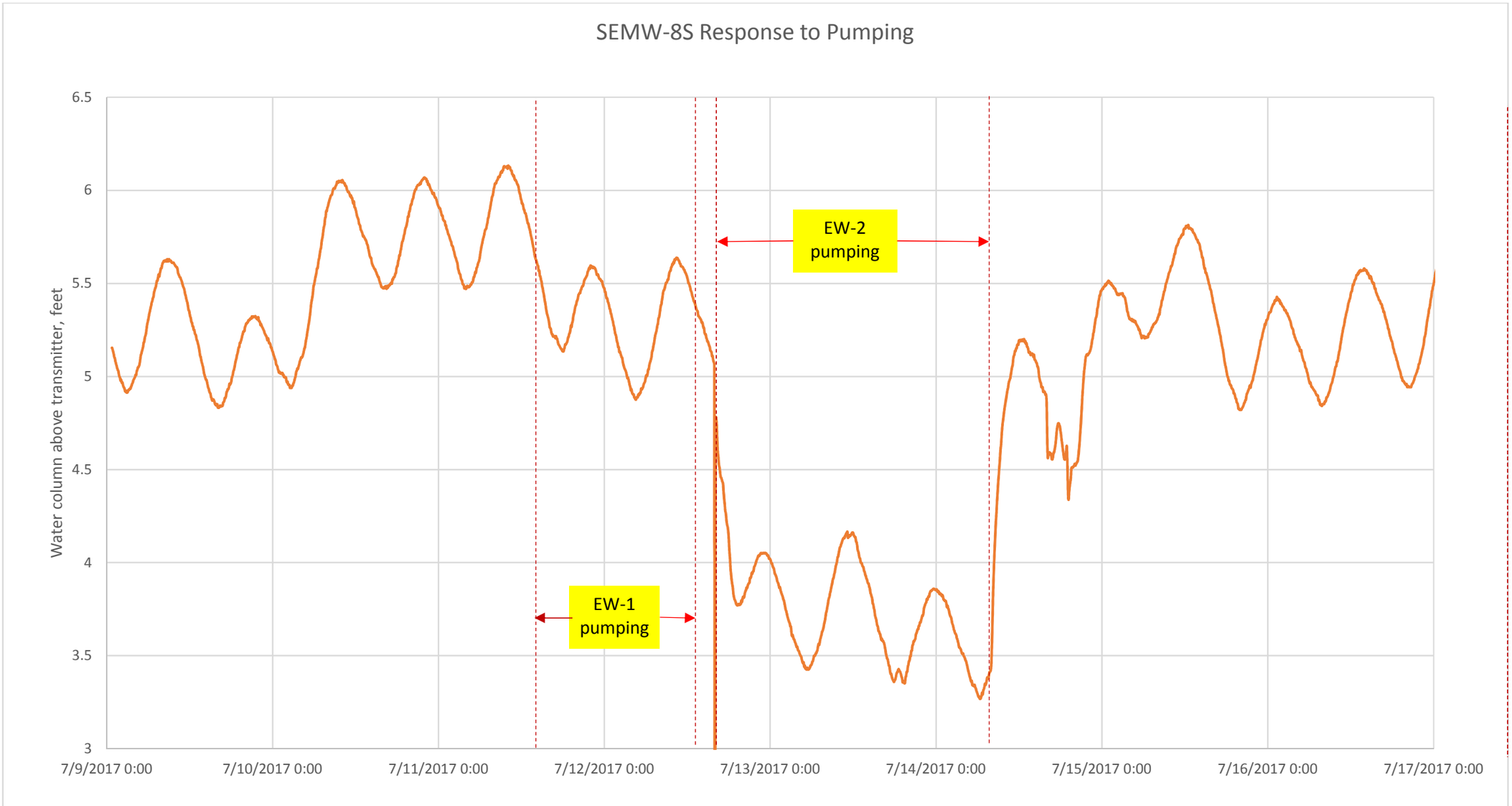
ATTACHMENT C—HYDRAULIC RESPONSE OF BLOCK F WELLS DURING PUMPING TESTS

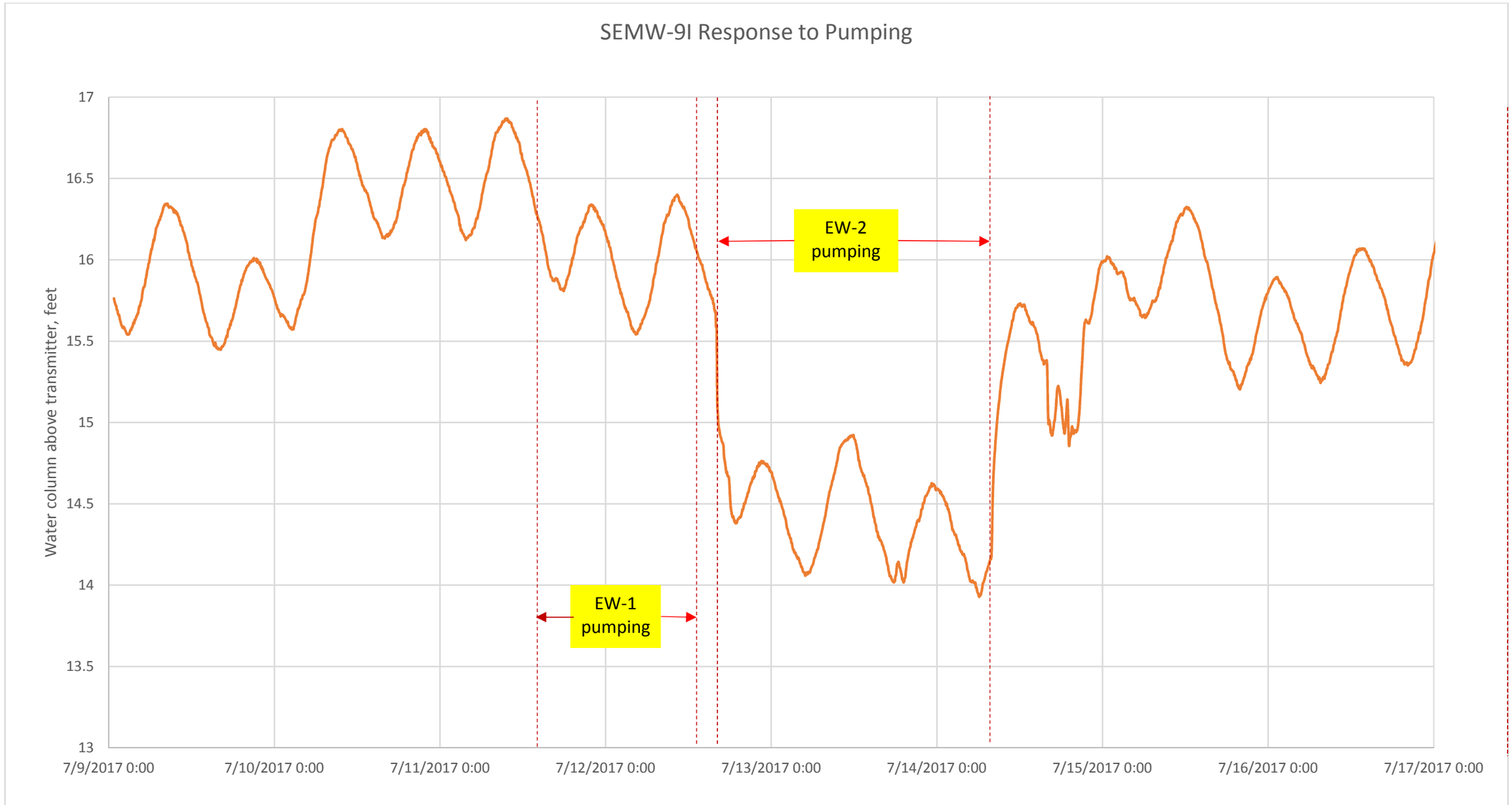

PZ-1 Response to Pumping
Water column above transmitter, feet
16.5
16
15.5
15
14.5
14
13.5
13
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping

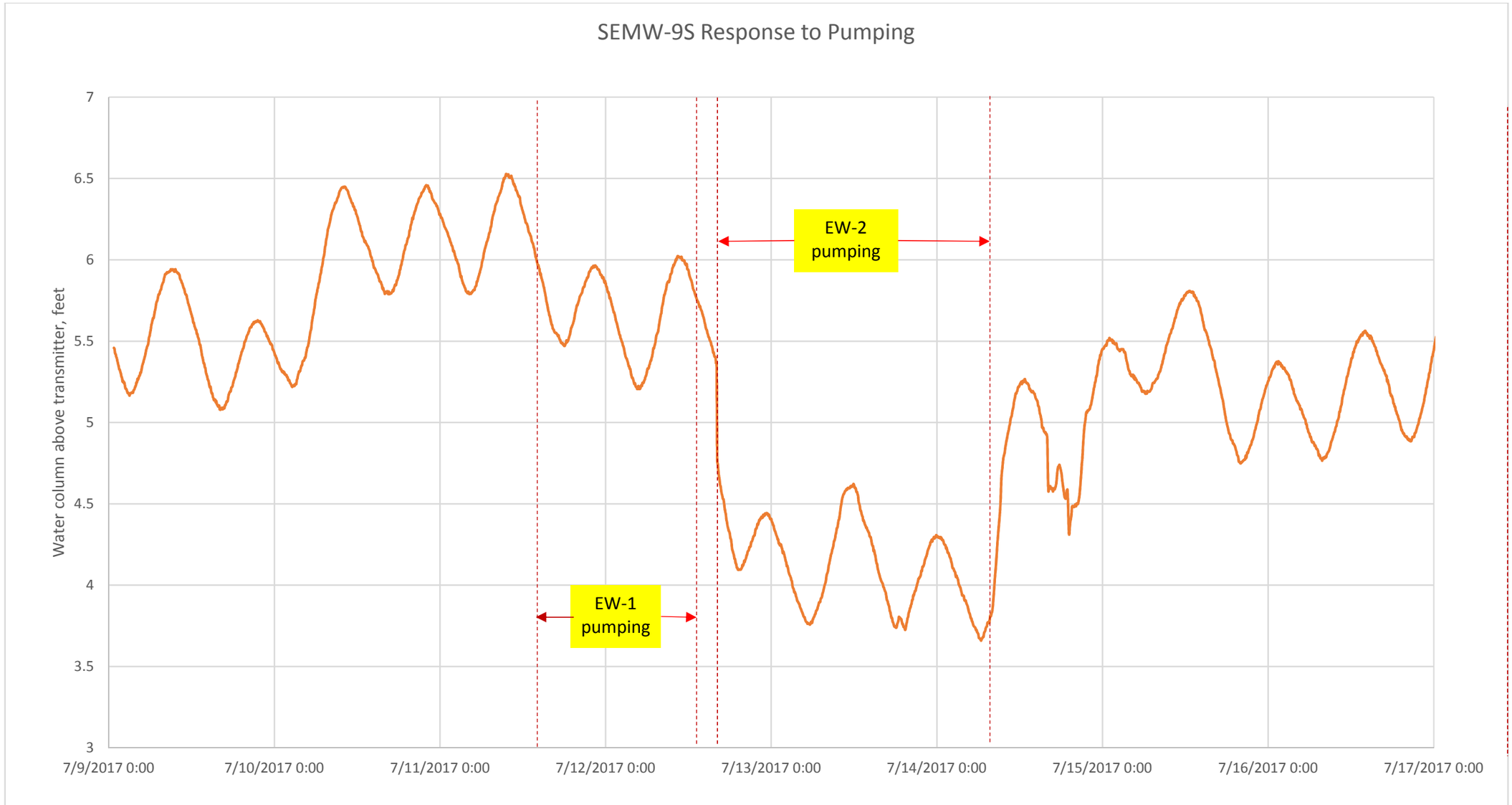

PZ-2 Response to Pumping
Water column above transmitter, feet
17.5
17
16.5
16
15.5
15
14.5
14
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping

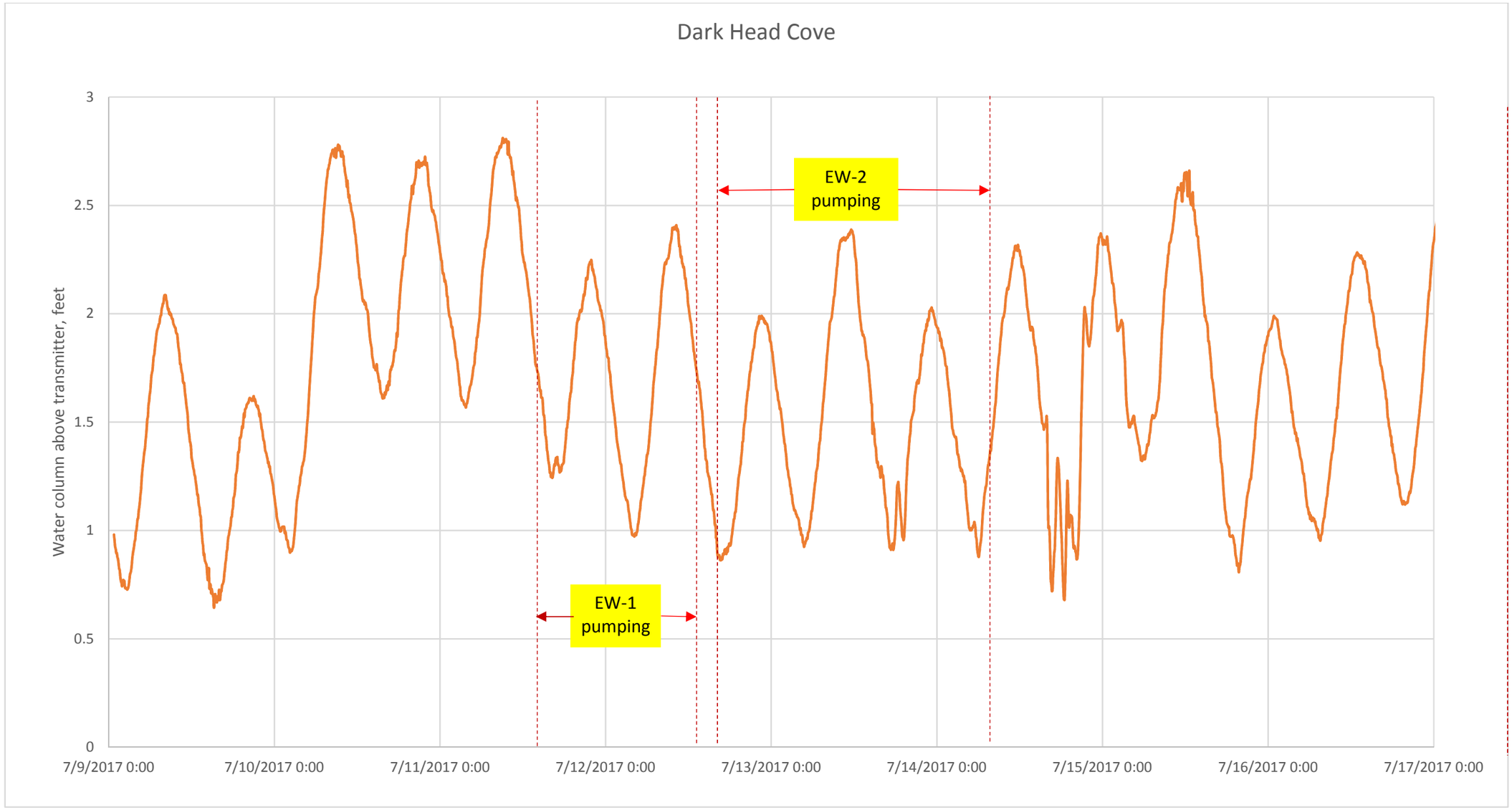

SEMW-7I Response to Pumping
Water column above transmitter, feet
16
15.5
15
14.5
14
13.5
13
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping


SEMW-8I Response to Pumping
Water column above transmitter, feet
17
16.5
16
15.5
15
14.5
14
13.5
13
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping


SEMW-8S Response to Pumping
Water column above transmitter, feet
6.5
6
5.5
5
4.5
4
3.5
3
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping


SEMW-9I Response to Pumping
Water column above transmitter, feet
17
16.5
16
15.5
15
14.5
14
13.5
13
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping


SEMW-9S Response to Pumping
Water column above transmitter, feet
7
6.5
6
5.5
5
4.5
4
3.5
3
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping


Dark Head Cove
Water column above transmitter, feet
3
2.5
2
1.5
1
0.5
0
7/9/2017 0:00
7/10/2017 0:00
7/11/2017 0:00
7/12/2017 0:00
7/13/2017 0:00
7/14/2017 0:00
7/15/2017 0:00
7/16/2017 0:00
7/17/2017 0:00
EW-2 pumping
EW-1 pumping

ATTACHMENT D—LABORATORY ANALYTICAL DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 200-38715-1

Job Description: MRC Block E Downgradient Investigation

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Chris Pike



Approved for release.
John McFadden
Project Manager I
6/12/2017 8:21 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
06/12/2017

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 3

- Report Narrative 3
- Sample Summary 4
- Executive Summary 5
- Method Summary 9
- Method / Analyst Summary 10
- Sample Datasheets 11
- Data Qualifiers 27
- QC Association Summary 28
- Lab Chronicle 29
- Certification Summary 30

Inorganic Sample Data 31

- Geotechnical Data 31
  - Geo Cover Page 32
  - Geo Sample Data 33
  - Geo Prep Data 37

Shipping and Receiving Documents 38

- Client Chain of Custody 39
- Sample Receipt Checklist 41

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E Downgradient Investigation

Report Number: 200-38715-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/24/2017 10:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1º C.

GRAIN SIZE

Samples MRC-EW-1-16-20 (200-38715-1), MRC-EW-1-26-30 (200-38715-2), MRC-EW-2-18-22 (200-38715-3) and MRC-EW-2-26-30 (200-38715-4) were analyzed for grain size in accordance with ASTM Method D422 grain size. The samples were analyzed on 06/06/2017.

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

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-38715-1	MRC-EW-1-16-20	Solid	05/22/2017 1355	05/24/2017 1040
200-38715-2	MRC-EW-1-26-30	Solid	05/22/2017 1405	05/24/2017 1040
200-38715-3	MRC-EW-2-18-22	Solid	05/22/2017 1500	05/24/2017 1040
200-38715-4	MRC-EW-2-26-30	Solid	05/22/2017 1510	05/24/2017 1040

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
200-38715-1	**MRC-EW-1-16-20**					
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		0.1			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		77.4			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		0.5			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		1.4			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		75.5			%	D422
Sieve Size 0.375 inch - Percent Finer		100.0			% Passing	D422
Silt		9.0			%	D422
Sieve Size #4 - Percent Finer		99.9			% Passing	D422
Clay		13.5			%	D422
Sieve Size #10 - Percent Finer		99.4			% Passing	D422
Sieve Size #20 - Percent Finer		99.0			% Passing	D422
Sieve Size #40 - Percent Finer		98.0			% Passing	D422
Sieve Size #60 - Percent Finer		82.1			% Passing	D422
Sieve Size #80 - Percent Finer		49.8			% Passing	D422
Sieve Size #100 - Percent Finer		34.2			% Passing	D422
Sieve Size #200 - Percent Finer		22.5			% Passing	D422
Hydrometer Reading 1 - Percent Finer		19.4			% Passing	D422
Hydrometer Reading 2 - Percent Finer		17.9			% Passing	D422
Hydrometer Reading 3 - Percent Finer		16.9			% Passing	D422
Hydrometer Reading 4 - Percent Finer		14.9			% Passing	D422
Hydrometer Reading 5 - Percent Finer		13.5			% Passing	D422
Hydrometer Reading 6 - Percent Finer		9.5			% Passing	D422
Hydrometer Reading 7 - Percent Finer		2.7			% Passing	D422

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
200-38715-2	**MRC-EW-1-26-30**					
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		9.3			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		47.4			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		1.7			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		7.1			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		38.6			%	D422
Sieve Size 0.375 inch - Percent Finer		93.5			% Passing	D422
Silt		17.9			%	D422
Sieve Size #4 - Percent Finer		90.7			% Passing	D422
Clay		25.4			%	D422
Sieve Size #10 - Percent Finer		89.0			% Passing	D422
Sieve Size #20 - Percent Finer		86.4			% Passing	D422
Sieve Size #40 - Percent Finer		81.9			% Passing	D422
Sieve Size #60 - Percent Finer		63.9			% Passing	D422
Sieve Size #80 - Percent Finer		52.1			% Passing	D422
Sieve Size #100 - Percent Finer		48.2			% Passing	D422
Sieve Size #200 - Percent Finer		43.3			% Passing	D422
Hydrometer Reading 1 - Percent Finer		37.0			% Passing	D422
Hydrometer Reading 2 - Percent Finer		34.3			% Passing	D422
Hydrometer Reading 3 - Percent Finer		30.9			% Passing	D422
Hydrometer Reading 4 - Percent Finer		28.1			% Passing	D422
Hydrometer Reading 5 - Percent Finer		25.4			% Passing	D422
Hydrometer Reading 6 - Percent Finer		19.3			% Passing	D422
Hydrometer Reading 7 - Percent Finer		10.5			% Passing	D422

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
200-38715-3	**MRC-EW-2-18-22**					
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		0.0			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		78.6			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		0.0			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		1.5			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		77.1			%	D422
Sieve Size 0.375 inch - Percent Finer		100.0			% Passing	D422
Silt		7.4			%	D422
Sieve Size #4 - Percent Finer		100.0			% Passing	D422
Clay		14.0			%	D422
Sieve Size #10 - Percent Finer		100.0			% Passing	D422
Sieve Size #20 - Percent Finer		99.7			% Passing	D422
Sieve Size #40 - Percent Finer		98.5			% Passing	D422
Sieve Size #60 - Percent Finer		77.3			% Passing	D422
Sieve Size #80 - Percent Finer		42.8			% Passing	D422
Sieve Size #100 - Percent Finer		31.2			% Passing	D422
Sieve Size #200 - Percent Finer		21.4			% Passing	D422
Hydrometer Reading 1 - Percent Finer		20.8			% Passing	D422
Hydrometer Reading 2 - Percent Finer		18.5			% Passing	D422
Hydrometer Reading 3 - Percent Finer		17.4			% Passing	D422
Hydrometer Reading 4 - Percent Finer		15.7			% Passing	D422
Hydrometer Reading 5 - Percent Finer		14.0			% Passing	D422
Hydrometer Reading 6 - Percent Finer		10.5			% Passing	D422
Hydrometer Reading 7 - Percent Finer		4.3			% Passing	D422

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
200-38715-4	**MRC-EW-2-26-30**					
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		0.0			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		87.7			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		0.0			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		9.8			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		77.9			%	D422
Sieve Size 0.375 inch - Percent Finer		100.0			% Passing	D422
Silt		6.0			%	D422
Sieve Size #4 - Percent Finer		100.0			% Passing	D422
Clay		6.3			%	D422
Sieve Size #10 - Percent Finer		100.0			% Passing	D422
Sieve Size #20 - Percent Finer		99.7			% Passing	D422
Sieve Size #40 - Percent Finer		90.2			% Passing	D422
Sieve Size #60 - Percent Finer		29.3			% Passing	D422
Sieve Size #80 - Percent Finer		17.1			% Passing	D422
Sieve Size #100 - Percent Finer		14.5			% Passing	D422
Sieve Size #200 - Percent Finer		12.3			% Passing	D422
Hydrometer Reading 1 - Percent Finer		9.3			% Passing	D422
Hydrometer Reading 2 - Percent Finer		9.3			% Passing	D422
Hydrometer Reading 3 - Percent Finer		8.3			% Passing	D422
Hydrometer Reading 4 - Percent Finer		7.8			% Passing	D422
Hydrometer Reading 5 - Percent Finer		6.3			% Passing	D422
Hydrometer Reading 6 - Percent Finer		5.3			% Passing	D422
Hydrometer Reading 7 - Percent Finer		1.3			% Passing	D422

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Grain Size	TAL BUR	ASTM D422	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

ASTM = ASTM International

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Method	Analyst	Analyst ID
ASTM D422	Pham, Vu T	VTP

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-1-16-20**

Lab Sample ID: 200-38715-1 Date Sampled: 05/22/2017 1355
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-1.txt
Dilution:	1.0			Initial Weight/Volume:	202.99 g
Analysis Date:	06/06/2017 1926			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		99.9			
Sieve Size #10 - Percent Finer		99.4			
Sieve Size #20 - Percent Finer		99.0			
Sieve Size #40 - Percent Finer		98.0			
Sieve Size #60 - Percent Finer		82.1			
Sieve Size #80 - Percent Finer		49.8			
Sieve Size #100 - Percent Finer		34.2			
Sieve Size #200 - Percent Finer		22.5			
Hydrometer Reading 1 - Percent Finer		19.4			
Hydrometer Reading 2 - Percent Finer		17.9			
Hydrometer Reading 3 - Percent Finer		16.9			
Hydrometer Reading 4 - Percent Finer		14.9			
Hydrometer Reading 5 - Percent Finer		13.5			
Hydrometer Reading 6 - Percent Finer		9.5			
Hydrometer Reading 7 - Percent Finer		2.7			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-1-16-20**

Lab Sample ID: 200-38715-1 Date Sampled: 05/22/2017 1355
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-1.txt
Dilution:	1.0			Initial Weight/Volume:	202.99 g
Analysis Date:	06/06/2017 1926			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.1			
Sand		77.4			
Coarse Sand		0.5			
Medium Sand		1.4			
Fine Sand		75.5			
Silt		9.0			
Clay		13.5			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-1-26-30**

Lab Sample ID: 200-38715-2 Date Sampled: 05/22/2017 1405
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-2.txt
Dilution:	1.0			Initial Weight/Volume:	144.37 g
Analysis Date:	06/06/2017 1928			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		93.5			
Sieve Size #4 - Percent Finer		90.7			
Sieve Size #10 - Percent Finer		89.0			
Sieve Size #20 - Percent Finer		86.4			
Sieve Size #40 - Percent Finer		81.9			
Sieve Size #60 - Percent Finer		63.9			
Sieve Size #80 - Percent Finer		52.1			
Sieve Size #100 - Percent Finer		48.2			
Sieve Size #200 - Percent Finer		43.3			
Hydrometer Reading 1 - Percent Finer		37.0			
Hydrometer Reading 2 - Percent Finer		34.3			
Hydrometer Reading 3 - Percent Finer		30.9			
Hydrometer Reading 4 - Percent Finer		28.1			
Hydrometer Reading 5 - Percent Finer		25.4			
Hydrometer Reading 6 - Percent Finer		19.3			
Hydrometer Reading 7 - Percent Finer		10.5			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-1-26-30**

Lab Sample ID: 200-38715-2 Date Sampled: 05/22/2017 1405
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-2.txt
Dilution:	1.0			Initial Weight/Volume:	144.37 g
Analysis Date:	06/06/2017 1928			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		9.3			
Sand		47.4			
Coarse Sand		1.7			
Medium Sand		7.1			
Fine Sand		38.6			
Silt		17.9			
Clay		25.4			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-2-18-22**

Lab Sample ID: 200-38715-3 Date Sampled: 05/22/2017 1500
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-3.txt
Dilution:	1.0			Initial Weight/Volume:	168.73 g
Analysis Date:	06/06/2017 1930			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.7			
Sieve Size #40 - Percent Finer		98.5			
Sieve Size #60 - Percent Finer		77.3			
Sieve Size #80 - Percent Finer		42.8			
Sieve Size #100 - Percent Finer		31.2			
Sieve Size #200 - Percent Finer		21.4			
Hydrometer Reading 1 - Percent Finer		20.8			
Hydrometer Reading 2 - Percent Finer		18.5			
Hydrometer Reading 3 - Percent Finer		17.4			
Hydrometer Reading 4 - Percent Finer		15.7			
Hydrometer Reading 5 - Percent Finer		14.0			
Hydrometer Reading 6 - Percent Finer		10.5			
Hydrometer Reading 7 - Percent Finer		4.3			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-2-18-22**

Lab Sample ID: 200-38715-3 Date Sampled: 05/22/2017 1500
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-3.txt
Dilution:	1.0			Initial Weight/Volume:	168.73 g
Analysis Date:	06/06/2017 1930			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		78.6			
Coarse Sand		0.0			
Medium Sand		1.5			
Fine Sand		77.1			
Silt		7.4			
Clay		14.0			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-2-26-30**

Lab Sample ID: 200-38715-4 Date Sampled: 05/22/2017 1510
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-4.txt
Dilution:	1.0			Initial Weight/Volume:	192.63 g
Analysis Date:	06/06/2017 1932			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.7			
Sieve Size #40 - Percent Finer		90.2			
Sieve Size #60 - Percent Finer		29.3			
Sieve Size #80 - Percent Finer		17.1			
Sieve Size #100 - Percent Finer		14.5			
Sieve Size #200 - Percent Finer		12.3			
Hydrometer Reading 1 - Percent Finer		9.3			
Hydrometer Reading 2 - Percent Finer		9.3			
Hydrometer Reading 3 - Percent Finer		8.3			
Hydrometer Reading 4 - Percent Finer		7.8			
Hydrometer Reading 5 - Percent Finer		6.3			
Hydrometer Reading 6 - Percent Finer		5.3			
Hydrometer Reading 7 - Percent Finer		1.3			

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Client Sample ID: **MRC-EW-2-26-30**

Lab Sample ID: 200-38715-4 Date Sampled: 05/22/2017 1510
Client Matrix: Solid Date Received: 05/24/2017 1040

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-117473	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-38715-A-4.txt
Dilution:	1.0			Initial Weight/Volume:	192.63 g
Analysis Date:	06/06/2017 1932			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		87.7			
Coarse Sand		0.0			
Medium Sand		9.8			
Fine Sand		77.9			
Silt		6.0			
Clay		6.3			

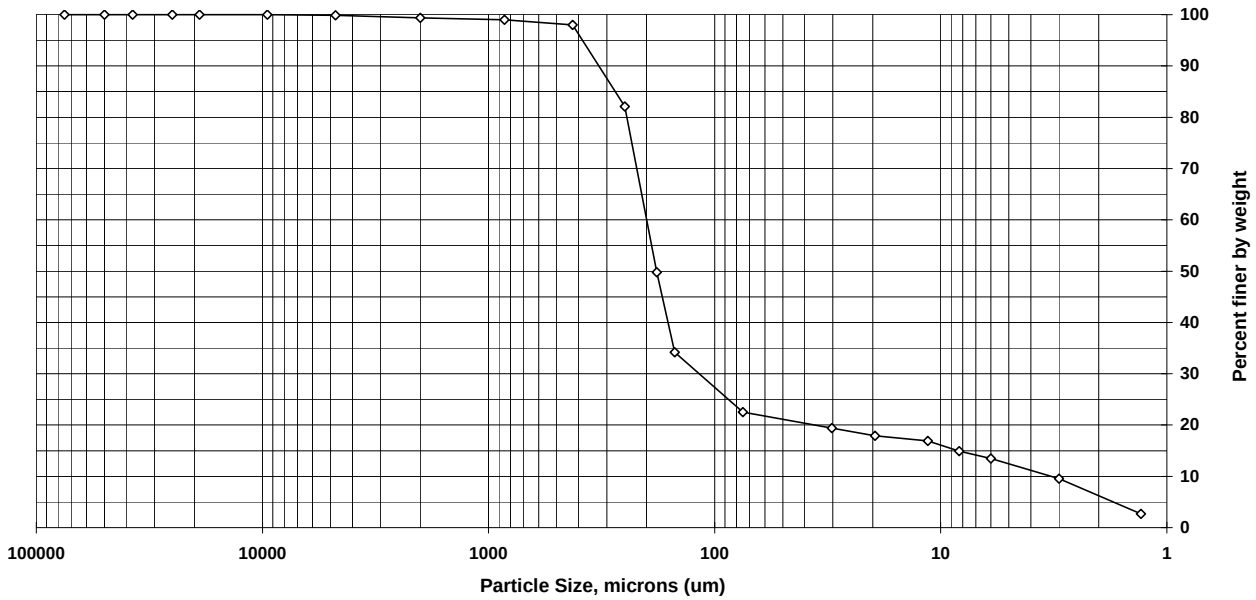
Particle Size of Soils by ASTM D422

				Date Received:	5/24/2017
Sample ID:	MRC-EW-1-16-20	**Percent Solids:**	80.5%	**Start Date:**	6/6/2017
Lab ID:	200-38715-A-1	**Specific Gravity:**	2.650	**End Date:**	6/10/2017

Shape (> #10): subangular

Non-soil material: n/a

Hardness (> #10): brittle



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.9	0.1
#10	2000	99.4	0.5
#20	850	99.0	0.4
#40	425	98.0	1.0
#60	250	82.1	15.9
#80	180	49.8	32.3
#100	150	34.2	15.6
#200	75	22.5	11.7
Hyd1	30.3	19.4	3.1
Hyd2	19.5	17.9	1.5
Hyd3	11.4	16.9	1.0
Hyd4	8.3	14.9	2.0
Hyd5	6	13.5	1.4
Hyd6	3	9.5	4.0
Hyd7	1.3	2.7	6.8

Soil Classification	Percent of sample
Gravel	0.1
Sand	77.4
Coarse Sand	0.5
Medium Sand	1.4
Fine Sand	75.5
Silt	9.0
Clay	13.5

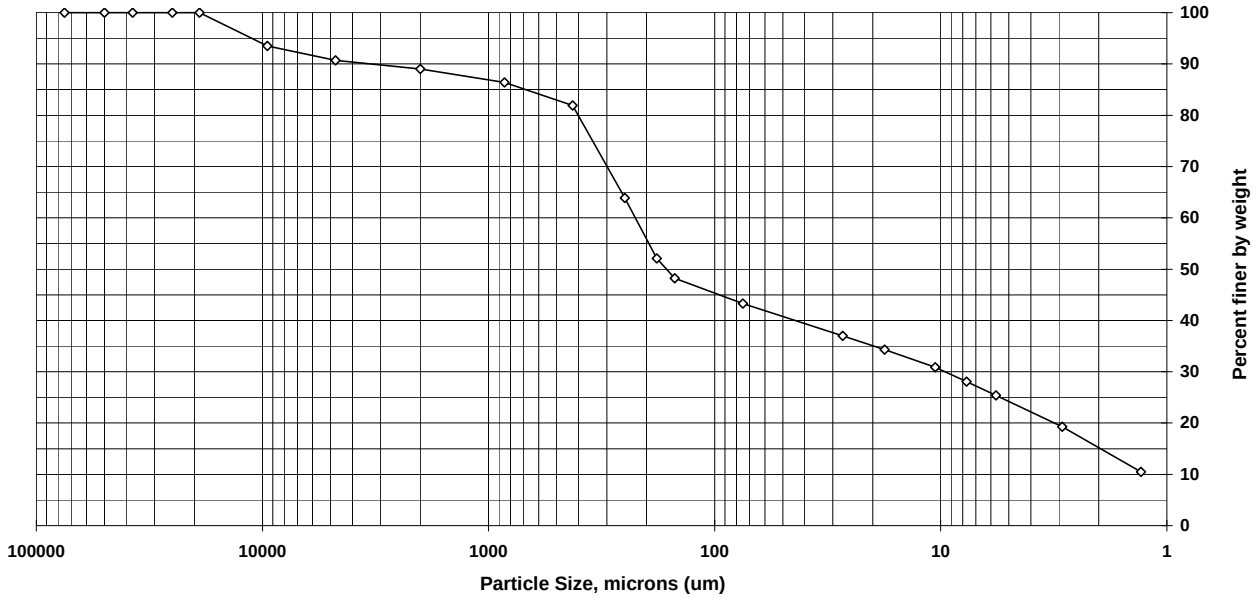
Particle Size of Soils by ASTM D422

				Date Received:	5/24/2017
Sample ID:	MRC-EW-1-26-30	**Percent Solids:**	81.4%	**Start Date:**	6/6/2017
Lab ID:	200-38715-A-2	**Specific Gravity:**	2.650	**End Date:**	6/10/2017

Shape (> #10): subangular

Non-soil material: n/a

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	93.5	6.5
#4	4750	90.7	2.8
#10	2000	89.0	1.7
#20	850	86.4	2.6
#40	425	81.9	4.5
#60	250	63.9	18.0
#80	180	52.1	11.8
#100	150	48.2	3.9
#200	75	43.3	4.9
Hyd1	27.1	37.0	6.3
Hyd2	17.7	34.3	2.7
Hyd3	10.6	30.9	3.4
Hyd4	7.7	28.1	2.8
Hyd5	5.7	25.4	2.7
Hyd6	2.9	19.3	6.1
Hyd7	1.3	10.5	8.8

Soil Classification	Percent of sample
Gravel	9.3
Sand	47.4
Coarse Sand	1.7
Medium Sand	7.1
Fine Sand	38.6
Silt	17.9
Clay	25.4

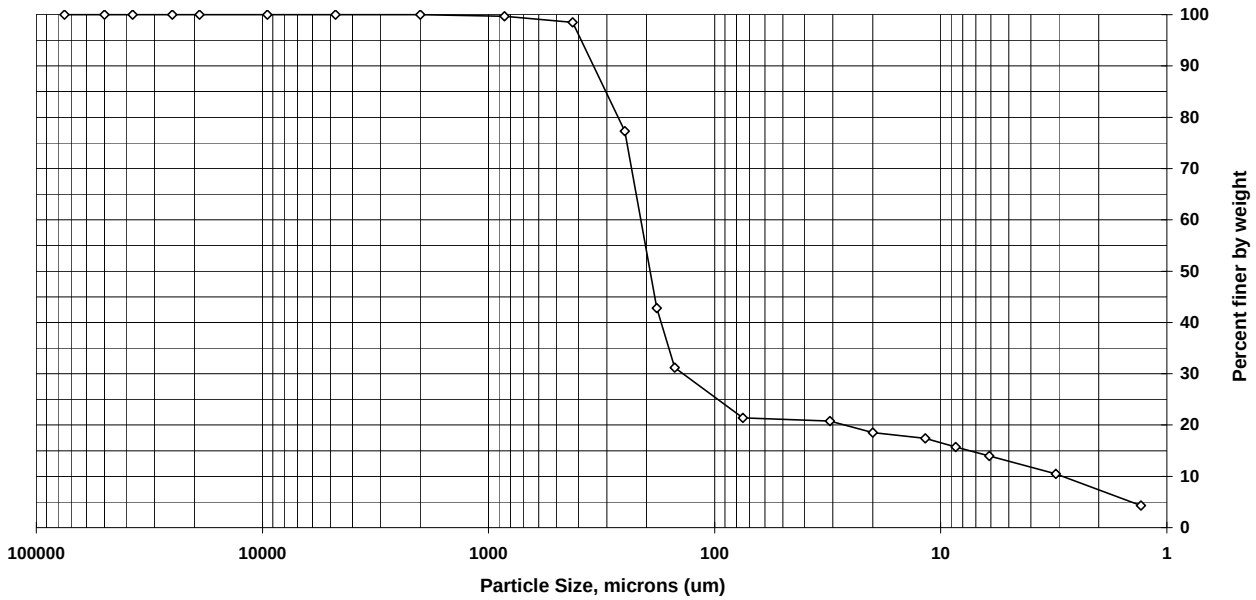
Particle Size of Soils by ASTM D422

				Date Received:	5/24/2017
Sample ID:	MRC-EW-2-18-22	**Percent Solids:**	82.7%	**Start Date:**	6/6/2017
Lab ID:	200-38715-A-3	**Specific Gravity:**	2.650	**End Date:**	6/10/2017

Shape (> #10): subangular

Non-soil material: plant

Hardness (> #10): brittle



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.7	0.3
#40	425	98.5	1.2
#60	250	77.3	21.2
#80	180	42.8	34.5
#100	150	31.2	11.6
#200	75	21.4	9.8
Hyd1	30.9	20.8	0.6
Hyd2	20	18.5	2.3
Hyd3	11.7	17.4	1.1
Hyd4	8.6	15.7	1.7
Hyd5	6.1	14.0	1.7
Hyd6	3.1	10.5	3.5
Hyd7	1.3	4.3	6.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	78.6
Coarse Sand	0.0
Medium Sand	1.5
Fine Sand	77.1
Silt	7.4
Clay	14.0

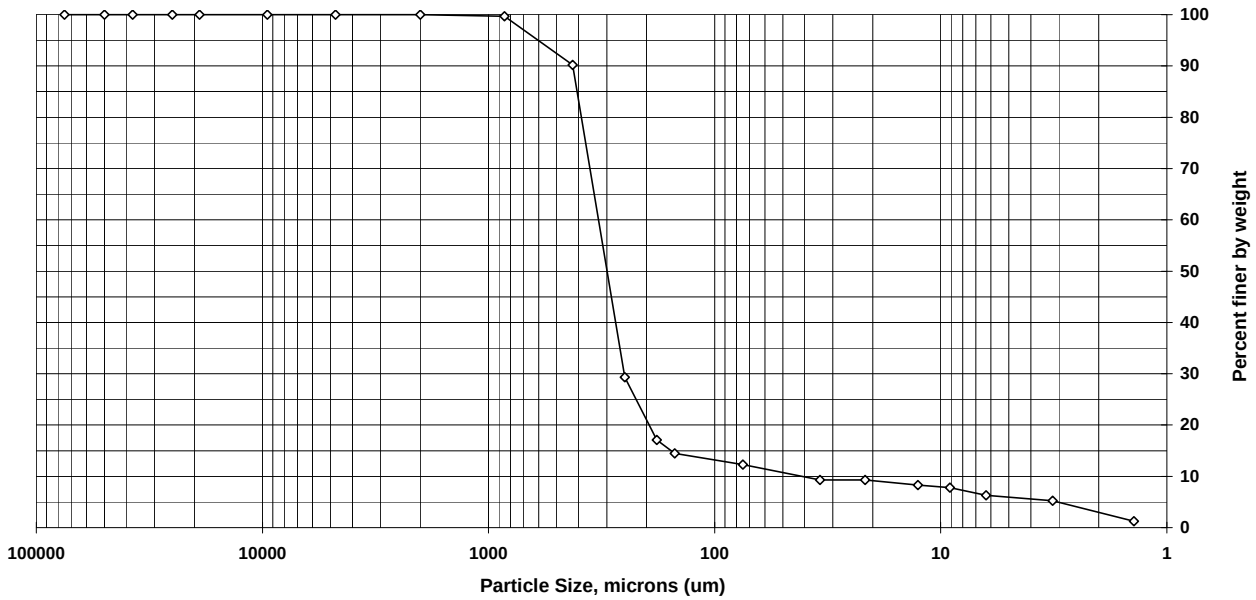
Particle Size of Soils by ASTM D422

				Date Received:	5/24/2017
Sample ID:	MRC-EW-2-26-30	**Percent Solids:**	82.0%	**Start Date:**	6/6/2017
Lab ID:	200-38715-A-4	**Specific Gravity:**	2.650	**End Date:**	6/10/2017

Shape (> #10): n/a

Non-soil material: n/a

Hardness (> #10): n/a



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.7	0.3
#40	425	90.2	9.5
#60	250	29.3	60.9
#80	180	17.1	12.2
#100	150	14.5	2.6
#200	75	12.3	2.2
Hyd1	34.2	9.3	3.0
Hyd2	21.6	9.3	0.0
Hyd3	12.6	8.3	1.0
Hyd4	9.1	7.8	0.5
Hyd5	6.3	6.3	1.5
Hyd6	3.2	5.3	1.0
Hyd7	1.4	1.3	4.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	87.7
Coarse Sand	0.0
Medium Sand	9.8
Fine Sand	77.9
Silt	6.0
Clay	6.3

Sediment Grain Size - D422

Client	
Client Sample ID	MRC-EW-1-16-20
Lab Sample ID	200-38715-A-1

Date Received	5/24/2017
Start Date	06/06/2017 19:26
End Date	06/10/2017 9:08

Dry Weight Determination

Tin Weight	1.08	g
Wet Sample + Tin	26.87	g
Dry Sample + Tin	21.85	g
% Moisture	19.46	%

Non-soil material:	n/a
Shape (> #10):	subangular
Hardness (> #10):	brittle

Date/Time in oven	06/06/2017 19:28
Date/Time out of oven	06/07/2017 15:51

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	44.70	247.69	202.99
Sample Weight (Oven Dried)			163

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.94
Sample <#10			162
% Passing #10			79.8

Hydrometer Data

Serial Number	504381
Calib. Date (mm/dd/yyyy)	07/18/2016
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.15	488.31	0.16	g	99.9	Gravel	
#10	2000	462.68	463.46	0.78	g	99.4	Sand	Coarse
#20	850	372.93	373.55	0.62	g	99.0	Sand	Medium
#40	425	353.15	354.85	1.70	g	98.0	Sand	Medium
#60	250	323.37	349.29	25.92	g	82.1	Sand	Fine
#80	180	319.96	372.67	52.71	g	49.8	Sand	Fine
#100	150	324.86	350.34	25.48	g	34.2	Sand	Fine
#200	75	312.32	331.46	19.14	g	22.5	Sand	Fine
				0.00	g	22.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	163

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0235	21.0	30.3	19.4	Silt	
5	5	1.0220	21.0	19.5	17.9	Silt	
15	15	1.0210	21.0	11.4	16.9	Silt	
30	30	1.0190	21.0	8.3	14.9	Silt	
60	59	1.0175	21.0	6	13.5	Silt	
250	256	1.0135	21.0	3	9.52	Clay	
1440	1440	1.0065	21.5	1.3	2.71	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	MRC-EW-1-26-30
Lab Sample ID	200-38715-A-2

Date Received	5/24/2017
Start Date	06/06/2017 19:28
End Date	06/10/2017 9:20

Dry Weight Determination

Tin Weight	1.09	g
Wet Sample + Tin	28.67	g
Dry Sample + Tin	23.54	g
% Moisture	18.60	%

Non-soil material:	n/a
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	06/06/2017 19:30
Date/Time out of oven	06/07/2017 15:52

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	45.53	189.90	144.37
Sample Weight (Oven Dried)			118

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			13
Sample <#10			105
% Passing #10			72.7

Hydrometer Data

Serial Number	504381
Calib. Date (mm/dd/yyyy)	07/18/2016
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500	447.36	455.01	7.65	g	93.5	Gravel	
#4	4750	488.15	491.50	3.35	g	90.7	Gravel	
#10	2000	462.68	464.72	2.04	g	89.0	Sand	Coarse
#20	850	372.93	376.00	3.07	g	86.4	Sand	Medium
#40	425	353.15	358.42	5.27	g	81.9	Sand	Medium
#60	250	323.37	344.66	21.29	g	63.9	Sand	Fine
#80	180	319.96	333.92	13.96	g	52.1	Sand	Fine
#100	150	324.86	329.51	4.65	g	48.2	Sand	Fine
#200	75	312.32	318.09	5.77	g	43.3	Sand	Fine
				0.00	g	43.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	118

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0310	21.0	27.1	37	Silt	
5	5	1.0290	21.0	17.7	34.3	Silt	
15	15	1.0265	21.0	10.6	30.9	Silt	
30	30	1.0245	21.0	7.7	28.1	Silt	
60	58	1.0225	21.0	5.7	25.4	Silt	
250	256	1.0180	21.0	2.9	19.3	Clay	
1440	1440	1.0115	21.5	1.3	10.5	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	MRC-EW-2-18-22
Lab Sample ID	200-38715-A-3

Date Received	5/24/2017
Start Date	06/06/2017 19:30
End Date	06/10/2017 9:31

Dry Weight Determination

Tin Weight	1.07	g
Wet Sample + Tin	21.85	g
Dry Sample + Tin	18.26	g
% Moisture	17.28	%

Non-soil material:	plant
Shape (> #10):	subangular
Hardness (> #10):	brittle

Date/Time in oven	06/06/2017 19:32
Date/Time out of oven	06/07/2017 15:52

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	45.17	213.90	168.73
Sample Weight (Oven Dried)			140

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.01
Sample <#10			140
% Passing #10			83

Hydrometer Data

Serial Number	504381
Calib. Date (mm/dd/yyyy)	07/18/2016
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.68	462.69	0.01	g	100.0	Sand	Coarse
#20	850	372.93	373.40	0.47	g	99.7	Sand	Medium
#40	425	353.15	354.88	1.73	g	98.5	Sand	Medium
#60	250	323.37	353.03	29.66	g	77.3	Sand	Fine
#80	180	319.96	368.26	48.30	g	42.8	Sand	Fine
#100	150	324.86	341.14	16.28	g	31.2	Sand	Fine
#200	75	312.32	326.08	13.76	g	21.4	Sand	Fine
				0.00	g	21.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	140

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0220	21.0	30.9	20.8	Silt	
5	5	1.0200	21.0	20	18.5	Silt	
15	15	1.0190	21.0	11.7	17.4	Silt	
30	29	1.0175	21.0	8.6	15.7	Silt	
60	58	1.0160	21.0	6.1	14	Silt	
250	250	1.0130	21.0	3.1	10.5	Clay	
1440	1434	1.0075	21.5	1.3	4.3	Clay	

Sediment Grain Size - D422

Client	
Client Sample ID	MRC-EW-2-26-30
Lab Sample ID	200-38715-A-4

Date Received	5/24/2017
Start Date	06/06/2017 19:32
End Date	06/10/2017 9:41

Dry Weight Determination

Tin Weight	1.08	g
Wet Sample + Tin	24.30	g
Dry Sample + Tin	20.11	g
% Moisture	18.04	%

Non-soil material:	n/a
Shape (> #10):	n/a
Hardness (> #10):	n/a

Date/Time in oven	06/06/2017 19:33
Date/Time out of oven	06/07/2017 15:52

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	44.73	237.36	192.63
Sample Weight (Oven Dried)			158

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			158
% Passing #10			82

Hydrometer Data

Serial Number	504381
Calib. Date (mm/dd/yyyy)	07/18/2016
Low Temp (C)	17.0
Reading at Low Temp	1.0045
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007333333
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	372.93	373.44	0.51	g	99.7	Sand	Medium
#40	425	353.15	368.21	15.06	g	90.2	Sand	Medium
#60	250	323.37	419.59	96.22	g	29.3	Sand	Fine
#80	180	319.96	339.24	19.28	g	17.1	Sand	Fine
#100	150	324.86	328.97	4.11	g	14.5	Sand	Fine
#200	75	312.32	315.75	3.43	g	12.3	Sand	Fine
				0.00	g	12.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	158

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0130	21.0	34.2	9.32	Silt	
5	5	1.0130	21.0	21.6	9.32	Silt	
15	15	1.0120	21.0	12.6	8.3	Silt	
30	29	1.0115	21.0	9.1	7.79	Silt	
60	63	1.0100	21.0	6.3	6.27	Silt	
250	250	1.0090	21.0	3.2	5.25	Clay	
1440	1434	1.0050	21.5	1.4	1.27	Clay	

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: Tetra Tech, Inc. Job Number: 200-38715-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Geotechnical					
Analysis Batch:200-117473					
200-38715-1	MRC-EW-1-16-20	T	Solid	D422	
200-38715-2	MRC-EW-1-26-30	T	Solid	D422	
200-38715-3	MRC-EW-2-18-22	T	Solid	D422	
200-38715-4	MRC-EW-2-26-30	T	Solid	D422	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 200-38715-1

Laboratory Chronicle

Lab ID: 200-38715-1 **Client ID: MRC-EW-1-16-20**

Sample Date/Time: 05/22/2017 13:55 Received Date/Time: 05/24/2017 10:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:D422	200-38715-A-1		200-117473		06/06/2017 19:26	1	TAL BUR	VTP

Lab ID: 200-38715-2 **Client ID: MRC-EW-1-26-30**

Sample Date/Time: 05/22/2017 14:05 Received Date/Time: 05/24/2017 10:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:D422	200-38715-A-2		200-117473		06/06/2017 19:28	1	TAL BUR	VTP

Lab ID: 200-38715-3 **Client ID: MRC-EW-2-18-22**

Sample Date/Time: 05/22/2017 15:00 Received Date/Time: 05/24/2017 10:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:D422	200-38715-A-3		200-117473		06/06/2017 19:30	1	TAL BUR	VTP

Lab ID: 200-38715-4 **Client ID: MRC-EW-2-26-30**

Sample Date/Time: 05/22/2017 15:10 Received Date/Time: 05/24/2017 10:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:D422	200-38715-A-4		200-117473		06/06/2017 19:32	1	TAL BUR	VTP

Lab References:
TAL BUR = TestAmerica Burlington

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 200-38715-1
Project/Site: MRC Block E Downgradient Investigation

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act (HSC	State Program	3	NA
TestAmerica Burlington	Florida	NELAP	4	E87467
TestAmerica Burlington	L-A-B	DoD ELAP		L2336
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAP	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAP	1	2006
TestAmerica Burlington	New Jersey	NELAP	2	VT972
TestAmerica Burlington	New York	NELAP	2	10391
TestAmerica Burlington	Pennsylvania	NELAP	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	US Fish & Wildlife	Federal		LE-058448-0
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAP	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

GEOTECHNICAL

COVER PAGE
GEOTECHNICAL

Lab Name: TestAmerica Burlington Job Number: 200-38715-1

SDG No.:

Project: MRC Block E Downgradient Investigation

Client Sample ID	Lab Sample ID
MRC-EW-1-16-20	200-38715-1
MRC-EW-1-26-30	200-38715-2
MRC-EW-2-18-22	200-38715-3
MRC-EW-2-26-30	200-38715-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GEOTECHNICAL

Client Sample ID: MRC-EW-1-16-20 | Lab Sample ID: 200-38715-1

Lab Name: TestAmerica Burlington | Job No.: 200-38715-1

SDG ID.:

Matrix: Solid | Date Sampled: 05/22/2017 13:55

Reporting Basis: WET | Date Received: 05/24/2017 10:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Gravel	0.1			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	77.4			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	0.5			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	1.4			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	75.5			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	100.0			% Passing			1	D422
	Silt	9.0			%			1	D422
	Clay	13.5			%			1	D422
	Sieve Size #4 - Percent Finer	99.9			% Passing			1	D422
	Sieve Size #10 - Percent Finer	99.4			% Passing			1	D422
	Sieve Size #20 - Percent Finer	99.0			% Passing			1	D422
	Sieve Size #40 - Percent Finer	98.0			% Passing			1	D422
	Sieve Size #60 - Percent Finer	82.1			% Passing			1	D422
	Sieve Size #80 - Percent Finer	49.8			% Passing			1	D422
	Sieve Size #100 - Percent Finer	34.2			% Passing			1	D422
	Sieve Size #200 - Percent Finer	22.5			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	19.4			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	17.9			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	16.9			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	14.9			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	13.5			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	9.5			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	2.7			% Passing			1	D422

1B-IN
INORGANIC ANALYSIS DATA SHEET
GEOTECHNICAL

Client Sample ID: MRC-EW-1-26-30 | Lab Sample ID: 200-38715-2

Lab Name: TestAmerica Burlington | Job No.: 200-38715-1

SDG ID.:

Matrix: Solid | Date Sampled: 05/22/2017 14:05

Reporting Basis: WET | Date Received: 05/24/2017 10:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Gravel	9.3			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	47.4			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	1.7			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	7.1			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	38.6			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	93.5			% Passing			1	D422
	Silt	17.9			%			1	D422
	Clay	25.4			%			1	D422
	Sieve Size #4 - Percent Finer	90.7			% Passing			1	D422
	Sieve Size #10 - Percent Finer	89.0			% Passing			1	D422
	Sieve Size #20 - Percent Finer	86.4			% Passing			1	D422
	Sieve Size #40 - Percent Finer	81.9			% Passing			1	D422
	Sieve Size #60 - Percent Finer	63.9			% Passing			1	D422
	Sieve Size #80 - Percent Finer	52.1			% Passing			1	D422
	Sieve Size #100 - Percent Finer	48.2			% Passing			1	D422
	Sieve Size #200 - Percent Finer	43.3			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	37.0			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	34.3			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	30.9			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	28.1			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	25.4			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	19.3			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	10.5			% Passing			1	D422

1B-IN
INORGANIC ANALYSIS DATA SHEET
GEOTECHNICAL

Client Sample ID: MRC-EW-2-18-22 | Lab Sample ID: 200-38715-3

Lab Name: TestAmerica Burlington | Job No.: 200-38715-1

SDG ID.:

Matrix: Solid | Date Sampled: 05/22/2017 15:00

Reporting Basis: WET | Date Received: 05/24/2017 10:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Gravel	0.0			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	78.6			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	0.0			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	1.5			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	77.1			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	100.0			% Passing			1	D422
	Silt	7.4			%			1	D422
	Clay	14.0			%			1	D422
	Sieve Size #4 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #10 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #20 - Percent Finer	99.7			% Passing			1	D422
	Sieve Size #40 - Percent Finer	98.5			% Passing			1	D422
	Sieve Size #60 - Percent Finer	77.3			% Passing			1	D422
	Sieve Size #80 - Percent Finer	42.8			% Passing			1	D422
	Sieve Size #100 - Percent Finer	31.2			% Passing			1	D422
	Sieve Size #200 - Percent Finer	21.4			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	20.8			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	18.5			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	17.4			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	15.7			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	14.0			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	10.5			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	4.3			% Passing			1	D422

1B-IN
INORGANIC ANALYSIS DATA SHEET
GEOTECHNICAL

Client Sample ID: MRC-EW-2-26-30 | Lab Sample ID: 200-38715-4

Lab Name: TestAmerica Burlington | Job No.: 200-38715-1

SDG ID.:

Matrix: Solid | Date Sampled: 05/22/2017 15:10

Reporting Basis: WET | Date Received: 05/24/2017 10:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Gravel	0.0			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	87.7			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	0.0			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	9.8			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	77.9			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	100.0			% Passing			1	D422
	Silt	6.0			%			1	D422
	Clay	6.3			%			1	D422
	Sieve Size #4 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #10 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #20 - Percent Finer	99.7			% Passing			1	D422
	Sieve Size #40 - Percent Finer	90.2			% Passing			1	D422
	Sieve Size #60 - Percent Finer	29.3			% Passing			1	D422
	Sieve Size #80 - Percent Finer	17.1			% Passing			1	D422
	Sieve Size #100 - Percent Finer	14.5			% Passing			1	D422
	Sieve Size #200 - Percent Finer	12.3			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	9.3			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	9.3			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	8.3			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	7.8			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	6.3			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	5.3			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	1.3			% Passing			1	D422

GEOTECHNICAL BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-38715-1

SDG No.:

Batch Number: 117473 Batch Start Date: 06/06/17 19:26 Batch Analyst: Pham, Vu T

Batch Method: D422 Batch End Date: 06/10/17 10:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	AnalysisComment				
200-38715-A-1	MRC-EW-1-16-20	D422	T	202.99 g	SEE-SAMPLE-DATA SHEETS				
200-38715-A-2	MRC-EW-1-26-30	D422	T	144.37 g	SEE-SAMPLE-DATA SHEETS				
200-38715-A-3	MRC-EW-2-18-22	D422	T	168.73 g	SEE-SAMPLE-DATA SHEETS				
200-38715-A-4	MRC-EW-2-26-30	D422	T	192.63 g	SEE-SAMPLE-DATA SHEETS				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

180325

BALTIMORE

Chain of Cust

200-38715 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Chris Pike	Site Contact: Stuart Cameron	Date: 5/22/2017	COC No:
Tera Tech	Tel/Fax: (412)921-8861 (Office)	Lab Contact: John McFadden	Carrier: Test America Courier	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) W			112IC07896 - LI 19
(412) 921-8861 Phone	TAT if different from Below 5 Days			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC, Block E Downgradient Investigation	☐ 1 week			
Site: Middle River Complex	☐ 2 days			Sampler: S. Cameron / W. Pryor
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Grain-Size Distribution Via ASTM D4	Sample Specific Notes:
MRC-EW-1-16-20	5/22/2017	13:55	C	SO	1	x	
MRC-EW-1-26-30	5/22/2017	14:05	C	SO	1	x	
MRC-EW-2-18-22	5/22/2017	15:00	C	SO	1	x	
MRC-EW-2-26-30	5/22/2017	15:10	C	SO	1	x	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TestAmerica	5-23-2017/1402
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TestAmerica	5-23-2017/1716		TABURL	5/24/17@1040
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Page 1 of 2

ORIGIN ID:MTNA (410) 869-0085
FRED FORSYTH
STL BALTIMORE
5710 EXECUTIVE DRIVE
SUITE 106
BALTIMORE, MD 21228
UNITED STATES US

SHIP DATE: 23MAY17
ACTWGT: 28.00 LB
CAD: 1030460/INET3850

BILL RECIPIENT

TO TESTAMERICA BURLINGTON
TESTAMERICA BURLINGTON
30 COMMUNITY DR
STE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: TT/LMMRC
INV:
PO: DEPT:

546J178734/53C1

FedEx Express

E

J171117021401uv

WED - 24 MAY 3:00P
STANDARD OVERNIGHT

TRK# 0201 7792 1228 6389

NA BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 200-38715-1

Login Number: 38715
List Number: 1
Creator: Cota, Fred P

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	275223
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1C°
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	SC/WP
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-81987-1

Job Description: MRC Block E

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Chris Pike



Approved for release.
John McFadden
Project Manager I
8/3/2017 4:24 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/03/2017

cc: Tony Apanavage
Samantha Brenner
Mike Martin
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 5

- Definitions 5
- Case Narrative 6
- Detection Summary 8
- Client Sample Results 10
- Default Detection Limits 18
- Surrogate Summary 20
- QC Sample Results 21
- QC Association 27
- Chronicle 29
- Certification Summary 31
- Method Summary 33
- Sample Summary 34
- Manual Integration Summary 35
- Reagent Traceability 44
  - COAs 59

Organic Sample Data 176

- GC/MS VOA 176
  - Method 8260C 176
    - Method 8260C QC Summary 177
    - Method 8260C Sample Data 189
    - Standards Data 230
      - Method 8260C ICAL Data 230
      - Method 8260C CCAL Data 265
    - Raw QC Data 280

Table of Contents

Method 8260C Tune Data 280
Method 8260C Blank Data 288
Method 8260C LCS/LCSD Data 297
Method 8260C MS/MSD Data 305
Method 8260C Run Logs 319
GC VOA 321
Method RSK-175 321
Method RSK-175 QC Summary 322
Method RSK-175 Sample Data 330
Standards Data 355
Method RSK-175 ICAL Data 355
Method RSK-175 CCAL Data 414
Raw QC Data 445
Method RSK-175 Blank Data 445
Method RSK-175 LCS/LCSD Data 461
Method RSK-175 Run Logs 480
Inorganic Sample Data 484
Metals Data 484
Met Cover Page 485
Met Sample Data 486
Met QC Data 488
Met ICV/CCV 488
Met Blanks 491
Met ICSA/ICSAB 493
Met MS/MSD/PDS 495
Met LCS/LCSD 497

Table of Contents

Met Serial Dilution 498
Met MDL 499
Met IECF 503
Met Linear Ranges 504
Met Preparation Log 505
Met Analysis Run Log 506
Met Prep Data 515
Met Raw Data 516
General Chemistry Data 1170
Gen Chem Cover Page 1171
Gen Chem Sample Data 1173
Gen Chem QC Data 1177
Gen Chem ICV/CCV 1177
Gen Chem Blanks 1181
Gen Chem MS/MSD/PDS 1183
Gen Chem Duplicates 1185
Gen Chem LCS/LCSD 1187
Gen Chem MDL 1188
Gen Chem Analysis Run Log 1196
Gen Chem Prep Data 1203
Gen Chem Raw Data 1210
Subcontracted Data 1311
Shipping and Receiving Documents 1326
Client Chain of Custody 1327

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E

Report Number: 240-81987-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 2520B Salinity analysis was performed at the TestAmerica Pittsburgh Laboratory. The RSK-175 Dissolved Gases analysis was performed at the TestAmerica Nashville Laboratory. The DHC analysis was performed at Microbial Insights.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 7/7/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples SEMW-9S-070617 (240-81987-1), SEMW-9I-070617 (240-81987-2), SEMW-8I-070617 (240-81987-3), SEMW-7I-070617 (240-81987-4) and TB-070617 (240-81987-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/13/2017.

Methylene Chloride was detected in method blank MB 240-287117/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples SEMW-9S-070617 (240-81987-1)[400X], SEMW-9I-070617 (240-81987-2)[25X], SEMW-8I-070617 (240-81987-3)[62.5X] and SEMW-7I-070617 (240-81987-4)[1250X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) associated with batch 240-287117 recovered above the upper control limit for difluorodichloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SEMW-9S-070617 (240-81987-1), SEMW-9I-070617 (240-81987-2), SEMW-8I-070617 (240-81987-3), SEMW-7I-070617 (240-81987-4), TB-070617 (240-81987-5) and (CCVIS 240-287117/3).

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

DISSOLVED GASES

Samples SEMW-9I-070617 (240-81987-2) and SEMW-8I-070617 (240-81987-3) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 07/17/2017 and 07/18/2017.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batches 490-445410 and 490-445603.

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

TOTAL RECOVERABLE METALS (ICP)
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/11/2017 and analyzed on 07/12/2017.

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

HARDNESS
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 07/17/2017.

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

ALKALINITY
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/18/2017.

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

TOTAL DISSOLVED SOLIDS
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/10/2017.

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

ANIONS
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/07/2017.

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

ANIONS
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/07/2017.

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

SALINITY
Samples SEMW-9S-070617 (240-81987-1) and SEMW-9I-070617 (240-81987-2) were analyzed for Salinity in accordance with SM 2520B. The samples were analyzed on 07/18/2017.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Client Sample ID: SEMW-9S-070617 — Lab Sample ID: 240-81987-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	210	J B	400	210	ug/L	400		8260C	Total/NA
Trichloroethene	15000		400	130	ug/L	400		8260C	Total/NA
Hardness as calcium carbonate	150		33	33	mg/L	1		2340B-1997	Total Recoverable
Calcium hardness as calcium carbonate	92		12	12	mg/L	1		2340B-1997	Total Recoverable
Magnesium hardness as calcium carbonate	61		21	21	mg/L	1		2340B-1997	Total Recoverable
Iron	2000		100	25	ug/L	1		6010C	Total Recoverable
Manganese	320		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	56		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.20	J	0.50	0.044	mg/L	1		300.0	Total/NA
Nitrate as N	0.12		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	88		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	620		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: SEMW-9I-070617 — Lab Sample ID: 240-81987-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	15	J	25	7.5	ug/L	25		8260C	Total/NA
Methyl tert-butyl ether	7.7	J	25	6.8	ug/L	25		8260C	Total/NA
Trichloroethene	940		25	8.3	ug/L	25		8260C	Total/NA
Ethane	0.0065		0.0050	0.0027	mg/L	1		RSK-175	Total/NA
Butane	0.010		0.010	0.0058	mg/L	1		RSK-175	Total/NA
Ethene	0.0069		0.0050	0.0022	mg/L	1		RSK-175	Total/NA
Methane	0.0079		0.0050	0.0017	mg/L	1		RSK-175	Total/NA
Propane	0.0090		0.0050	0.0033	mg/L	1		RSK-175	Total/NA
Hardness as calcium carbonate	38		33	33	mg/L	1		2340B-1997	Total Recoverable
Calcium hardness as calcium carbonate	18		12	12	mg/L	1		2340B-1997	Total Recoverable
Iron	1300		100	25	ug/L	1		6010C	Total Recoverable
Manganese	320		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	15		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.24	J	0.50	0.044	mg/L	1		300.0	Total/NA
Nitrate as N	0.18		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	8.2		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	170		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: SEMW-8I-070617 — Lab Sample ID: 240-81987-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1500		63	19	ug/L	62.5		8260C	Total/NA
Methylene Chloride	34	J B	63	33	ug/L	62.5		8260C	Total/NA
Trichloroethene	1100		63	21	ug/L	62.5		8260C	Total/NA
Ethane	0.037		0.0050	0.0027	mg/L	1		RSK-175	Total/NA
Butane	0.0085	J	0.010	0.0058	mg/L	1		RSK-175	Total/NA
Ethene	0.091		0.0050	0.0022	mg/L	1		RSK-175	Total/NA
Methane	0.38		0.0050	0.0017	mg/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SEMW-8I-070617 (Continued) — Lab Sample ID: 240-81987-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Propane	0.0075		0.0050	0.0033	mg/L	1		RSK-175	Total/NA

Client Sample ID: SEMW-7I-070617 — Lab Sample ID: 240-81987-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	790	J B	1300	660	ug/L	1250		8260C	Total/NA
Trichloroethene	26000		1300	410	ug/L	1250		8260C	Total/NA

Client Sample ID: TB-070617 — Lab Sample ID: 240-81987-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.5	J	10	1.0	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SEMW-9S-070617

Date Collected: 07/06/17 12:35
Date Received: 07/07/17 09:20

Lab Sample ID: 240-81987-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	92	U	400	92	ug/L			07/13/17 21:48	400
1,1,2,2-Tetrachloroethane	130	U	400	130	ug/L			07/13/17 21:48	400
1,1,2-Trichloro-1,2,2-trifluoroethane	160	U	400	160	ug/L			07/13/17 21:48	400
1,1,2-Trichloroethane	140	U	400	140	ug/L			07/13/17 21:48	400
1,1-Dichloroethane	100	U	400	100	ug/L			07/13/17 21:48	400
1,1-Dichloroethene	110	U	400	110	ug/L			07/13/17 21:48	400
1,2,4-Trichlorobenzene	110	U	400	110	ug/L			07/13/17 21:48	400
1,2-Dibromo-3-Chloropropane	190	U	800	190	ug/L			07/13/17 21:48	400
Ethylene Dibromide	92	U	400	92	ug/L			07/13/17 21:48	400
1,2-Dichlorobenzene	100	U	400	100	ug/L			07/13/17 21:48	400
1,2-Dichloroethane	120	U	400	120	ug/L			07/13/17 21:48	400
1,2-Dichloropropane	120	U	400	120	ug/L			07/13/17 21:48	400
1,3-Dichlorobenzene	130	U	400	130	ug/L			07/13/17 21:48	400
1,4-Dichlorobenzene	92	U	400	92	ug/L			07/13/17 21:48	400
2-Butanone (MEK)	410	U	4000	410	ug/L			07/13/17 21:48	400
2-Hexanone	490	U	4000	490	ug/L			07/13/17 21:48	400
4-Methyl-2-pentanone (MIBK)	280	U	4000	280	ug/L			07/13/17 21:48	400
Acetone	700	U	4000	700	ug/L			07/13/17 21:48	400
Benzene	110	U	400	110	ug/L			07/13/17 21:48	400
Dichlorobromomethane	120	U	400	120	ug/L			07/13/17 21:48	400
Bromoform	170	U	400	170	ug/L			07/13/17 21:48	400
Bromomethane	170	U	400	170	ug/L			07/13/17 21:48	400
Carbon disulfide	140	U	400	140	ug/L			07/13/17 21:48	400
Carbon tetrachloride	140	U	400	140	ug/L			07/13/17 21:48	400
Chlorobenzene	130	U	400	130	ug/L			07/13/17 21:48	400
Chloroethane	160	U	400	160	ug/L			07/13/17 21:48	400
Chloroform	120	U	400	120	ug/L			07/13/17 21:48	400
Chloromethane	170	U	400	170	ug/L			07/13/17 21:48	400
cis-1,2-Dichloroethene	120	U	400	120	ug/L			07/13/17 21:48	400
cis-1,3-Dichloropropene	100	U	400	100	ug/L			07/13/17 21:48	400
Cyclohexane	180	U	400	180	ug/L			07/13/17 21:48	400
Chlorodibromomethane	100	U	400	100	ug/L			07/13/17 21:48	400
Dichlorodifluoromethane	200	U	400	200	ug/L			07/13/17 21:48	400
Ethylbenzene	100	U	400	100	ug/L			07/13/17 21:48	400
Isopropylbenzene	84	U	400	84	ug/L			07/13/17 21:48	400
Methyl acetate	570	U	4000	570	ug/L			07/13/17 21:48	400
Methyl tert-butyl ether	110	U	400	110	ug/L			07/13/17 21:48	400
Methylcyclohexane	180	U	400	180	ug/L			07/13/17 21:48	400
Methylene Chloride	**210**	**J B**	400	210	ug/L			07/13/17 21:48	400
Styrene	92	U	400	92	ug/L			07/13/17 21:48	400
Tetrachloroethene	120	U	400	120	ug/L			07/13/17 21:48	400
Toluene	92	U	400	92	ug/L			07/13/17 21:48	400
trans-1,2-Dichloroethene	120	U	400	120	ug/L			07/13/17 21:48	400
trans-1,3-Dichloropropene	120	U	400	120	ug/L			07/13/17 21:48	400
Trichloroethene	**15000**		400	130	ug/L			07/13/17 21:48	400
Trichlorofluoromethane	200	U	400	200	ug/L			07/13/17 21:48	400
Vinyl chloride	180	U	400	180	ug/L			07/13/17 21:48	400
Xylenes, Total	96	U	800	96	ug/L			07/13/17 21:48	400

Client Sample ID: SEMW-9S-070617

Lab Sample ID: 240-81987-1

Date Collected: 07/06/17 12:35

Matrix: Water

Date Received: 07/07/17 09:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/13/17 21:48*	*400*
Dibromofluoromethane (Surr)	*97*		*69 - 124*		*07/13/17 21:48*	*400*
4-Bromofluorobenzene (Surr)	*103*		*69 - 120*		*07/13/17 21:48*	*400*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*07/13/17 21:48*	*400*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**150**		33	33	mg/L			07/17/17 16:29	1
Calcium hardness as calcium carbonate	**92**		12	12	mg/L			07/17/17 16:29	1
Magnesium hardness as calcium carbonate	**61**		21	21	mg/L			07/17/17 16:29	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2000**		100	25	ug/L		07/11/17 14:00	07/12/17 14:21	1
Manganese	**320**		15	5.1	ug/L		07/11/17 14:00	07/12/17 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**56**		5.0	2.6	mg/L			07/18/17 17:17	1
Bromide	**0.20**	**J**	0.50	0.044	mg/L			07/07/17 15:19	1
Nitrate as N	**0.12**		0.10	0.014	mg/L			07/07/17 15:19	1
Sulfate	**88**		1.0	0.35	mg/L			07/07/17 15:19	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**620**		10	7.8	mg/L			07/10/17 13:21	1

Client Sample ID: SEMW-9I-070617

Lab Sample ID: 240-81987-2

Date Collected: 07/06/17 12:40

Matrix: Water

Date Received: 07/07/17 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.8	U	25	5.8	ug/L			07/13/17 22:13	25
1,1,2,2-Tetrachloroethane	8.0	U	25	8.0	ug/L			07/13/17 22:13	25
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	25	10	ug/L			07/13/17 22:13	25
1,1,2-Trichloroethane	8.5	U	25	8.5	ug/L			07/13/17 22:13	25
1,1-Dichloroethane	6.3	U	25	6.3	ug/L			07/13/17 22:13	25
1,1-Dichloroethene	6.8	U	25	6.8	ug/L			07/13/17 22:13	25
1,2,4-Trichlorobenzene	6.8	U	25	6.8	ug/L			07/13/17 22:13	25
1,2-Dibromo-3-Chloropropane	12	U	50	12	ug/L			07/13/17 22:13	25
Ethylene Dibromide	5.8	U	25	5.8	ug/L			07/13/17 22:13	25
1,2-Dichlorobenzene	6.5	U	25	6.5	ug/L			07/13/17 22:13	25
1,2-Dichloroethane	7.5	U	25	7.5	ug/L			07/13/17 22:13	25
1,2-Dichloropropane	7.5	U	25	7.5	ug/L			07/13/17 22:13	25
1,3-Dichlorobenzene	8.0	U	25	8.0	ug/L			07/13/17 22:13	25
1,4-Dichlorobenzene	5.8	U	25	5.8	ug/L			07/13/17 22:13	25
2-Butanone (MEK)	26	U	250	26	ug/L			07/13/17 22:13	25
2-Hexanone	31	U	250	31	ug/L			07/13/17 22:13	25
4-Methyl-2-pentanone (MIBK)	18	U	250	18	ug/L			07/13/17 22:13	25
Acetone	44	U	250	44	ug/L			07/13/17 22:13	25

Client Sample ID: SEMW-9I-070617

Date Collected: 07/06/17 12:40
Date Received: 07/07/17 09:20

Lab Sample ID: 240-81987-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.0	U	25	7.0	ug/L			07/13/17 22:13	25
Dichlorobromomethane	7.5	U	25	7.5	ug/L			07/13/17 22:13	25
Bromoform	11	U	25	11	ug/L			07/13/17 22:13	25
Bromomethane	11	U	25	11	ug/L			07/13/17 22:13	25
Carbon disulfide	8.5	U	25	8.5	ug/L			07/13/17 22:13	25
Carbon tetrachloride	8.8	U	25	8.8	ug/L			07/13/17 22:13	25
Chlorobenzene	8.0	U	25	8.0	ug/L			07/13/17 22:13	25
Chloroethane	10	U	25	10	ug/L			07/13/17 22:13	25
Chloroform	7.8	U	25	7.8	ug/L			07/13/17 22:13	25
Chloromethane	11	U	25	11	ug/L			07/13/17 22:13	25
cis-1,2-Dichloroethene	**15**	**J**	25	7.5	ug/L			07/13/17 22:13	25
cis-1,3-Dichloropropene	6.5	U	25	6.5	ug/L			07/13/17 22:13	25
Cyclohexane	11	U	25	11	ug/L			07/13/17 22:13	25
Chlorodibromomethane	6.3	U	25	6.3	ug/L			07/13/17 22:13	25
Dichlorodifluoromethane	13	U	25	13	ug/L			07/13/17 22:13	25
Ethylbenzene	6.5	U	25	6.5	ug/L			07/13/17 22:13	25
Isopropylbenzene	5.3	U	25	5.3	ug/L			07/13/17 22:13	25
Methyl acetate	36	U	250	36	ug/L			07/13/17 22:13	25
Methyl tert-butyl ether	**7.7**	**J**	25	6.8	ug/L			07/13/17 22:13	25
Methylcyclohexane	11	U	25	11	ug/L			07/13/17 22:13	25
Methylene Chloride	13	U	25	13	ug/L			07/13/17 22:13	25
Styrene	5.8	U	25	5.8	ug/L			07/13/17 22:13	25
Tetrachloroethene	7.5	U	25	7.5	ug/L			07/13/17 22:13	25
Toluene	5.8	U	25	5.8	ug/L			07/13/17 22:13	25
trans-1,2-Dichloroethene	7.3	U	25	7.3	ug/L			07/13/17 22:13	25
trans-1,3-Dichloropropene	7.8	U	25	7.8	ug/L			07/13/17 22:13	25
Trichloroethene	**940**		25	8.3	ug/L			07/13/17 22:13	25
Trichlorofluoromethane	13	U	25	13	ug/L			07/13/17 22:13	25
Vinyl chloride	11	U	25	11	ug/L			07/13/17 22:13	25
Xylenes, Total	6.0	U	50	6.0	ug/L			07/13/17 22:13	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*73 - 120*		*07/13/17 22:13*	*25*
Dibromofluoromethane (Surr)	*94*		*69 - 124*		*07/13/17 22:13*	*25*
4-Bromofluorobenzene (Surr)	*107*		*69 - 120*		*07/13/17 22:13*	*25*
1,2-Dichloroethane-d4 (Surr)	*92*		*61 - 138*		*07/13/17 22:13*	*25*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.0065**		0.0050	0.0027	mg/L			07/17/17 12:57	1
Acetylene	0.0034	U	0.0050	0.0034	mg/L			07/18/17 11:06	1
Butane	**0.010**		0.010	0.0058	mg/L			07/17/17 12:57	1
Ethene	**0.0069**		0.0050	0.0022	mg/L			07/17/17 12:57	1
Methane	**0.0079**		0.0050	0.0017	mg/L			07/17/17 12:57	1
Propane	**0.0090**		0.0050	0.0033	mg/L			07/17/17 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*99*		*62 - 124*		*07/17/17 12:57*	*1*

Client Sample ID: SEMW-9I-070617

Lab Sample ID: 240-81987-2

Date Collected: 07/06/17 12:40

Matrix: Water

Date Received: 07/07/17 09:20

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**38**		33	33	mg/L			07/17/17 16:29	1
Calcium hardness as calcium carbonate	**18**		12	12	mg/L			07/17/17 16:29	1
Magnesium hardness as calcium carbonate	21	U	21	21	mg/L			07/17/17 16:29	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1300**		100	25	ug/L		07/11/17 14:00	07/12/17 14:26	1
Manganese	**320**		15	5.1	ug/L		07/11/17 14:00	07/12/17 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**15**		5.0	2.6	mg/L			07/18/17 17:31	1
Bromide	**0.24**	**J**	0.50	0.044	mg/L			07/07/17 15:59	1
Nitrate as N	**0.18**		0.10	0.014	mg/L			07/07/17 15:59	1
Sulfate	**8.2**		1.0	0.35	mg/L			07/07/17 15:59	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**170**		10	7.8	mg/L			07/10/17 13:21	1

Client Sample ID: SEMW-8I-070617

Lab Sample ID: 240-81987-3

Date Collected: 07/06/17 13:55

Matrix: Water

Date Received: 07/07/17 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	14	U	63	14	ug/L			07/13/17 22:37	62.5
1,1,2,2-Tetrachloroethane	20	U	63	20	ug/L			07/13/17 22:37	62.5
1,1,2-Trichloro-1,2,2-trifluoroethane	26	U	63	26	ug/L			07/13/17 22:37	62.5
1,1,2-Trichloroethane	21	U	63	21	ug/L			07/13/17 22:37	62.5
1,1-Dichloroethane	16	U	63	16	ug/L			07/13/17 22:37	62.5
1,1-Dichloroethene	17	U	63	17	ug/L			07/13/17 22:37	62.5
1,2,4-Trichlorobenzene	17	U	63	17	ug/L			07/13/17 22:37	62.5
1,2-Dibromo-3-Chloropropane	29	U	130	29	ug/L			07/13/17 22:37	62.5
Ethylene Dibromide	14	U	63	14	ug/L			07/13/17 22:37	62.5
1,2-Dichlorobenzene	16	U	63	16	ug/L			07/13/17 22:37	62.5
1,2-Dichloroethane	19	U	63	19	ug/L			07/13/17 22:37	62.5
1,2-Dichloropropane	19	U	63	19	ug/L			07/13/17 22:37	62.5
1,3-Dichlorobenzene	20	U	63	20	ug/L			07/13/17 22:37	62.5
1,4-Dichlorobenzene	14	U	63	14	ug/L			07/13/17 22:37	62.5
2-Butanone (MEK)	64	U	630	64	ug/L			07/13/17 22:37	62.5
2-Hexanone	77	U	630	77	ug/L			07/13/17 22:37	62.5
4-Methyl-2-pentanone (MIBK)	44	U	630	44	ug/L			07/13/17 22:37	62.5
Acetone	110	U	630	110	ug/L			07/13/17 22:37	62.5
Benzene	18	U	63	18	ug/L			07/13/17 22:37	62.5
Dichlorobromomethane	19	U	63	19	ug/L			07/13/17 22:37	62.5
Bromoform	27	U	63	27	ug/L			07/13/17 22:37	62.5
Bromomethane	26	U	63	26	ug/L			07/13/17 22:37	62.5
Carbon disulfide	21	U	63	21	ug/L			07/13/17 22:37	62.5
Carbon tetrachloride	22	U	63	22	ug/L			07/13/17 22:37	62.5
Chlorobenzene	20	U	63	20	ug/L			07/13/17 22:37	62.5

Client Sample ID: SEMW-8I-070617

Lab Sample ID: 240-81987-3

Date Collected: 07/06/17 13:55

Matrix: Water

Date Received: 07/07/17 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	26	U	63	26	ug/L			07/13/17 22:37	62.5
Chloroform	19	U	63	19	ug/L			07/13/17 22:37	62.5
Chloromethane	27	U	63	27	ug/L			07/13/17 22:37	62.5
cis-1,2-Dichloroethene	**1500**		63	19	ug/L			07/13/17 22:37	62.5
cis-1,3-Dichloropropene	16	U	63	16	ug/L			07/13/17 22:37	62.5
Cyclohexane	28	U	63	28	ug/L			07/13/17 22:37	62.5
Chlorodibromomethane	16	U	63	16	ug/L			07/13/17 22:37	62.5
Dichlorodifluoromethane	31	U	63	31	ug/L			07/13/17 22:37	62.5
Ethylbenzene	16	U	63	16	ug/L			07/13/17 22:37	62.5
Isopropylbenzene	13	U	63	13	ug/L			07/13/17 22:37	62.5
Methyl acetate	89	U	630	89	ug/L			07/13/17 22:37	62.5
Methyl tert-butyl ether	17	U	63	17	ug/L			07/13/17 22:37	62.5
Methylcyclohexane	28	U	63	28	ug/L			07/13/17 22:37	62.5
Methylene Chloride	**34**	**J B**	63	33	ug/L			07/13/17 22:37	62.5
Styrene	14	U	63	14	ug/L			07/13/17 22:37	62.5
Tetrachloroethene	19	U	63	19	ug/L			07/13/17 22:37	62.5
Toluene	14	U	63	14	ug/L			07/13/17 22:37	62.5
trans-1,2-Dichloroethene	18	U	63	18	ug/L			07/13/17 22:37	62.5
trans-1,3-Dichloropropene	19	U	63	19	ug/L			07/13/17 22:37	62.5
Trichloroethene	**1100**		63	21	ug/L			07/13/17 22:37	62.5
Trichlorofluoromethane	31	U	63	31	ug/L			07/13/17 22:37	62.5
Vinyl chloride	28	U	63	28	ug/L			07/13/17 22:37	62.5
Xylenes, Total	15	U	130	15	ug/L			07/13/17 22:37	62.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*73 - 120*		*07/13/17 22:37*	*62.5*
Dibromofluoromethane (Surr)	*96*		*69 - 124*		*07/13/17 22:37*	*62.5*
4-Bromofluorobenzene (Surr)	*104*		*69 - 120*		*07/13/17 22:37*	*62.5*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 138*		*07/13/17 22:37*	*62.5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.037**		0.0050	0.0027	mg/L			07/17/17 13:03	1
Acetylene	0.0034	U	0.0050	0.0034	mg/L			07/18/17 11:09	1
Butane	**0.0085**	**J**	0.010	0.0058	mg/L			07/17/17 13:03	1
Ethene	**0.091**		0.0050	0.0022	mg/L			07/17/17 13:03	1
Methane	**0.38**		0.0050	0.0017	mg/L			07/17/17 13:03	1
Propane	**0.0075**		0.0050	0.0033	mg/L			07/17/17 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*101*		*62 - 124*		*07/17/17 13:03*	*1*

Client Sample ID: SEMW-7I-070617

Lab Sample ID: 240-81987-4

Date Collected: 07/06/17 14:10

Matrix: Water

Date Received: 07/07/17 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	290	U	1300	290	ug/L			07/13/17 23:01	1250
1,1,2,2-Tetrachloroethane	400	U	1300	400	ug/L			07/13/17 23:01	1250

Client Sample ID: SEMW-7I-070617
Date Collected: 07/06/17 14:10
Date Received: 07/07/17 09:20

Lab Sample ID: 240-81987-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	510	U	1300	510	ug/L			07/13/17 23:01	1250
1,1,2-Trichloroethane	430	U	1300	430	ug/L			07/13/17 23:01	1250
1,1-Dichloroethane	310	U	1300	310	ug/L			07/13/17 23:01	1250
1,1-Dichloroethene	340	U	1300	340	ug/L			07/13/17 23:01	1250
1,2,4-Trichlorobenzene	340	U	1300	340	ug/L			07/13/17 23:01	1250
1,2-Dibromo-3-Chloropropane	590	U	2500	590	ug/L			07/13/17 23:01	1250
Ethylene Dibromide	290	U	1300	290	ug/L			07/13/17 23:01	1250
1,2-Dichlorobenzene	330	U	1300	330	ug/L			07/13/17 23:01	1250
1,2-Dichloroethane	380	U	1300	380	ug/L			07/13/17 23:01	1250
1,2-Dichloropropane	380	U	1300	380	ug/L			07/13/17 23:01	1250
1,3-Dichlorobenzene	400	U	1300	400	ug/L			07/13/17 23:01	1250
1,4-Dichlorobenzene	290	U	1300	290	ug/L			07/13/17 23:01	1250
2-Butanone (MEK)	1300	U	13000	1300	ug/L			07/13/17 23:01	1250
2-Hexanone	1500	U	13000	1500	ug/L			07/13/17 23:01	1250
4-Methyl-2-pentanone (MIBK)	890	U	13000	890	ug/L			07/13/17 23:01	1250
Acetone	2200	U	13000	2200	ug/L			07/13/17 23:01	1250
Benzene	350	U	1300	350	ug/L			07/13/17 23:01	1250
Dichlorobromomethane	380	U	1300	380	ug/L			07/13/17 23:01	1250
Bromoform	540	U	1300	540	ug/L			07/13/17 23:01	1250
Bromomethane	530	U	1300	530	ug/L			07/13/17 23:01	1250
Carbon disulfide	430	U	1300	430	ug/L			07/13/17 23:01	1250
Carbon tetrachloride	440	U	1300	440	ug/L			07/13/17 23:01	1250
Chlorobenzene	400	U	1300	400	ug/L			07/13/17 23:01	1250
Chloroethane	510	U	1300	510	ug/L			07/13/17 23:01	1250
Chloroform	390	U	1300	390	ug/L			07/13/17 23:01	1250
Chloromethane	540	U	1300	540	ug/L			07/13/17 23:01	1250
cis-1,2-Dichloroethene	380	U	1300	380	ug/L			07/13/17 23:01	1250
cis-1,3-Dichloropropene	330	U	1300	330	ug/L			07/13/17 23:01	1250
Cyclohexane	550	U	1300	550	ug/L			07/13/17 23:01	1250
Chlorodibromomethane	310	U	1300	310	ug/L			07/13/17 23:01	1250
Dichlorodifluoromethane	630	U	1300	630	ug/L			07/13/17 23:01	1250
Ethylbenzene	330	U	1300	330	ug/L			07/13/17 23:01	1250
Isopropylbenzene	260	U	1300	260	ug/L			07/13/17 23:01	1250
Methyl acetate	1800	U	13000	1800	ug/L			07/13/17 23:01	1250
Methyl tert-butyl ether	340	U	1300	340	ug/L			07/13/17 23:01	1250
Methylcyclohexane	560	U	1300	560	ug/L			07/13/17 23:01	1250
Methylene Chloride	**790**	**J B**	1300	660	ug/L			07/13/17 23:01	1250
Styrene	290	U	1300	290	ug/L			07/13/17 23:01	1250
Tetrachloroethene	380	U	1300	380	ug/L			07/13/17 23:01	1250
Toluene	290	U	1300	290	ug/L			07/13/17 23:01	1250
trans-1,2-Dichloroethene	360	U	1300	360	ug/L			07/13/17 23:01	1250
trans-1,3-Dichloropropene	390	U	1300	390	ug/L			07/13/17 23:01	1250
Trichloroethene	**26000**		1300	410	ug/L			07/13/17 23:01	1250
Trichlorofluoromethane	630	U	1300	630	ug/L			07/13/17 23:01	1250
Vinyl chloride	560	U	1300	560	ug/L			07/13/17 23:01	1250
Xylenes, Total	300	U	2500	300	ug/L			07/13/17 23:01	1250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*73 - 120*		*07/13/17 23:01*	*1250*
Dibromofluoromethane (Surr)	*95*		*69 - 124*		*07/13/17 23:01*	*1250*

Client Sample ID: SEMW-7I-070617

Lab Sample ID: 240-81987-4

Date Collected: 07/06/17 14:10

Matrix: Water

Date Received: 07/07/17 09:20

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*69 - 120*		*07/13/17 23:01*	*1250*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*07/13/17 23:01*	*1250*

Client Sample ID: TB-070617

Lab Sample ID: 240-81987-5

Date Collected: 07/06/17 00:00

Matrix: Water

Date Received: 07/07/17 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/13/17 23:25	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/13/17 23:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/13/17 23:25	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/13/17 23:25	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/13/17 23:25	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/13/17 23:25	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/13/17 23:25	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/13/17 23:25	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/13/17 23:25	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/13/17 23:25	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/13/17 23:25	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/13/17 23:25	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/13/17 23:25	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/13/17 23:25	1
2-Butanone (MEK)	**1.5**	**J**	10	1.0	ug/L			07/13/17 23:25	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/13/17 23:25	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/13/17 23:25	1
Acetone	1.8	U	10	1.8	ug/L			07/13/17 23:25	1
Benzene	0.28	U	1.0	0.28	ug/L			07/13/17 23:25	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/13/17 23:25	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/13/17 23:25	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/13/17 23:25	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/13/17 23:25	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/13/17 23:25	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/13/17 23:25	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/13/17 23:25	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/13/17 23:25	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/13/17 23:25	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/13/17 23:25	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/13/17 23:25	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/13/17 23:25	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/13/17 23:25	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/13/17 23:25	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/13/17 23:25	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/13/17 23:25	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/13/17 23:25	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/13/17 23:25	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/13/17 23:25	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/13/17 23:25	1
Styrene	0.23	U	1.0	0.23	ug/L			07/13/17 23:25	1

Client Sample ID: TB-070617

Date Collected: 07/06/17 00:00
Date Received: 07/07/17 09:20

Lab Sample ID: 240-81987-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/13/17 23:25	1
Toluene	0.23	U	1.0	0.23	ug/L			07/13/17 23:25	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/13/17 23:25	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/13/17 23:25	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/13/17 23:25	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/13/17 23:25	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/13/17 23:25	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/13/17 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/13/17 23:25*	*1*
Dibromofluoromethane (Surr)	*95*		*69 - 124*		*07/13/17 23:25*	*1*
4-Bromofluorobenzene (Surr)	*103*		*69 - 120*		*07/13/17 23:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*		*07/13/17 23:25*	*1*

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

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	1.0	0.23	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.32	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.41	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.34	ug/L	8260C
1,1-Dichloroethane	1.0	0.25	ug/L	8260C
1,1-Dichloroethene	1.0	0.27	ug/L	8260C
1,2,4-Trichlorobenzene	1.0	0.27	ug/L	8260C
1,2-Dibromo-3-Chloropropane	2.0	0.47	ug/L	8260C
1,2-Dichlorobenzene	1.0	0.26	ug/L	8260C
1,2-Dichloroethane	1.0	0.30	ug/L	8260C
1,2-Dichloropropane	1.0	0.30	ug/L	8260C
1,3-Dichlorobenzene	1.0	0.32	ug/L	8260C
1,4-Dichlorobenzene	1.0	0.23	ug/L	8260C
2-Butanone (MEK)	10	1.0	ug/L	8260C
2-Hexanone	10	1.2	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	10	0.71	ug/L	8260C
Acetone	10	1.8	ug/L	8260C
Benzene	1.0	0.28	ug/L	8260C
Bromoform	1.0	0.43	ug/L	8260C
Bromomethane	1.0	0.42	ug/L	8260C
Carbon disulfide	1.0	0.34	ug/L	8260C
Carbon tetrachloride	1.0	0.35	ug/L	8260C
Chlorobenzene	1.0	0.32	ug/L	8260C
Chlorodibromomethane	1.0	0.25	ug/L	8260C
Chloroethane	1.0	0.41	ug/L	8260C
Chloroform	1.0	0.31	ug/L	8260C
Chloromethane	1.0	0.43	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.26	ug/L	8260C
Cyclohexane	1.0	0.44	ug/L	8260C
Dichlorobromomethane	1.0	0.30	ug/L	8260C
Dichlorodifluoromethane	1.0	0.50	ug/L	8260C
Ethylbenzene	1.0	0.26	ug/L	8260C
Ethylene Dibromide	1.0	0.23	ug/L	8260C
Isopropylbenzene	1.0	0.21	ug/L	8260C
Methyl acetate	10	1.4	ug/L	8260C
Methyl tert-butyl ether	1.0	0.27	ug/L	8260C
Methylcyclohexane	1.0	0.45	ug/L	8260C
Methylene Chloride	1.0	0.53	ug/L	8260C
Styrene	1.0	0.23	ug/L	8260C
Tetrachloroethene	1.0	0.30	ug/L	8260C
Toluene	1.0	0.23	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.31	ug/L	8260C
Trichloroethene	1.0	0.33	ug/L	8260C
Trichlorofluoromethane	1.0	0.50	ug/L	8260C
Vinyl chloride	1.0	0.45	ug/L	8260C
Xylenes, Total	2.0	0.24	ug/L	8260C

Method: RSK-175 - Dissolved Gases (GC)

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	RL	MDL	Units	Method
Acetylene	0.0050	0.0034	mg/L	RSK-175
Butane	0.010	0.0058	mg/L	RSK-175
Ethane	0.0050	0.0027	mg/L	RSK-175
Ethene	0.0050	0.0022	mg/L	RSK-175
Methane	0.0050	0.0017	mg/L	RSK-175
Propane	0.0050	0.0033	mg/L	RSK-175

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	RL	MDL	Units	Method
Calcium hardness as calcium carbonate	12	12	mg/L	2340B-1997
Hardness as calcium carbonate	33	33	mg/L	2340B-1997
Magnesium hardness as calcium carbonate	21	21	mg/L	2340B-1997

Method: 6010C - Metals (ICP) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units	Method
Iron	100	25	ug/L	6010C
Manganese	15	5.1	ug/L	6010C

General Chemistry

Analyte	RL	MDL	Units	Method
Alkalinity	5.0	2.6	mg/L	2320B-1997
Bromide	0.50	0.044	mg/L	300.0
Nitrate as N	0.10	0.014	mg/L	300.0
Sulfate	1.0	0.35	mg/L	300.0
Salinity	2.0	2.0	No Unit	SM 2520B
Total Dissolved Solids	10	7.8	mg/L	SM 2540C

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	12DCE
Lab Sample ID	Client Sample ID	(73-120)	(69-124)	(69-120)	(61-138)
240-81987-1	SEMW-9S-070617	103	97	103	93
240-81987-2	SEMW-9I-070617	106	94	107	92
240-81987-3	SEMW-8I-070617	106	96	104	94
240-81987-4	SEMW-7I-070617	104	95	102	93
240-81987-5	TB-070617	103	95	103	97
240-82074-B-10 MS	Matrix Spike	103	102	107	106
240-82074-B-10 MSD	Matrix Spike Duplicate	104	100	107	100
LCS 240-287117/4	Lab Control Sample	105	103	107	102
MB 240-287117/7	Method Blank	101	93	101	91

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		tylene (Su
Lab Sample ID	Client Sample ID	(62-124)
240-81987-2	SEMW-9I-070617	99
240-81987-3	SEMW-8I-070617	101
LCS 490-445410/8	Lab Control Sample	102
LCSD 490-445410/9	Lab Control Sample Dup	103
MB 490-445410/7	Method Blank	96

Surrogate Legend

Acetylene (Surr) = Acetylene (Surr)

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

Lab Sample ID: MB 240-287117/7
Matrix: Water
Analysis Batch: 287117

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/13/17 20:36	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/13/17 20:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/13/17 20:36	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/13/17 20:36	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/13/17 20:36	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/13/17 20:36	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/13/17 20:36	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/13/17 20:36	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/13/17 20:36	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/13/17 20:36	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/13/17 20:36	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/13/17 20:36	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/13/17 20:36	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/13/17 20:36	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/13/17 20:36	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/13/17 20:36	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/13/17 20:36	1
Acetone	1.8	U	10	1.8	ug/L			07/13/17 20:36	1
Benzene	0.28	U	1.0	0.28	ug/L			07/13/17 20:36	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/13/17 20:36	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/13/17 20:36	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/13/17 20:36	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/13/17 20:36	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/13/17 20:36	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/13/17 20:36	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/13/17 20:36	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/13/17 20:36	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/13/17 20:36	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/13/17 20:36	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/13/17 20:36	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/13/17 20:36	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/13/17 20:36	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/13/17 20:36	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/13/17 20:36	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/13/17 20:36	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/13/17 20:36	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/13/17 20:36	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/13/17 20:36	1
Methylene Chloride	0.538	J	1.0	0.53	ug/L			07/13/17 20:36	1
Styrene	0.23	U	1.0	0.23	ug/L			07/13/17 20:36	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/13/17 20:36	1
Toluene	0.23	U	1.0	0.23	ug/L			07/13/17 20:36	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/13/17 20:36	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/13/17 20:36	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/13/17 20:36	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/13/17 20:36	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/13/17 20:36	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/13/17 20:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*73 - 120*		*07/13/17 20:36*	*1*
Dibromofluoromethane (Surr)	*93*		*69 - 124*		*07/13/17 20:36*	*1*
4-Bromofluorobenzene (Surr)	*101*		*69 - 120*		*07/13/17 20:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*61 - 138*		*07/13/17 20:36*	*1*

Lab Sample ID: LCS 240-287117/4
Matrix: Water
Analysis Batch: 287117

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.4		ug/L		117	64 - 147
1,1,2,2-Tetrachloroethane	20.0	19.2		ug/L		96	58 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.0		ug/L		95	65 - 144
1,1,2-Trichloroethane	20.0	22.3		ug/L		112	76 - 121
1,1-Dichloroethane	20.0	22.1		ug/L		110	74 - 120
1,1-Dichloroethene	20.0	20.2		ug/L		101	65 - 127
1,2,4-Trichlorobenzene	20.0	22.3		ug/L		111	34 - 141
1,2-Dibromo-3-Chloropropane	20.0	18.4		ug/L		92	50 - 130
Ethylene Dibromide	20.0	20.6		ug/L		103	80 - 120
1,2-Dichlorobenzene	20.0	21.5		ug/L		107	80 - 120
1,2-Dichloroethane	20.0	21.5		ug/L		107	68 - 133
1,2-Dichloropropane	20.0	21.1		ug/L		105	78 - 127
1,3-Dichlorobenzene	20.0	21.6		ug/L		108	80 - 120
1,4-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120
2-Butanone (MEK)	40.0	37.2		ug/L		93	43 - 149
2-Hexanone	40.0	38.9		ug/L		97	28 - 169
4-Methyl-2-pentanone (MIBK)	40.0	37.1		ug/L		93	53 - 144
Acetone	40.0	37.0		ug/L		93	35 - 131
Benzene	20.0	22.0		ug/L		110	79 - 120
Dichlorobromomethane	20.0	20.7		ug/L		104	79 - 125
Bromoform	20.0	20.2		ug/L		101	55 - 145
Bromomethane	20.0	18.5		ug/L		92	17 - 158
Carbon disulfide	20.0	19.4		ug/L		97	49 - 141
Carbon tetrachloride	20.0	22.2		ug/L		111	55 - 171
Chlorobenzene	20.0	20.3		ug/L		102	80 - 120
Chloroethane	20.0	20.4		ug/L		102	10 - 149
Chloroform	20.0	21.7		ug/L		109	80 - 120
Chloromethane	20.0	20.5		ug/L		103	59 - 124
cis-1,2-Dichloroethene	20.0	22.0		ug/L		110	77 - 120
cis-1,3-Dichloropropene	20.0	22.4		ug/L		112	75 - 120
Cyclohexane	20.0	20.0		ug/L		100	66 - 135
Chlorodibromomethane	20.0	20.7		ug/L		104	64 - 129
Dichlorodifluoromethane	20.0	23.3		ug/L		117	42 - 141
Ethylbenzene	20.0	22.4		ug/L		112	80 - 120
Isopropylbenzene	20.0	22.6		ug/L		113	80 - 128
Methyl acetate	40.0	36.6		ug/L		91	63 - 137
Methyl tert-butyl ether	20.0	21.9		ug/L		109	73 - 120
Methylcyclohexane	20.0	19.4		ug/L		97	63 - 141
Methylene Chloride	20.0	19.5		ug/L		98	64 - 140
Styrene	20.0	22.4		ug/L		112	80 - 121
Tetrachloroethene	20.0	20.9		ug/L		105	80 - 122
Toluene	20.0	21.6		ug/L		108	78 - 120
trans-1,2-Dichloroethene	20.0	21.0		ug/L		105	74 - 124

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

Lab Sample ID: LCS 240-287117/4
Matrix: Water
Analysis Batch: 287117

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	67 - 120
Trichloroethene	20.0	22.9		ug/L		115	76 - 124
Trichlorofluoromethane	20.0	22.6		ug/L		113	27 - 176
Vinyl chloride	20.0	21.3		ug/L		107	65 - 124
Xylenes, Total	40.0	44.4		ug/L		111	80 - 120
m-Xylene & p-Xylene	20.0	21.9		ug/L		109	80 - 120
o-Xylene	20.0	22.5		ug/L		112	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*69 - 124*
4-Bromofluorobenzene (Surr)	*107*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*61 - 138*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 490-445410/7
Matrix: Water
Analysis Batch: 445410

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.0027	U	0.0050	0.0027	mg/L			07/17/17 12:23	1
Acetylene	0.0034	U	0.0050	0.0034	mg/L			07/17/17 12:23	1
Butane	0.0058	U	0.010	0.0058	mg/L			07/17/17 12:23	1
Ethene	0.0022	U	0.0050	0.0022	mg/L			07/17/17 12:23	1
Methane	0.0017	U	0.0050	0.0017	mg/L			07/17/17 12:23	1
Propane	0.0033	U	0.0050	0.0033	mg/L			07/17/17 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Acetylene (Surr)	*96*		*62 - 124*		*07/17/17 12:23*	*1*

Lab Sample ID: LCS 490-445410/8
Matrix: Water
Analysis Batch: 445410

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane	0.527	0.510		mg/L		97	80 - 120
Ethene	0.493	0.499		mg/L		101	80 - 120
Methane	0.287	0.277		mg/L		96	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Acetylene (Surr)	*102*		*62 - 124*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 490-445410/9
Matrix: Water
Analysis Batch: 445410

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane			0.527	0.522		mg/L		99	80 - 120	2	30
Ethene			0.493	0.510		mg/L		103	80 - 120	2	29
Methane			0.287	0.283		mg/L		99	80 - 120	2	33

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Acetylene (Surr)	*103*		*62 - 124*

Lab Sample ID: LCS 490-445603/6
Matrix: Water
Analysis Batch: 445603

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acetylene			0.463	0.466		mg/L		101	80 - 120		

Lab Sample ID: LCSD 490-445603/7
Matrix: Water
Analysis Batch: 445603

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetylene			0.463	0.469		mg/L		101	80 - 120	1	33

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-286672/1-A
Matrix: Water
Analysis Batch: 286913

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 286672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25	U	100	25	ug/L		07/11/17 14:00	07/12/17 13:35	1
Manganese	5.1	U	15	5.1	ug/L		07/11/17 14:00	07/12/17 13:35	1

Lab Sample ID: LCS 240-286672/2-A
Matrix: Water
Analysis Batch: 286913

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 286672

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			1000	1040		ug/L		104	80 - 120		
Manganese			500	520		ug/L		104	80 - 120		
Calcium			50000	50200		ug/L		100	80 - 120		
Magnesium			50000	50800		ug/L		102	80 - 120		

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-287816/3
Matrix: Water
Analysis Batch: 287816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/18/17 17:05	1

Lab Sample ID: LCS 240-287816/2
Matrix: Water
Analysis Batch: 287816

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	377	385		mg/L		102	86 - 123

Lab Sample ID: 240-81987-1 DU
Matrix: Water
Analysis Batch: 287816

Client Sample ID: SEMW-9S-070617
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	56		56.2		mg/L		0.2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-286317/3
Matrix: Water
Analysis Batch: 286317

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.10	0.014	mg/L			07/07/17 13:00	1

Lab Sample ID: LCS 240-286317/4
Matrix: Water
Analysis Batch: 286317

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.47		mg/L		99	90 - 110
Nitrate as N	2.50	2.52		mg/L		101	90 - 110

Lab Sample ID: MB 240-286350/3
Matrix: Water
Analysis Batch: 286350

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.044	U	0.50	0.044	mg/L			07/07/17 13:00	1
Sulfate	0.35	U	1.0	0.35	mg/L			07/07/17 13:00	1

Lab Sample ID: LCS 240-286350/4
Matrix: Water
Analysis Batch: 286350

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.2		mg/L		102	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Method: SM 2520B - Salinity

Lab Sample ID: MB 180-217391/1
Matrix: Water
Analysis Batch: 217391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-286538/1
Matrix: Water
Analysis Batch: 286538

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			07/10/17 13:21	1

Lab Sample ID: LCS 240-286538/2
Matrix: Water
Analysis Batch: 286538

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			242	262		mg/L		108	80 - 120		

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

GC/MS VOA

Analysis Batch: 287117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	8260C	
240-81987-2	SEMW-9I-070617	Total/NA	Water	8260C	
240-81987-3	SEMW-8I-070617	Total/NA	Water	8260C	
240-81987-4	SEMW-7I-070617	Total/NA	Water	8260C	
240-81987-5	TB-070617	Total/NA	Water	8260C	
MB 240-287117/7	Method Blank	Total/NA	Water	8260C	
LCS 240-287117/4	Lab Control Sample	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 445410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-2	SEMW-9I-070617	Total/NA	Water	RSK-175	
240-81987-3	SEMW-8I-070617	Total/NA	Water	RSK-175	
MB 490-445410/7	Method Blank	Total/NA	Water	RSK-175	
LCS 490-445410/8	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 490-445410/9	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 445603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-2	SEMW-9I-070617	Total/NA	Water	RSK-175	
240-81987-3	SEMW-8I-070617	Total/NA	Water	RSK-175	
LCS 490-445603/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 490-445603/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Metals

Prep Batch: 286672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total Recoverable	Water	3005A	
240-81987-2	SEMW-9I-070617	Total Recoverable	Water	3005A	
MB 240-286672/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-286672/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 286913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total Recoverable	Water	6010C	286672
240-81987-2	SEMW-9I-070617	Total Recoverable	Water	6010C	286672
MB 240-286672/1-A	Method Blank	Total Recoverable	Water	6010C	286672
LCS 240-286672/2-A	Lab Control Sample	Total Recoverable	Water	6010C	286672

Analysis Batch: 287557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total Recoverable	Water	2340B-1997	
240-81987-2	SEMW-9I-070617	Total Recoverable	Water	2340B-1997	

General Chemistry

Analysis Batch: 217391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	SM 2520B	
240-81987-2	SEMW-9I-070617	Total/NA	Water	SM 2520B	
MB 180-217391/1	Method Blank	Total/NA	Water	SM 2520B	

Analysis Batch: 286317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	300.0	
240-81987-2	SEMW-9I-070617	Total/NA	Water	300.0	
MB 240-286317/3	Method Blank	Total/NA	Water	300.0	
LCS 240-286317/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 286350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	300.0	
240-81987-2	SEMW-9I-070617	Total/NA	Water	300.0	
MB 240-286350/3	Method Blank	Total/NA	Water	300.0	
LCS 240-286350/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 286538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	SM 2540C	
240-81987-2	SEMW-9I-070617	Total/NA	Water	SM 2540C	
MB 240-286538/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-286538/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 287816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-81987-1	SEMW-9S-070617	Total/NA	Water	2320B-1997	
240-81987-2	SEMW-9I-070617	Total/NA	Water	2320B-1997	
MB 240-287816/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-287816/2	Lab Control Sample	Total/NA	Water	2320B-1997	
240-81987-1 DU	SEMW-9S-070617	Total/NA	Water	2320B-1997	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Client Sample ID: SEMW-9S-070617

Lab Sample ID: 240-81987-1

Date Collected: 07/06/17 12:35

Matrix: Water

Date Received: 07/07/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		400	287117	07/13/17 21:48	TJL1	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287557	07/17/17 16:29	KLC	TAL CAN
Total Recoverable	Prep	3005A			286672	07/11/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	286913	07/12/17 14:21	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	287816	07/18/17 17:17	CL	TAL CAN
Total/NA	Analysis	300.0		1	286317	07/07/17 15:19	JWW	TAL CAN
Total/NA	Analysis	300.0		1	286350	07/07/17 15:19	JWW	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	286538	07/10/17 13:21	MM	TAL CAN

Client Sample ID: SEMW-9I-070617

Lab Sample ID: 240-81987-2

Date Collected: 07/06/17 12:40

Matrix: Water

Date Received: 07/07/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	287117	07/13/17 22:13	TJL1	TAL CAN
Total/NA	Analysis	RSK-175		1	445410	07/17/17 12:57	AAB	TAL NSH
Total/NA	Analysis	RSK-175		1	445603	07/18/17 11:06	AAB	TAL NSH
Total Recoverable	Analysis	2340B-1997		1	287557	07/17/17 16:29	KLC	TAL CAN
Total Recoverable	Prep	3005A			286672	07/11/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	286913	07/12/17 14:26	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	287816	07/18/17 17:31	CL	TAL CAN
Total/NA	Analysis	300.0		1	286317	07/07/17 15:59	JWW	TAL CAN
Total/NA	Analysis	300.0		1	286350	07/07/17 15:59	JWW	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	286538	07/10/17 13:21	MM	TAL CAN

Client Sample ID: SEMW-8I-070617

Lab Sample ID: 240-81987-3

Date Collected: 07/06/17 13:55

Matrix: Water

Date Received: 07/07/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		62.5	287117	07/13/17 22:37	TJL1	TAL CAN
Total/NA	Analysis	RSK-175		1	445410	07/17/17 13:03	AAB	TAL NSH
Total/NA	Analysis	RSK-175		1	445603	07/18/17 11:09	AAB	TAL NSH

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Client Sample ID: SEMW-7I-070617

Lab Sample ID: 240-81987-4

Date Collected: 07/06/17 14:10

Matrix: Water

Date Received: 07/07/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1250	287117	07/13/17 23:01	TJL1	TAL CAN

Client Sample ID: TB-070617

Lab Sample ID: 240-81987-5

Date Collected: 07/06/17 00:00

Matrix: Water

Date Received: 07/07/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	287117	07/13/17 23:25	TJL1	TAL CAN

Laboratory References:

Micro = Micro, 10515 Research Dr, Knoxville, TN 37932

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-17 *
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-17 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *
Wisconsin	State Program	5	999518190	08-31-17 *

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	10-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-17
New Jersey	NELAP	2	TN965	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Laboratory: TestAmerica Nashville (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-17 *
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-17
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-17
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-17 *
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-17
Wyoming (UST)	A2LA	8	453.07	12-31-17

Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL NSH
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
SM 2520B	Salinity	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
DHC	General Sub Contract Method	NONE	Micro
DHC (Send unpreserved liter poly)	General Sub Contract Method	NONE	Micro

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

Micro = Micro, 10515 Research Dr, Knoxville, TN 37932

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-81987-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-81987-1	SEMW-9S-070617	Water	07/06/17 12:35	07/07/17 09:20
240-81987-2	SEMW-9I-070617	Water	07/06/17 12:40	07/07/17 09:20
240-81987-3	SEMW-8I-070617	Water	07/06/17 13:55	07/07/17 09:20
240-81987-4	SEMW-7I-070617	Water	07/06/17 14:10	07/07/17 09:20
240-81987-5	TB-070617	Water	07/06/17 00:00	07/07/17 09:20

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: A3UX9 Analysis Batch Number: 286596

Lab Sample ID: STD8260 240-286596/9 IC Client Sample ID:

Date Analyzed: 07/10/17 19:57 Lab File ID: UX964312.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.38	Split Peak	laveyt	07/10/17 21:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Batch Number: 274398

Lab Sample ID: STD1 240-274398/1 IC Client Sample ID:

Date Analyzed: 04/12/17 10:47 Lab File ID: 240-0063987-001_02_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.96	Peak not integrated	nollel	04/12/17 14:26

Lab Sample ID: STD5 240-274398/5 ICRT Client Sample ID:

Date Analyzed: 04/12/17 12:08 Lab File ID: 240-0063987-005_06_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.98	Peak not integrated	nollel	04/12/17 14:24

Lab Sample ID: STD6 240-274398/6 IC Client Sample ID:

Date Analyzed: 04/12/17 12:28 Lab File ID: 240-0063987-006_07_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.97	Peak not integrated	nollel	04/12/17 14:25

Lab Sample ID: STD7 240-274398/7 IC Client Sample ID:

Date Analyzed: 04/12/17 12:48 Lab File ID: 240-0063987-007_08_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.99	Peak not integrated	nollel	04/12/17 14:25

Lab Sample ID: STD8 240-274398/8 IC Client Sample ID:

Date Analyzed: 04/12/17 13:08 Lab File ID: 240-0063987-008_09_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.97	Peak not integrated	nollel	04/12/17 14:25

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Batch Number: 274398

Lab Sample ID: STD9 240-274398/9 IC Client Sample ID:

Date Analyzed: 04/12/17 13:28 Lab File ID: 240-0063987-009_10_ECD_1. GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.99	Peak not integrated	nollel	04/12/17 14:26

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 443329

Lab Sample ID: STD1 490-443329/2 IC Client Sample ID:

Date Analyzed: 07/07/17 11:51 Lab File ID: 070717hp75_002dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/07/17 13:27
Propane, 2-methyl	1.94	Baseline Smoothing	browna	07/07/17 13:27

Lab Sample ID: STD2 490-443329/3 IC Client Sample ID:

Date Analyzed: 07/07/17 11:57 Lab File ID: 070717hp75_003dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/07/17 13:27
Ethene	0.67	Baseline Smoothing	browna	07/07/17 13:28
Ethane	0.69	Baseline Smoothing	browna	07/07/17 13:28
Acetylene (Surr)	0.78	Baseline Smoothing	browna	07/07/17 13:28
Propane, 2-methyl	1.95	Split Peak	browna	07/07/17 13:28

Lab Sample ID: STD3 490-443329/4 IC Client Sample ID:

Date Analyzed: 07/07/17 12:02 Lab File ID: 070717hp75_004dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Split Peak	browna	07/07/17 13:14

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 443329

Lab Sample ID: ICRT 490-443329/6 Client Sample ID:

Date Analyzed: 07/07/17 12:14 Lab File ID: 070717hp75_006dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/07/17 12:23
Ethene	0.67	Baseline Smoothing	browna	07/07/17 12:23
Ethane	0.69	Baseline Smoothing	browna	07/07/17 12:23
Acetylene (Surr)	0.78	Baseline Smoothing	browna	07/07/17 12:23
Propane	1.17	Baseline Smoothing	browna	07/07/17 13:22

Lab Sample ID: STD4 490-443329/12 IC Client Sample ID:

Date Analyzed: 07/07/17 14:03 Lab File ID: 070717hp75_012dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.56	Baseline Smoothing	browna	07/07/17 14:09
Ethene	0.66	Baseline Smoothing	browna	07/07/17 14:09
Ethane	0.69	Baseline Smoothing	browna	07/07/17 14:09
Acetylene (Surr)	0.78	Baseline Smoothing	browna	07/07/17 14:09

Lab Sample ID: ICV 490-443329/14 Client Sample ID:

Date Analyzed: 07/07/17 14:22 Lab File ID: 070717hp75_014dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/07/17 14:29
Ethene	0.67	Baseline Smoothing	browna	07/07/17 14:29
Ethane	0.69	Baseline Smoothing	browna	07/07/17 14:29
Acetylene (Surr)	0.79	Baseline Smoothing	browna	07/07/17 14:29

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 443459

Lab Sample ID: STD2 490-443459/3 IC Client Sample ID:

Date Analyzed: 07/07/17 11:57 Lab File ID: 070717hp75_003dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	0.78	Baseline Smoothing	browna	07/07/17 15:31

Lab Sample ID: ICRT 490-443459/6 Client Sample ID:

Date Analyzed: 07/07/17 12:14 Lab File ID: 070717hp75_006dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	0.78	Baseline Smoothing	browna	07/07/17 15:33

Lab Sample ID: STD4 490-443459/12 IC Client Sample ID:

Date Analyzed: 07/07/17 14:03 Lab File ID: 070717hp75_012dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	0.78	Baseline Smoothing	browna	07/07/17 15:34

Lab Sample ID: ICV 490-443459/14 Client Sample ID:

Date Analyzed: 07/07/17 14:22 Lab File ID: 070717hp75_014dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	0.79	Baseline Smoothing	browna	07/07/17 15:37

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 445410

Lab Sample ID: LCS 490-445410/8 Client Sample ID:

Date Analyzed: 07/17/17 12:29 Lab File ID: 071717hp75_008dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/17/17 14:08
Ethene	0.66	Baseline Smoothing	browna	07/17/17 14:08
Ethane	0.69	Baseline Smoothing	browna	07/17/17 14:08
Acetylene (Surr)	0.78	Baseline Smoothing	browna	07/17/17 14:08

Lab Sample ID: LCSD 490-445410/9 Client Sample ID:

Date Analyzed: 07/17/17 12:43 Lab File ID: 071717hp75_009dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/17/17 14:09

Lab Sample ID: 240-81987-2 Client Sample ID: SEMW-9I-070617

Date Analyzed: 07/17/17 12:57 Lab File ID: 071717hp75_010dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/17/17 14:09
Ethene	0.66	Baseline Smoothing	browna	07/17/17 14:09
Ethane	0.69	Baseline Smoothing	browna	07/17/17 14:09

Lab Sample ID: 240-81987-3 Client Sample ID: SEMW-8I-070617

Date Analyzed: 07/17/17 13:03 Lab File ID: 071717hp75_011dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propane	1.17	Incomplete Integration	jacobsj	07/17/17 18:59

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 445410

Lab Sample ID: CCV 490-445410/22 Client Sample ID:

Date Analyzed: 07/17/17 14:32 Lab File ID: 071717hp75_022dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.56	Baseline Smoothing	browna	07/17/17 14:39

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Analysis Batch Number: 445603

Lab Sample ID: 240-81987-2 Client Sample ID: SEMW-9I-070617

Date Analyzed: 07/18/17 11:06 Lab File ID: 071817hp75_008dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/18/17 11:11
Ethene	0.66	Baseline Smoothing	browna	07/18/17 11:11

Lab Sample ID: 240-81987-3 Client Sample ID: SEMW-8I-070617

Date Analyzed: 07/18/17 11:09 Lab File ID: 071817hp75_009dat-FID.d GC Column: RT-U-Bond ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	0.57	Baseline Smoothing	browna	07/18/17 11:14
Ethene	0.67	Baseline Smoothing	browna	07/18/17 11:14
Ethane	0.69	Baseline Smoothing	browna	07/18/17 11:14
Acetylene (Surr)	0.79	Baseline Smoothing	browna	07/18/17 11:15

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MT6500ICV_00038	12/14/17	06/14/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV1_00007	5 mL	Calcium	25000 ug/L
							Iron	12500 ug/L
							Magnesium	25000 ug/L
					MTTRICV3_00008	6 mL	Manganese	1500 ug/L
.MTTRICV1_00007	02/26/18	CPI, Lot 1095565			(Purchased Reagent)		Calcium	5000 mg/L
							Iron	2500 mg/L
							Magnesium	5000 mg/L
.MTTRICV3_00008	05/22/18	CPI, Lot 1099181			(Purchased Reagent)		Manganese	250 mg/L
MTAGSPIKEW_00073	12/08/18	06/13/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00007	2.5 mL	Ag	2500 ug/L
					MTTMHNO3_00120	50 mL	Nitric acid	50000000 ug/L
.MTAG_00007	12/08/18	HIGH PURITY STANDARDS, Lot 1713128			(Purchased Reagent)		Ag	1000 ug/mL
.MTTMHNO3_00120	05/25/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00065	09/29/17	06/24/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							As	100000 ug/L
							B	50000 ug/L
							Ba	100000 ug/L
							Be	2500 ug/L
							Cd	2500 ug/L
							Co	25000 ug/L
							Cr	10000 ug/L
							Cu	12500 ug/L
							Iron	50000 ug/L
							Manganese	25000 ug/L
							Ni	25000 ug/L
							Pb	25000 ug/L
							Se	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00119	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							As	2000 ug/mL
							B	1000 ug/mL
							Ba	2000 ug/mL
							Be	50 ug/mL
							Cd	50 ug/mL
							Co	500 ug/mL
							Cr	200 ug/mL
							Cu	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	1000 ug/mL
							Manganese	500 ug/mL
							Ni	500 ug/mL
							Pb	500 ug/mL
							Se	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00119	05/16/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00073	12/22/17	06/22/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00122	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Calcium	2500 mg/L
							K	2500 mg/L
							Magnesium	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00122	06/15/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Calcium	10000 ug/mL
							K	10000 ug/mL
							Magnesium	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00104	01/07/18	07/07/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00018	195 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
					MTICPCCV1_00019	5 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
.MTICPCCV1_00018	05/10/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
.MTICPCCV1_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
MTICPICSABW_00014	10/11/17	04/11/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							As	1000 ug/L
							B	500 ug/L
							Ba	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Be	500 ug/L
							Calcium	500000 ug/L
							Cd	1000 ug/L
							Co	500 ug/L
							Cr	500 ug/L
							Cu	500 ug/L
							Iron	200000 ug/L
							K	10000 ug/L
							Li	500 ug/L
							Magnesium	500000 ug/L
							Manganese	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Pb	1000 ug/L
							Se	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Ag	1000 ug/L
							Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							As	10000 ug/L
							B	5000 ug/L
							Ba	5000 ug/L
							Be	5000 ug/L
							Calcium	5000000 ug/L
							Cd	10000 ug/L
							Co	5000 ug/L
							Cr	5000 ug/L
							Cu	5000 ug/L
							Iron	2000000 ug/L
							K	100000 ug/L
							Li	5000 ug/L
							Magnesium	5000000 ug/L
							Manganese	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Pb	10000 ug/L
							Se	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Ag	10000 ug/L
							Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTTMHCL_00162	06/28/19	JT Baker(Avantor), Lot 0000162118			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00123	06/26/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00048	12/05/17	06/05/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Calcium	5000 ug/L
							Iron	200 ug/L
							Magnesium	5000 ug/L
							Manganese	15 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Calcium	100000 ug/L
							Iron	4000 ug/L
							Magnesium	100000 ug/L
							Manganese	300 ug/L
MTTRICSAW_00034	09/13/17	03/13/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00014	100 mL	Al	500000 ug/L
							Calcium	500000 ug/L
							Iron	200000 ug/L
							Magnesium	500000 ug/L
.MTTRICSA_00014	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
vm100is_stk_00033	11/24/17	05/24/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00026	12/16/17	06/16/17	MEOH, Lot 147462	100 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00027	07/31/21	Restek, Lot A0120212			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00289	07/14/17	07/07/17	MEOH, Lot na	4 mL	vm50ss_stk_00074	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00074	12/15/17	06/15/17	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00206	07/16/17	07/09/17	MEOH, Lot na	4 mL	VMACROLSTD_00051	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00051	07/31/17	07/01/17	MEOH, Lot 0000147462	20 mL	VM568720_00020	250 uL	Acrolein	250 ug/mL
..VM568720_00020	07/31/17		restek, Lot A0124374		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASGW_00217	07/16/17	07/09/17	MEOH, Lot NA	4 mL	VMFASG_00060	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00060	07/24/17	06/24/17	MEOH, Lot 0000147462	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00210	07/16/17	07/09/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00001	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmrgas_00207	07/16/17	07/09/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00243	07/16/17	07/09/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00002	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569723_00003	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00010	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00001	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00002	03/31/18		restek, Lot A0109994		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569723_00003	07/31/18		restek, Lot A0112895		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00010	09/30/17		Restek, Lot A0125716		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00243	07/16/17	07/09/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM571992_00001	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00001	12/31/18	Restek, Lot A0123711			(Purchased Reagent)		Xylenes, Total	5000 ug/mL
WCICCALSOLN_00282	05/12/17	04/12/17	ELUENT, Lot 1847588	20 mL	WCICSOLNA1_00016	1.6 mL	Bromide	40 mg/L
							Chloride	200 mg/L
							Fluoride	10 mg/L
							Nitrate as N	10 mg/L
							Sulfate	200 mg/L
					WCICSOLNB1_00015	1.6 mL	Nitrite as N	10 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICCCV_00775	07/12/17	07/05/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA1_00016	1 mL	Bromide	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB1_00015	1 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICLCS_00603	04/21/17	03/21/17	MOHMWATER, Lot 022117	50 mL	WCICSOLNA2_00017	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00017	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00017	11/30/17	High Purity Standards, Lot 1632824			(Purchased Reagent)		Bromide	100 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
.WCICSOLNB2_00017	11/30/17	High Purity Standards, Lot 1632825			(Purchased Reagent)		Nitrite as N	25 ug/mL
WCICLCS_00613	07/12/17	07/05/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA2_00017	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00017	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00017	11/30/17	High Purity Standards, Lot 1632824			(Purchased Reagent)		Bromide	100 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
.WCICSOLNB2_00017	11/30/17	High Purity Standards, Lot 1632825			(Purchased Reagent)		Nitrite as N	25 ug/mL
WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCPHENOMINER_00017	07/31/19	PHENOVA-WIBBY, Lot 869-08			(Purchased Reagent)		Alkalinity	377 mg/L
WCPHENOVSOLID_00022	07/31/19	PHENOVA- WIBBY, Lot 8169-09			(Purchased Reagent)		Total Dissolved Solids	242 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
RSK_8COMP_00007	01/30/18		Airgas, Lot 126-400488621-1		(Purchased Reagent)		Butane	23.8 ug/mL
							Ethane	12.3 ug/mL
							Ethene	11.5 ug/mL
							Methane	6.69 ug/mL
							Propane	18 ug/mL
							Propane, 2-methyl	23.8 ug/mL
RSK_ACE_00004	06/13/19		Airgas, Lot 54-124439226-1		(Purchased Reagent)		Acetylene	10.8 ug/mL
RSK_sur_ACE_00004	06/13/19		air liquide, Lot 54-124439226-1		(Purchased Reagent)		Acetylene (Surr)	10.8 ug/mL
RSK_VER 8COMP_00001	02/17/18		Airgas, Lot 126-400491844-1		(Purchased Reagent)		Butane	23.8 ug/mL
							Ethane	12.3 ug/mL
							Ethene	11.5 ug/mL
							Methane	6.69 ug/mL
							Propane	18 ug/mL

Reagent

MTAG_00007

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

Rec'd 6-12-17 KW

Certified Reference Material

ISO Guide 34:2009 (RMP) Accreditation Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation Certificate Number AT-1529

Product Description:

Silver

Product Number: **100051-1**
Lot Number: **1713128**
Matrix: 2% (v/v) HNO_3

Certified Value:

Element	(µg/mL)	SRM ID	SRM Lot#
Silver	1000 ± 3	3151	160729

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section d

Uncertified Values:

Density: 1.010 g/mL ± 0.002 g/mL @ 21.2°C

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in µg/L.

Ag		M	Cu	<	0.02	Li	<	0.5	Rb	<	0.02	Th	<	0.02
Al	<	0.05	Dy	<	0.02	Lu	<	0.02	Re	<	0.02	Ti	<	0.02
As	<	0.05	Er	<	0.02	Mg	<	0.1	Rh	<	0.02	Tl	<	0.02
Au	<	0.02	Eu	<	0.02	Mn	<	0.05	Ru	<	0.1	Tm	<	0.02
B	<	1	Fe	<	1	Mo	<	0.02	Sb	<	0.02	U	<	0.05
Ba	<	0.02	Ga	<	0.02	Na	<	3	Sc	<	0.02	V	<	0.05
Be	<	0.02	Gd	<	0.02	Nb	<	0.02	Se	<	0.5	W	<	0.02
Bi	<	0.02	Ge	<	0.1	Nd	<	0.02	Si		45	Y	<	0.02
Ca	<	1	Hf	<	0.02	Ni	<	0.02	Sm	<	0.02	Yb	<	0.02
Cd	<	0.02	Ho	<	0.02	Os	<	0.02	Sn	<	0.5	Zn	<	0.02
Ce	<	0.02	In	<	0.02	Pb	<	0.05	Sr	<	0.02	Zr	<	0.02
Co	<	0.05	Ir	<	0.02	Pd	<	0.02	Ta	<	0.02			
Cr	<	0.05	K	<	1	Pr	<	0.02	Tb	<	0.02			
Cs		4	La	<	0.02	Pt	<	0.02	Te	<	0.02			

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for eighteen months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: **6/8/2017**
Expire Date: **December 08, 2018**
Certificate Issue Date: **May 11, 2017**

Moven Mututuvari

Moven Mututuvari, Ph. D, Laboratory Manager

Preparation Information:

This standard is prepared using **99.992%** pure **silver metal** which was purchased from a qualified vendor per ISO 9001:2008 guidelines and assayed by analytical methods for conformity prior to use. This standard was manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product. If during the period of validity, a recall is instituted due to substantial changes in the stability of this product, the purchaser will be notified.

Homogeneity:

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO Guide 34 and ISO Guide 35.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
   The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
   The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
   The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
   The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards:**
   The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If an SRM is not availabe, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High-Purity Standards.

Reagent

MTICPCCV1_00018

RECD 5-10-17 ICD

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TA-CCV1
Lot Number:	M2-MEB658053
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	500 000 µg/L ea: Calcium, Potassium, Magnesium, Sodium, 250 000 µg/L ea: Aluminum, Iron, 50 000 µg/L ea: Strontium, Boron, Lithium, 20 000 µg/L ea: Manganese, Nickel, Barium, Beryllium, Cobalt, Chromium, Copper, Vanadium, Zinc, 10 000 µg/L ea: Thallium, 5 000 µg/L ea: Cadmium, Arsenic, Lead, Selenium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250 000.00 ± 1 100.00 µg/L	Arsenic, As	5 000 ± 34 µg/L
Barium, Ba	20 000.0 ± 80.0 µg/L	Beryllium, Be	20 000.0 ± 90.0 µg/L
Boron, B	50 010.0 ± 300.0 µg/L	Cadmium, Cd	5 001 ± 29 µg/L
Calcium, Ca	500 000.00 ± 1 900.00 µg/L	Chromium, Cr	20 000.0 ± 120.0 µg/L
Cobalt, Co	20 000.0 ± 90.0 µg/L	Copper, Cu	20 000.0 ± 80.0 µg/L
Iron, Fe	250 000.00 ± 1 000.00 µg/L	Lead, Pb	5 001 ± 25 µg/L
Lithium, Li	50 000.0 ± 170.0 µg/L	Magnesium, Mg	500 000.00 ± 2 000.00 µg/L
Manganese, Mn	20 010.0 ± 80.0 µg/L	Nickel, Ni	20 010.0 ± 90.0 µg/L
Potassium, K	500 000.00 ± 1 800.00 µg/L	Selenium, Se	5 000 ± 25 µg/L
Sodium, Na	500 000.00 ± 1 800.00 µg/L	Strontium, Sr	50 010.0 ± 200.0 µg/L
Thallium, Tl	10 000.0 ± 50.0 µg/L	Vanadium, V	20 000.0 ± 80.0 µg/L
Zinc, Zn	20 000.0 ± 80.0 µg/L		

Certified Density: 1.032 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	070222
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr	ICP Assay	3112a	030730Cr3
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
Tl	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\,(u_{char\ a})^2 + (w_b)^2\,(u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 05, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 05, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 5-10-17 ICD

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Brenda Francis
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

MTICPCCV1_00019

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

Rec'd 6.28.17 ku

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TA-CCV1
Lot Number:	M2-MEB658053
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	500 000 µg/L ea: Calcium, Potassium, Magnesium, Sodium,
	250 000 µg/L ea: Aluminum, Iron,
	50 000 µg/L ea: Strontium, Boron, Lithium,
	20 000 µg/L ea: Manganese, Nickel, Barium, Beryllium, Cobalt, Chromium, Copper, Vanadium, Zinc,
	10 000 µg/L ea: Thallium,
	5 000 µg/L ea: Cadmium, Arsenic, Lead, Selenium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250 000.00 ± 1 100.00 µg/L	Arsenic, As	5 000 ± 34 µg/L
Barium, Ba	20 000.0 ± 80.0 µg/L	Beryllium, Be	20 000.0 ± 90.0 µg/L
Boron, B	50 010.0 ± 300.0 µg/L	Cadmium, Cd	5 001 ± 29 µg/L
Calcium, Ca	500 000.00 ± 1 900.00 µg/L	Chromium, Cr	20 000.0 ± 120.0 µg/L
Cobalt, Co	20 000.0 ± 90.0 µg/L	Copper, Cu	20 000.0 ± 80.0 µg/L
Iron, Fe	250 000.00 ± 1 000.00 µg/L	Lead, Pb	5 001 ± 25 µg/L
Lithium, Li	50 000.0 ± 170.0 µg/L	Magnesium, Mg	500 000.00 ± 2 000.00 µg/L
Manganese, Mn	20 010.0 ± 80.0 µg/L	Nickel, Ni	20 010.0 ± 90.0 µg/L
Potassium, K	500 000.00 ± 1 800.00 µg/L	Selenium, Se	5 000 ± 25 µg/L
Sodium, Na	500 000.00 ± 1 800.00 µg/L	Strontium, Sr	50 010.0 ± 200.0 µg/L
Thallium, Tl	10 000.0 ± 50.0 µg/L	Vanadium, V	20 000.0 ± 80.0 µg/L
Zinc, Zn	20 000.0 ± 80.0 µg/L		

Certified Density: 1.032 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	070222
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr	ICP Assay	3112a	030730Cr3
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
Tl	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 05, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 05, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 7-7-17 KL

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

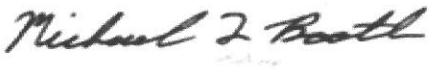
Certificate Prepared By:

Brenda Francis
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

MTICPICSAB1_00006

RECD 12-8-16

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TA-ICSAB1
Lot Number:	K2-MEB653538
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 000 µg/L ea:

Aluminum,	Calcium,	Magnesium,
2 000 000 µg/L ea:		
Iron,		
100 000 µg/L ea:		
Potassium,	Sodium,	
15 000 µg/L ea:		
Strontium,		
10 000 µg/L ea:		
Arsenic,	Cadmium,	Nickel,
Lead,	Selenium,	Thallium,
Zinc,		
5 000 µg/L ea:		
Boron,	Barium,	Beryllium,
Cobalt,	Chromium+3,	Copper,
Lithium,	Manganese,	Vanadium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	5 000 000.000 ± 23 000.000 µg/L	Arsenic, As	10 000.0 ± 70.0 µg/L
Barium, Ba	5 000 ± 25 µg/L	Beryllium, Be	5 001 ± 25 µg/L
Boron, B	5 000 ± 34 µg/L	Cadmium, Cd	10 000.0 ± 60.0 µg/L
Calcium, Ca	5 000 000.000 ± 19 000.000 µg/L	Chromium+3, Cr3	5 000 ± 25 µg/L
Cobalt, Co	5 001 ± 22 µg/L	Copper, Cu	5 000 ± 29 µg/L
Iron, Fe	2 000 000.000 ± 8 000.000 µg/L	Lead, Pb	10 000.0 ± 50.0 µg/L
Lithium, Li	5 000 ± 18 µg/L	Magnesium, Mg	5 000 000.000 ± 20 000.000 µg/L
Manganese, Mn	4 999 ± 25 µg/L	Nickel, Ni	10 000.0 ± 60.0 µg/L
Potassium, K	100 000.00 ± 400.00 µg/L	Selenium, Se	10 000.0 ± 70.0 µg/L
Sodium, Na	100 000.00 ± 400.00 µg/L	Strontium, Sr	15 000.0 ± 90.0 µg/L
Thallium, Tl	10 000.0 ± 70.0 µg/L	Vanadium, V	5 000 ± 29 µg/L
Zinc, Zn	10 000.0 ± 60.0 µg/L		

Certified Density: 1.100 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	ICP Assay	3112a	030730Cr3
Cr3	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
Tl	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2019**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 12/8/16

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

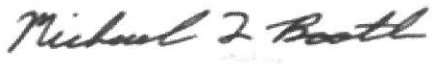
Certificate Prepared By:

Maurice Harris
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

MTICPICSAB2_00006

Recd 12-8-16 KD

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TA-ICSAB2
Lot Number:	K2-MEB653539
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	100 000 µg/L ea: Silicon, 10 000 µg/L ea: Silver, Molybdenum, Antimony, 5 000 µg/L ea: Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10 000.0 ± 70.0 µg/L	Molybdenum, Mo	10 000.0 ± 60.0 µg/L
Silicon, Si	100 000.00 ± 600.00 µg/L	Silver, Ag	10 000.0 ± 70.0 µg/L
Tin, Sn	5 000 ± 38 µg/L	Titanium, Ti	5 000 ± 29 µg/L

Certified Density: 1.025 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999c	999c
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	061229 Sb
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2019**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 12/8/16

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

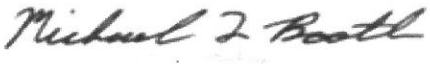
Certificate Prepared By:

Maurice Harris
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

MTICPSPIKE1A_00011

KEC 10-26-16 ICD

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Product Description:

Name:	ICP Spike 1
Part Number:	**SM-606-101 Solution A**
Lot Number:	**1626724**
Matrix:	5% HNO_3
Purity:	99.99% - 99.9999%

Certified Values:

Element	(µg/mL)	SRM ID	SRM Lot#	Element	(µg/mL)	SRM ID	SRM Lot#
Al	2000 ± 10	3101a	140903	Fe	1000 ± 5	3126a	140812
As	2000 ± 20	3103a	100818	Pb	500 ± 3	3128	101026
Ba	2000 ± 12	3104a	140909	Mn	500 ± 5	3132	050429
Be	50.0 ± 0.5	3105a	090514	Ni	500 ± 3	3136	120619
B	1000 ± 5	3107	110830	Se	2000 ± 20	3149	100901
Cd	50.0 ± 0.5	3108	130116	Tl	2000 ± 10	3158	993012
Cr	200 ± 1	3112a	030730	V	500 ± 3	3165	992706
Co	500 ± 3	3113	000630	Zn	500 ± 3	3168a	120629
Cu	250.0 ± 1.3	3114	121207				

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

* Refer to Traceability Information, Section d

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date:	September 23, 2016
Shipped Date:	**September 29, 2016**
Expiration Date:	**September 29, 2017**
Certificate Issue Date:	September 28, 2016

Moven Mutuvari

Moven Mutuvari PhD., Laboratory Manager

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials and manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If a SRM is not available, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Reagent

MTICPSPIKEB_00010

REC 10-26-16 KD

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Product Description:

Name:	ICP Spike 1
Part Number:	**SM-606-101 Solution B**
Lot Number:	**1626731**
Matrix:	5% HNO_3 + 0.5% HF
Purity:	99.98% - 99.9999%

Certified Values:

Element	(µg/mL)	SRM ID	SRM Lot#	Element	(µg/mL)	SRM ID	SRM Lot#
Sb	500 ± 3	3102a	140911	Sn	2000 ± 12	3161a	140914
Mo	1000 ± 6	3134	130418	Ti	1000 ± 6	3162a	130925

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section d

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date:	September 23, 2016
Shipped Date:	**September 29, 2016**
Expiration Date:	**September 29, 2017**
Certificate Issue Date:	September 28, 2016

Moven Mututuvari

Moven Mututuvari PhD., Laboratory Manager

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials and manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If a SRM is not available, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Reagent

MTICPSpikeOdd_00007

REC 10-26-16

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Product Description:

Name:	ICP Spike Odds
Part Number:	**SM-606-121**
Lot Number:	**1626736**
Matrix:	2% HNO_3
Purity:	99.999% - 99.9999%

Certified Values:

Element	(µg/mL)	SRM ID	SRM Lot#	Element	(µg/mL)	SRM ID	SRM Lot#
Li	1000 ± 6	3129a	100714	Sr	1000 ± 5	3153a	990906
Si	1000 ± 10	3150	130912				

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section d

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date:	September 23, 2016
Shipped Date:	**September 29, 2016**
Expiration Date:	**September 29, 2017**
Certificate Issue Date:	September 28, 2016

Moven Mututuvari
Moven Mututuvari PhD., Laboratory Manager

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials and manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If a SRM is not available, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Reagent

MTTRCAL2_00016

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Rec'd 1-12-17 KM

Certificate of Analysis

Certified Reference Material

ISO Guide 34:2009 (RMP) Accreditation Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation Certificate Number AT-1529

Product Description:

Name:	ICP Analytical Mixture 15
Part Number:	**ICP-AM-15**
Lot Number:	**1625030**
Matrix:	5% HNO_3
Purity:	99.98% - 99.999%

Certified Values:

Element	(µg/mL)	SRM ID	SRM Lot#	Element	(µg/mL)	SRM ID	SRM Lot#
Ca	10000 ± 60	3109a	130213	K	10000 ± 100	3141a	140813
Mg	10000 ± 60	3131a	140110	Na	10000 ± 60	3152a	120715

Certified values are based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

* Refer to Traceability Information, Section d

Uncertified Values:

Density: 1.132 g/mL ± 0.002 g/mL @ 23.6°C

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date:	September 26, 2016
Shipped Date:	**1/6/2017**
Expire Date:	**January 06, 2018**
Certificate Issue Date:	October 3, 2016

Moven Mutuvari

Moven Mutuvari PhD., Laboratory Manager

Preparation Information:

The Certified Reference Material (CRM) is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials and manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If a SRM is not availabe, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Reagent

MTTRCRI6010C_00015

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

Rec'd 12-8-16 ku

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CRIC-REV2
Lot Number:	K2-MEB653408
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	100 000 µg/L ea: Calcium, Potassium, Magnesium, Sodium, 10 000 µg/L ea: Silicon, 4 000 µg/L ea: Aluminum, Barium, Iron, 2 000 µg/L ea: Boron, Tin, 1 000 µg/L ea: Lithium, Strontium, Titanium, Zinc, 800 µg/L ea: Molybdenum, Nickel, 400 µg/L ea: Copper, Antimony, Selenium, Thallium, 300 µg/L ea: Arsenic, Manganese, 200 µg/L ea: Silver, Cobalt, Chromium+3, Lead, Vanadium, 100 µg/L ea: Beryllium, Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	3 999 ± 24 µg/L	Antimony, Sb	400.0 ± 3.1 µg/L
Arsenic, As	299.9 ± 2.7 µg/L	Barium, Ba	4 000 ± 20 µg/L
Beryllium, Be	100.0 ± 0.7 µg/L	Boron, B	2 000 ± 13 µg/L
Cadmium, Cd	100.0 ± 0.9 µg/L	Calcium, Ca	100 000.00 ± 400.00 µg/L
Chromium+3, Cr3	200.0 ± 1.2 µg/L	Cobalt, Co	200.0 ± 1.1 µg/L
Copper, Cu	400.0 ± 1.7 µg/L	Iron, Fe	4 000 ± 20 µg/L
Lead, Pb	199.9 ± 1.0 µg/L	Lithium, Li	1 000 ± 6 µg/L
Magnesium, Mg	100 000.00 ± 400.00 µg/L	Manganese, Mn	300.0 ± 1.4 µg/L
Molybdenum, Mo	800 ± 5 µg/L	Nickel, Ni	799 ± 4 µg/L
Potassium, K	100 000.00 ± 400.00 µg/L	Selenium, Se	400.1 ± 3.6 µg/L
Silicon, Si	10 000.0 ± 70.0 µg/L	Silver, Ag	200.1 ± 1.6 µg/L
Sodium, Na	100 000.00 ± 400.00 µg/L	Strontium, Sr	1 001 ± 6 µg/L
Thallium, Tl	400.0 ± 3.4 µg/L	Tin, Sn	2 000 ± 15 µg/L
Titanium, Ti	1 000 ± 7 µg/L	Vanadium, V	200.0 ± 1.1 µg/L
Zinc, Zn	1 000 ± 6 µg/L		

Certified Density: 1.027 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	ICP Assay	3112a	030730Cr3
Cr3	Calculated		See Sec. 4.2
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
Li	ICP Assay	3129a	000505
Li	Calculated		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sb	ICP Assay	3102A	061229
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Si	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Ti	ICP Assay	3162a	060808
Ti	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629

Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 16, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 16, 2019**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Maurice Harris
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

MTTRICSA_00014

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).

ACCREDITED Testing Laboratory Certificate 863.01 — ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-ICS-A
Lot Number:	J2-MEB572053
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Al, Ca, Mg, 2 000 µg/mL ea: Fe

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	5 000 ± 25 µg/mL	Calcium, Ca	5 000 ± 23 µg/mL
Iron, Fe	2 000 ± 9 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL

Certified Density: 1.085 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$ 2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000870	M	Eu	<	0.000108	O	Na		0.040145	M	Se	<	0.003263	M	Zn		0.024800
s	Al	<		s	Fe	<		M	Nb	<	0.000435	O	Si		0.108500	M	Zr	<	0.001522
M	As	<	0.003915	M	Ga	<	0.000108	M	Nd	<	0.001087	M	Sm	<	0.000108				
M	Au	<	0.000108	M	Gd	<	0.000108	O	Ni	<	0.010850	M	Sn	<	0.000217				
O	B	<	0.021700	O	Ge	<	0.032550	M	Os	<	0.000108	O	Sr		0.024955				
M	Ba	<	0.001305	M	Hf	<	0.000217	O	P	<	0.108500	M	Ta	<	0.000108				
M	Be	<	0.000326	M	Hg	<	0.000651	M	Pb		0.002936	M	Tb	<	0.000108				
M	Bi	<	0.000217	M	Ho	<	0.000108	M	Pd	<	0.000217	M	Te	<	0.001305				
s	Ca	<		M	In	<	0.000435	M	Pr	<	0.000435	M	Th	<	0.000108				
M	Cd	<	0.000217	M	Ir	<	0.000108	M	Pt	<	0.000108	O	Ti	<	0.001627				
M	Ce	<	0.001740	O	K		0.014105	M	Rb	<	0.001522	M	Tl	<	0.000108				
O	Co	<	0.010850	M	La	<	0.001305	M	Re	<	0.000435	M	Tm	<	0.000108				
M	Cr		0.022842	O	Li		0.005533	M	Rh	<	0.000652	M	U	<	0.000108				
M	Cs	<	0.001305	M	Lu	<	0.000435	M	Ru	<	0.000108	M	V	<	0.001087				
O	Cu	<	0.006835	s	Mg	<		O	S		0.455700	M	W	<	0.000108				
M	Dy	<	0.000108	M	Mn		0.009898	M	Sb	<	0.000435	M	Y	<	0.000108				
M	Er	<	0.000108	M	Mo	<	0.003915	O	Sc	<	0.000868	M	Yb	<	0.000108				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 02, 2015

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 02, 2018

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

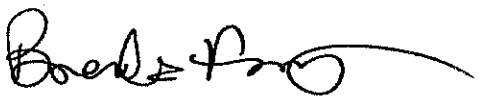
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

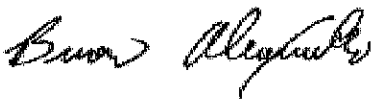
Certificate Prepared By:

Brenda Francis
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MTTRICV1_00007

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-080925JC01	1095565	26-Feb-2018	2% HNO_3	G34-4400-080925JC01, 100 mL mg/L in 2% HNO_3

Additional Information:

Date Received: 9-7-16 KU

Container: 4 oz (125 mL) Narrow Mouth, HDPE clean

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this CRM. This CRM has been confirmed by inductively coupled plasma optical emission spectrometry (ICP-OES) using an internally developed method against an independent source which is directly traceable to the NIST SRM's listed below.
The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2.

Element	Symbol	CAS No	SRM No	NIST Lot No	Source Lot No	Purity %	Concentration mg/L	Uncertainty ± mg/L
Calcium	Ca	7440-70-2	3109	050825	7006.117.2P	99.999	5000	14.15
Potassium	K	7440-09-7	3141	051220	7013.409.5P	99.999	5000	14.15
Magnesium	Mg	7439-95-4	3131	050302	7016.409.1P	99.99	5000	14.15
Sodium	Na	7440-23-5	3152	010728	7020.46.7P	99.999	5000	14.15
Aluminum	Al	7429-90-5	3101	060502	7001.29.1P	99.9999	2500	7.08
Iron	Fe	7439-89-6	3126	051031	7012.409.2P	99.99	2500	7.08

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-080925JC01	1095565	26-Feb-2018	2% HNO_3	G34-4400-080925JC01, 100 mL mg/L in 2% HNO_3

Intended Uses:

This Certified Reference material, CRM, is intended for use as a calibration standard or a quality control standard for Inorganic Speetrometry Equipment such as ICP-OES, ICP-MS, AA, and XRF, It may aslo be used for various USEPA and ASTM methods.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with NIST traceable weights (NIST Test Number 822/264157-00). Only calibrated Class A volumetric glassware was used to prepare this standard. Sub-boiled distilled acid and 18 megaohm deionized water were used to stabilize the product. All raw materials were checked for stoichiometry and purity prior to use. This standard has been spectrometrically certified by an independent source, which is directly traceable to NIST.

Packaging and Storage:

The Solution should be kept trightly capped and stored under normal laboratory conditions. Pre-cleaned polyethlene bottles are used to package this material. Special storage information: Ambient

Glassware Calibration:

Only Class A glassware is used in the manufacture and quality control of Standards. All Glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used perform daily checks on balances calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to the National Institute of Standards and Technology (NIST). Balances are checked daily in accordance to in house procedure O2-LB-004. Balances are calibrated annually by an ISO 17025 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-10 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC Guide 17025:2005 and ISO Guide 34:2009. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous information:

Refer to MSDS

CPI INTERNATIONAL

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-080925JC01	1095565	26-Feb-2018	2% HNO_3	G34-4400-080925JC01, 100 mL mg/L in 2% HNO_3

Calculation of Uncertainty

The following equations are used to calculate the value of the expanded uncertainty:
$U=ku_c$ U=Expanded Uncertainty, k= the coverage factor at the 95% confidence level, k=2, u_c = the combined uncertainty
$u_c = \sqrt{\sum u_i^2}$ where u_i are the individual uncertainty components for raw material, transportation, homogeneity, and shelf life.

Expiration Information:

The Stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. This standard is guaranteed until the expiration date listed above.

Accreditation:

This standard was manufactured by an ISO 17025 Chemical Testing Lab (Certificate number 3031.01) and ISO Guide 34 Reference Material Producer (RMP) Certificate number 3031.02 accredited by The American Association of Laboratory Accreditation (A2LA). Manufacturer's Quality System audited and registered by NSF-ISR to ISO 9001:2008 (Certificate number IZ391-IS4).

Manufactured By:

Shane Overcash
Manufacture Date: 8/25/2016

Certified By:

Christy Lane
Certified Date:8/25/2016

Released By:

Mark Filla
Original Issue Date: 8/26/2016

Reagent

MTTRICV3_00008

CPI INTERNATIONAL

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-090825JC03	1099181	22-May-2018	2% HNO3 + Tr HF	ISO Guide 34 - Z-G34-4400-090825JC03, 100 mL mg/L in 2% HNO_3 + Tr HF

Additional Information:

Date Received: 12/5/16 KD

Container: 4 oz (125 mL) Narrow Mouth, LDPE clean

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this CRM. This CRM has been confirmed by inductively coupled plasma optical emission spectrometry (ICP-OES) using an internally developed method against an independent source which is directly traceable to the NIST SRM's listed below.
The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2.

Element	Symbol	CAS No	SRM No	NIST Lot No	Source Lot No	Purity %	Concentration mg/L	Uncertainty ± mg/L
Barium	Ba	7440-39-3	3104	070222	7004.29.3P	99.997	250	0.87
Beryllium	Be	7440-41-7	3105	892707	7005.409.1P	99.996	250	0.87
Chromium	Cr	7440-47-3	3112	030730	7009.409.2P	99.99	250	0.87
Cobalt	Co	7440-48-4	3113	000630	7008.409.1P	99.999	250	0.87
Copper	Cu	7440-50-8	3114	011017	7011.409.1P	99.9999	250	0.87
Manganese	Mn	7439-96-5	3132	050429	7017.46.5P	99.95	250	0.87
Molybdenum	Mo	7439-98-7	3134	891307	7018.29.3P	99.999	250	0.87
Nickel	Ni	7440-02-0	3136	000612	7021.409.1P	99.995	250	0.87
Vanadium	V	7440-62-2	3165	992706	7036.409.2P	99.999	250	0.87
Zinc	Zn	7440-66-6	3168	080123	7037.409.1P	99.9998	250	0.87

CPI INTERNATIONAL

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-090825JC03	1099181	22-May-2018	2% HNO3 + Tr HF	ISO Guide 34 - Z-G34-4400-090825JC03, 100 mL mg/L in 2% HNO_3 + Tr HF

Intended Uses:

This Certified Reference material, CRM, is intended for use as a calibration standard or a quality control standard for Inorganic Speetrometry Equipment such as ICP-OES, ICP-MS, AA, and XRF, It may aslo be used for various USEPA and ASTM methods.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with NIST traceable weights (NIST Test Number 822/264157-00). Only calibrated Class A volumetric glassware was used to prepare this standard. Sub-boiled distilled acid and 18 megaohm deionized water were used to stabilize the product. All raw materials were checked for stoichiometry and purity prior to use. This standard has been spectrometrically certified by an independent source, which is directly traceable to NIST.

Packaging and Storage:

The Solution should be kept trightly capped and stored under normal laboratory conditions. Pre-cleaned polyethlene bottles are used to package this material. Special storage information: Ambient

Glassware Calibration:

Only Class A glassware is used in the manufacture and quality control of Standards. All Glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used perform daily checks on balances calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to the National Institute of Standards and Technology (NIST). Balances are checked daily in accordance to in house procedure O2-LB-004. Balances are calibrated annually by an ISO 17025 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-10 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC Guide 17025:2005 and ISO Guide 34:2009. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous information:

Refer to MSDS

CPI INTERNATIONAL

USA

5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe

P.O. Box 2704 P: +31 20 638 05 97
1000 CS Amsterdam F: +31 20 420 28 36
The Netherlands

Certificate of Analysis

Rev 0

Comment:

Catalog No:	Lot No:	Expiration Date:	Matrix:	Description:
G34-4400-090825JC03	1099181	22-May-2018	2% HNO3 + Tr HF	ISO Guide 34 - Z-G34-4400-090825JC03, 100 mL mg/L in 2% HNO_3 + Tr HF

Calculation of Uncertainty

The following equations are used to calculate the value of the expanded uncertainty:
$U=ku_c$ U=Expanded Uncertainty, k= the coverage factor at the 95% confidence level, k=2, u_c = the combined uncertainty
$u_c = \sqrt{\sum u_i^2}$ where u_i are the individual uncertainty components for raw material, transportation, homogeneity, and shelf life.

Expiration Information:

The Stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. This standard is guaranteed until the expiration date listed above.

Accreditation:

This standard was manufactured by an ISO 17025 Chemical Testing Lab (Certificate number 3031.01) and ISO Guide 34 Reference Material Producer (RMP) Certificate number 3031.02 accredited by The American Association of Laboratory Accreditation (A2LA). Manufacturer's Quality System audited and registered by NSF-ISR to ISO 9001:2008 (Certificate number IZ391-IS4).

Manufactured By:

Chelsea Breen
Chemist
Manufacture Date: 11/18/2016

Certified By:

Christy Lane
Chemist
Certified Date: 11/18/2016

Released By:

Mark Filla
Chemist
Original Issue Date: 11/18/2016

Reagent

vm30241_00006

Rec: 7/12/16 (20)
VM30241-00006

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30241 **Lot No.:** A0117358

Description : 8260A Internal Standard Mix

8260A Internal Standard Mix 2,500 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Fluorobenzene **CAS #** 462-06-6 (Lot BCBK8171V) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL		Gravimetric Unstressed Stressed
2	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-23926) **Purity** 99%	2,500.1 µg/mL	+/- 14.5358 µg/mL +/- 140.1781 µg/mL +/- 143.4581 µg/mL		Gravimetric Unstressed Stressed
3	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	2,500.7 µg/mL	+/- 14.5393 µg/mL +/- 140.2118 µg/mL +/- 143.4925 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00024

VM567650_00024

Rec: 9/16/15

RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0112455

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane	2,509.6 µg/mL	+/- 14.5910 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022012)		+/- 28.2993 µg/mL	Unstressed
	Purity 99%		+/- 32.5644 µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,507.5 µg/mL	+/- 14.5788 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 14C-191)		+/- 28.2757 µg/mL	Unstressed
	Purity 99%		+/- 32.5371 µg/mL	Stressed
3	Toluene-d8	2,509.0 µg/mL	+/- 14.5875 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-26282)		+/- 28.2926 µg/mL	Unstressed
	Purity 99%		+/- 32.5566 µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,506.0 µg/mL	+/- 14.5701 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 28.2587 µg/mL	Unstressed
	Purity 99%		+/- 32.5176 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00027

VM567650-00027 Rec: 4/10/17 (39)

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0120212

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane	2,521.3 µg/mL	+/- 14.6591 µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 032015)		+/- 141.3668 µg/mL	Unstressed
	Purity 99%		+/- 144.6746 µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,523.7 µg/mL	+/- 14.6730 µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 14C-191)		+/- 141.5014 µg/mL	Unstressed
	Purity 99%		+/- 144.8123 µg/mL	Stressed
3	Toluene-d8	2,523.6 µg/mL	+/- 14.6724 µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-26623)		+/- 141.4957 µg/mL	Unstressed
	Purity 99%		+/- 144.8066 µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,510.9 µg/mL	+/- 14.5986 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 140.7837 µg/mL	Unstressed
	Purity 99%		+/- 144.0778 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM568720_00020

Rec: 3/14/17

VM568720_00020

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0124374

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,774.0 µg/mL	+/- 116.0449	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot A160912JLM)		+/- 634.0648	µg/mL	Unstressed
	Purity 99%		+/- 737.0164	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM569721_00001

VM569721_0000 Rec: 9/16/15

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0110400

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,506.8 µg/mL	+/- 73.2301 µg/mL +/- 665.6407 µg/mL +/- 666.3747 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,504.8 µg/mL	+/- 73.2184 µg/mL +/- 665.5343 µg/mL +/- 666.2681 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,509.2 µg/mL	+/- 73.2441 µg/mL +/- 665.7684 µg/mL +/- 666.5025 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBN7380V) **Purity** 99%	12,501.6 µg/mL	+/- 73.1996 µg/mL +/- 665.3640 µg/mL +/- 666.0976 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00001

Rec: 3/30/15
VM569721S_00001

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.SEC **Lot No.:** A0108157

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1.SEC (Lot 0902033) **Purity** 99%	12,504.0 µg/mL	+/- 73.2137 µg/mL +/- 665.4917 µg/mL +/- 666.2255 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3.SEC (Lot VEGGI) **Purity** 99%	12,506.0 µg/mL	+/- 73.2254 µg/mL +/- 665.5981 µg/mL +/- 666.3320 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1.SEC (Lot E29T040) **Purity** 99%	12,537.3 µg/mL	+/- 73.4088 µg/mL +/- 667.2658 µg/mL +/- 668.0015 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6.SEC (Lot ZSVCD-FF) **Purity** 99%	12,508.7 µg/mL	+/- 73.2410 µg/mL +/- 665.7401 µg/mL +/- 666.4741 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

vm569722_00008

VM 569722 - 00008

Rec: 9/9/16

(20)

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0118719

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,504.2 µg/mL	+/- 18.7109 µg/mL +/- 140.8995 µg/mL +/- 144.1737 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBG1480V) **Purity** 99%	2,500.6 µg/mL	+/- 18.9897 µg/mL +/- 140.7385 µg/mL +/- 144.0070 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 25LPST) **Purity** 99%	2,499.8 µg/mL	+/- 20.8058 µg/mL +/- 140.9486 µg/mL +/- 144.2103 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.6 µg/mL	+/- 21.2874 µg/mL +/- 141.0663 µg/mL +/- 144.3274 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.1 µg/mL	+/- 22.8576 µg/mL +/- 141.2859 µg/mL +/- 144.5409 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 19.5969 µg/mL +/- 140.8062 µg/mL +/- 144.0725 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,504.7 µg/mL	+/- 19.5937 µg/mL +/- 141.0449 µg/mL +/- 144.3170 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,497.3	µg/mL	+/-	18.0543	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBF6387V)			+/-	140.4322	µg/mL	Unstressed
	Purity 99%				+/-	143.6992	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

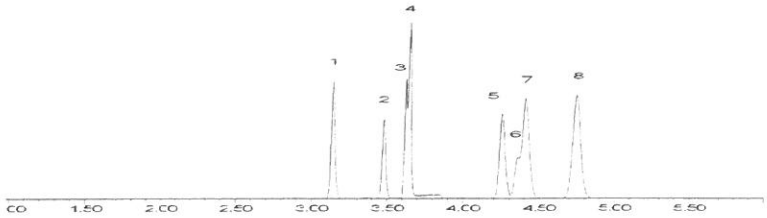
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 13-Apr-2016 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 19-Apr-2016

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00003

YM569722S-00003 Rec: 11/12/15

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0113063

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 21773) **Purity** 99%	2,500.3 µg/mL	+/- 18.8969 µg/mL +/- 30.6711 µg/mL +/- 34.6178 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,502.2 µg/mL	+/- 22.3652 µg/mL +/- 32.9346 µg/mL +/- 36.6435 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,507.8 µg/mL	+/- 20.2660 µg/mL +/- 31.5880 µg/mL +/- 35.4543 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 18349) **Purity** 99%	2,524.8 µg/mL	+/- 19.2677 µg/mL +/- 31.0859 µg/mL +/- 35.0581 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,510.7 µg/mL	+/- 24.3913 µg/mL +/- 34.4006 µg/mL +/- 37.9896 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,499.3 µg/mL	+/- 20.7673 µg/mL +/- 31.8496 µg/mL +/- 35.6630 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,511.4 µg/mL	+/- 18.9807 µg/mL +/- 30.8071 µg/mL +/- 34.7713 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,525.9 µg/mL	+/-	18.1086	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q12B-59)		+/-	30.3895	µg/mL	Unstressed
	Purity 99%			+/-	34.4453	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

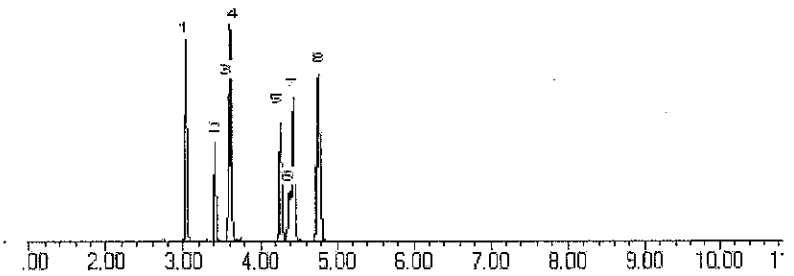
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 05-Aug-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 13-Aug-2015

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VM569723_00002

Rec: 4/6/15

VM569723_00002

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0109994

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,506.0 µg/mL	+/- 14.7066	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.1833	µg/mL	Unstressed
	Purity 99%		+/- 53.4189	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

5

Reagent

VM569723_00003

VM 569723-00003 Rec'd 11/12/15

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0112895

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,503.2 µg/mL	+/- 14.6902	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.1239	µg/mL	Unstressed
	Purity 99%		+/- 53.3593	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569724_00010

Rec! 5/24/17 (10)

VM569724_00010

RESTEK®

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0125716

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate	5,013.5 µg/mL	+/- 29.3551 µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 302.5066 µg/mL	Unstressed
	Purity 99%		+/- 303.2247 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM571992_00001

VM571992_00001 Rec'd 1-25-17

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0123711

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBG1462V) **Purity** 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL +/- 150.9115 µg/mL +/- 151.2698 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,505.1 µg/mL	+/- 14.5650 µg/mL +/- 151.1453 µg/mL +/- 151.5041 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,511.5 µg/mL	+/- 14.6021 µg/mL +/- 151.5299 µg/mL +/- 151.8897 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBF0688V) **Purity** 99%	25,001.8 µg/mL	+/- 145.3547 µg/mL +/- 1,508.4656 µg/mL +/- 1,512.0470 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBF2149V) **Purity** 99%	2,502.9 µg/mL	+/- 14.5519 µg/mL +/- 151.0095 µg/mL +/- 151.3681 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot SHBF8133V) **Purity** 99%	2,517.1 µg/mL	+/- 14.6348 µg/mL +/- 151.8693 µg/mL +/- 152.2299 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,502.1 µg/mL	+/- 14.5476	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBH2578V)		+/- 150.9643	µg/mL	Unstressed
	Purity 99%			+/- 151.3227	µg/mL	Stressed
9	Carbon disulfide		2,501.4 µg/mL	+/- 14.5432	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot S20A856)		+/- 150.9190	µg/mL	Unstressed
	Purity 99%			+/- 151.2773	µg/mL	Stressed
10	Acrylonitrile		25,001.3 µg/mL	+/- 145.3518	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot T07B2030)		+/- 1,508.4355	µg/mL	Unstressed
	Purity 99%			+/- 1,512.0167	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)		2,505.3 µg/mL	+/- 14.5657	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBG2655V)		+/- 151.1528	µg/mL	Unstressed
	Purity 99%			+/- 151.5117	µg/mL	Stressed
12	cis-1,2-Dichloroethene		2,500.5 µg/mL	+/- 14.5379	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBV2831V)		+/- 150.8644	µg/mL	Unstressed
	Purity 98%			+/- 151.2226	µg/mL	Stressed
13	n-Hexane (C6)		2,503.8 µg/mL	+/- 14.5570	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBG2674V)		+/- 151.0623	µg/mL	Unstressed
	Purity 99%			+/- 151.4210	µg/mL	Stressed
14	1,1-Dichloroethane		2,500.4 µg/mL	+/- 14.5374	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 00008621)		+/- 150.8587	µg/mL	Unstressed
	Purity 99%			+/- 151.2169	µg/mL	Stressed
15	2,2-Dichloropropane		2,501.0 µg/mL	+/- 14.5408	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBR0622V)		+/- 150.8940	µg/mL	Unstressed
	Purity 98%			+/- 151.2522	µg/mL	Stressed
16	trans-1,2-Dichloroethene		2,503.8 µg/mL	+/- 14.5570	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot 09431AEV)		+/- 151.0623	µg/mL	Unstressed
	Purity 99%			+/- 151.4210	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,512.5 µg/mL	+/- 363.4341	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBG8201V)		+/- 3,771.6543	µg/mL	Unstressed
	Purity 99%			+/- 3,780.6088	µg/mL	Stressed
18	chloroform		2,501.9 µg/mL	+/- 14.5461	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot MKBV2089V)		+/- 150.9492	µg/mL	Unstressed
	Purity 99%			+/- 151.3076	µg/mL	Stressed
19	Bromochloromethane		2,503.3 µg/mL	+/- 14.5541	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)		+/- 151.0322	µg/mL	Unstressed
	Purity 99%			+/- 151.3907	µg/mL	Stressed
20	Tetrahydrofuran		5,001.3 µg/mL	+/- 29.0777	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBG2910V)		+/- 301.7476	µg/mL	Unstressed
	Purity 99%			+/- 302.4640	µg/mL	Stressed
21	1,1,1-trichloroethane		2,500.3 µg/mL	+/- 14.5367	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B15W12061)		+/- 150.8512	µg/mL	Unstressed
	Purity 99%			+/- 151.2093	µg/mL	Stressed
22	Cyclohexane		2,502.0 µg/mL	+/- 14.5468	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKBX4768V)		+/- 150.9567	µg/mL	Unstressed
	Purity 99%			+/- 151.3151	µg/mL	Stressed
23	1,1-Dichloropropene		2,500.5 µg/mL	+/- 14.5381	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot 160727JLM)		+/- 150.8662	µg/mL	Unstressed
	Purity 99%			+/- 151.2244	µg/mL	Stressed

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBG6171V)	2,505.5 µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBF9313V)	2,504.8 µg/mL	+/- 14.5628 +/- 151.1227 +/- 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBH2056V)	2,506.9 µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2,502.4 µg/mL	+/- 14.5490 +/- 150.9794 +/- 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 98%	(Lot SHBG0634V)	2,500.3 µg/mL	+/- 14.5372 +/- 150.8570 +/- 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,503.0 µg/mL	+/- 14.5527 +/- 151.0171 +/- 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBH2584V)	50,011.4 µg/mL	+/- 290.7552 +/- 3,017.4064 +/- 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2,501.9 µg/mL	+/- 14.5465 +/- 150.9531 +/- 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBH1932V)	2,504.3 µg/mL	+/- 14.5599 +/- 151.0925 +/- 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,506.9 µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2,503.6 µg/mL	+/- 14.5563 +/- 151.0548 +/- 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,500.2 µg/mL	+/-	14.5365	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBW3597V)		+/-	150.8497	µg/mL	Unstressed
	Purity 98%			+/-	151.2078	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,501.3 µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)		+/-	150.9115	µg/mL	Unstressed
	Purity 99%			+/-	151.2698	µg/mL	Stressed
42	Chlorobenzene		2,500.1 µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)		+/-	150.8436	µg/mL	Unstressed
	Purity 99%			+/-	151.2017	µg/mL	Stressed
43	m-Xylene		1,250.3 µg/mL	+/-	7.2691	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBG4347V)		+/-	75.4331	µg/mL	Unstressed
	Purity 99%			+/-	75.6122	µg/mL	Stressed
44	p-Xylene		1,251.3 µg/mL	+/-	7.2749	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBG3928V)		+/-	75.4935	µg/mL	Unstressed
	Purity 99%			+/-	75.6727	µg/mL	Stressed
45	Ethylbenzene		2,503.3 µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBG5920V)		+/-	151.0322	µg/mL	Unstressed
	Purity 99%			+/-	151.3907	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,500.3 µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)		+/-	150.8512	µg/mL	Unstressed
	Purity 99%			+/-	151.2093	µg/mL	Stressed
47	o-Xylene		2,504.9 µg/mL	+/-	14.5636	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH3432V)		+/-	151.1302	µg/mL	Unstressed
	Purity 99%			+/-	151.4890	µg/mL	Stressed
48	Styrene		2,506.3 µg/mL	+/-	14.5716	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKBS7097V)		+/-	151.2132	µg/mL	Unstressed
	Purity 99%			+/-	151.5722	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.6 µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)		+/-	150.9341	µg/mL	Unstressed
	Purity 99%			+/-	151.2925	µg/mL	Stressed
50	bromoform		2,502.9 µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBD8459V)		+/-	151.0095	µg/mL	Unstressed
	Purity 99%			+/-	151.3681	µg/mL	Stressed
51	bromodichloromethane		2,506.8 µg/mL	+/-	14.5750	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKBW5506V)		+/-	151.2490	µg/mL	Unstressed
	Purity 97%			+/-	151.6081	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,501.3 µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)		+/-	150.9115	µg/mL	Unstressed
	Purity 99%			+/-	151.2698	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,508.5 µg/mL	+/-	14.5846	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)		+/-	151.3489	µg/mL	Unstressed
	Purity 99%			+/-	151.7082	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,500.8 µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP6041V)		+/-	150.8817	µg/mL	Unstressed
	Purity 95%			+/-	151.2399	µg/mL	Stressed
55	n-Propylbenzene		2,501.9 µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBJ0332V)		+/-	150.9492	µg/mL	Unstressed
	Purity 99%			+/-	151.3076	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1	µg/mL	+/-	14.5999	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)			+/-	151.5073	µg/mL	Unstressed
	Purity 99%				+/-	151.8670	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

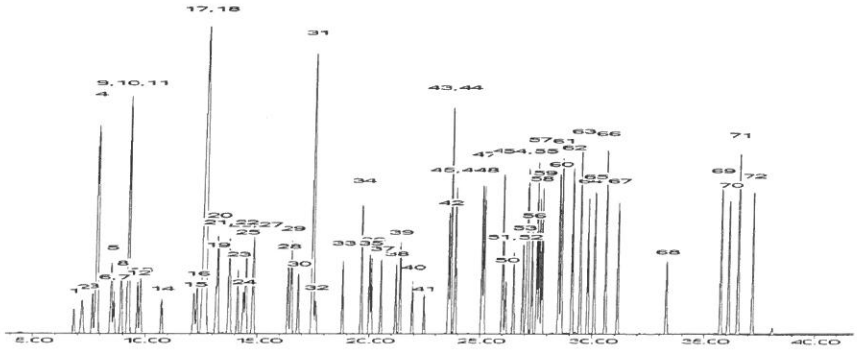
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 22-Dec-2016 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

VM571992S_00001

Rec: 1-25-17
VMS71992S-00001

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.sec **Lot No.:** A0123775

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 150.9088 µg/mL +/- 151.2671 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 150.9040 µg/mL +/- 151.2622 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 2767000) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 150.8662 µg/mL +/- 151.2244 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,003.1 µg/mL	+/- 145.3626 µg/mL +/- 1,508.5475 µg/mL +/- 1,512.1291 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot YDGVD) **Purity** 99%	5,000.4 µg/mL	+/- 29.0726 µg/mL +/- 301.6948 µg/mL +/- 302.4111 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,500.4 µg/mL	+/- 14.5374 µg/mL +/- 150.8587 µg/mL +/- 151.2169 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot VEBOC) **Purity** 98%	2,500.1 µg/mL	+/- 14.5358 µg/mL +/- 150.8423 µg/mL +/- 151.2004 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC (Lot FGM02) **Purity** 99%		2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0.SEC (Lot MKBL1376V) **Purity** 99%		2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1.SEC (Lot UERIL) **Purity** 99%		25,000.9	µg/mL	+/- 145.3496 +/- 1,508.4128 +/- 1,511.9941	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4.SEC (Lot ZAQTA-MS) **Purity** 99%		2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2.SEC (Lot HGC01-BLKT) **Purity** 98%		2,500.7	µg/mL	+/- 14.5394 +/- 150.8792 +/- 151.2374	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3.SEC (Lot 10188491) **Purity** 99%		2,501.5	µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3.SEC (Lot 5379000) **Purity** 99%		2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7.SEC (Lot I7E8E) **Purity** 98%		2,500.1	µg/mL	+/- 14.5358 +/- 150.8423 +/- 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5.SEC (Lot TS5UB) **Purity** 97%		2,500.2	µg/mL	+/- 14.5362 +/- 150.8466 +/- 151.2048	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1.SEC (Lot 83NHH) **Purity** 99%		62,506.9	µg/mL	+/- 363.4014 +/- 3,771.3149 +/- 3,780.2687	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Chloroform **CAS #** 67-66-3.SEC (Lot 1297547) **Purity** 99%		2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5.SEC (Lot 5670200) **Purity** 99%		2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9.SEC (Lot K3V7J-SJ) **Purity** 99%		5,002.3	µg/mL	+/- 29.0835 +/- 301.8079 +/- 302.5245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane **CAS #** 71-55-6.SEC (Lot CS160712) **Purity** 98%		2,500.7	µg/mL	+/- 14.5394 +/- 150.8792 +/- 151.2374	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7.SEC (Lot YADRA) **Purity** 99%		2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6.SEC (Lot 5221100) **Purity** 96%		2,501.3	µg/mL	+/- 14.5427 +/- 150.9133 +/- 151.2716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Carbon tetrachloride **CAS #** 56-23-5.SEC **Purity** 99%	(Lot 11466)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5.SEC **Purity** 99%	(Lot OGM01)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2.SEC **Purity** 99%	(Lot FO6PK)	2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2.SEC **Purity** 99%	(Lot B28Y008)	2,501.5	µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6.SEC **Purity** 99%	(Lot H04X050)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	(Lot 24MSD-CD)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	(Lot OGG01)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	(Lot MUFZH)	50,007.1	µg/mL	+/- 290.7305 +/- 3,017.1500 +/- 3,024.3132	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	(Lot FGI01-OICH)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	(Lot 487OA)	2,500.1	µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	(Lot YND2B-BD)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	(Lot MLWYK-LS)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 99%	(Lot ZDMSL)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 98%	(Lot 5034600)	2,500.8	µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	(Lot AGN01-EFPC)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	(Lot F09W014)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane		2,500.4 µg/mL	+/- 14.5376	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10181507)		+/- 150.8613	µg/mL	Unstressed
	Purity 97%			+/- 151.2194	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,500.5 µg/mL	+/- 14.5381	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)		+/- 150.8662	µg/mL	Unstressed
	Purity 99%			+/- 151.2244	µg/mL	Stressed
42	Chlorobenzene		2,501.0 µg/mL	+/- 14.5410	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)		+/- 150.8964	µg/mL	Unstressed
	Purity 99%			+/- 151.2547	µg/mL	Stressed
43	m-Xylene		1,250.9 µg/mL	+/- 7.2727	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)		+/- 75.4708	µg/mL	Unstressed
	Purity 99%			+/- 75.6500	µg/mL	Stressed
44	p-Xylene		1,250.5 µg/mL	+/- 7.2705	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)		+/- 75.4482	µg/mL	Unstressed
	Purity 99%			+/- 75.6273	µg/mL	Stressed
45	Ethylbenzene		2,500.9 µg/mL	+/- 14.5403	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)		+/- 150.8889	µg/mL	Unstressed
	Purity 99%			+/- 151.2471	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,501.1 µg/mL	+/- 14.5418	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)		+/- 150.9040	µg/mL	Unstressed
	Purity 99%			+/- 151.2622	µg/mL	Stressed
47	o-Xylene		2,500.9 µg/mL	+/- 14.5403	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01-KTPK)		+/- 150.8889	µg/mL	Unstressed
	Purity 99%			+/- 151.2471	µg/mL	Stressed
48	Styrene		2,500.4 µg/mL	+/- 14.5374	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)		+/- 150.8587	µg/mL	Unstressed
	Purity 99%			+/- 151.2169	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,500.5 µg/mL	+/- 14.5381	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)		+/- 150.8662	µg/mL	Unstressed
	Purity 99%			+/- 151.2244	µg/mL	Stressed
50	Bromoform		2,502.3 µg/mL	+/- 14.5483	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5139000)		+/- 150.9718	µg/mL	Unstressed
	Purity 99%			+/- 151.3303	µg/mL	Stressed
51	Bromodichloromethane		2,500.1 µg/mL	+/- 14.5358	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)		+/- 150.8423	µg/mL	Unstressed
	Purity 98%			+/- 151.2004	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,501.3 µg/mL	+/- 14.5425	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)		+/- 150.9115	µg/mL	Unstressed
	Purity 99%			+/- 151.2698	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,500.1 µg/mL	+/- 14.5358	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)		+/- 150.8423	µg/mL	Unstressed
	Purity 98%			+/- 151.2004	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,501.0 µg/mL	+/- 14.5408	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)		+/- 150.8940	µg/mL	Unstressed
	Purity 98%			+/- 151.2522	µg/mL	Stressed
55	n-Propylbenzene		2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC-IT)		+/- 150.8361	µg/mL	Unstressed
	Purity 99%			+/- 151.1942	µg/mL	Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot TOOOF)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot OGN01-CAI)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot SC7LO-QA)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 5221800)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot OGN01-PNP)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	150.9236	µg/mL	Unstressed
	Purity 98%				+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	150.9198	µg/mL	Unstressed
	Purity 97%				+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot SKZ5N)			+/-	150.9417	µg/mL	Unstressed
	Purity 99%				+/-	151.3000	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

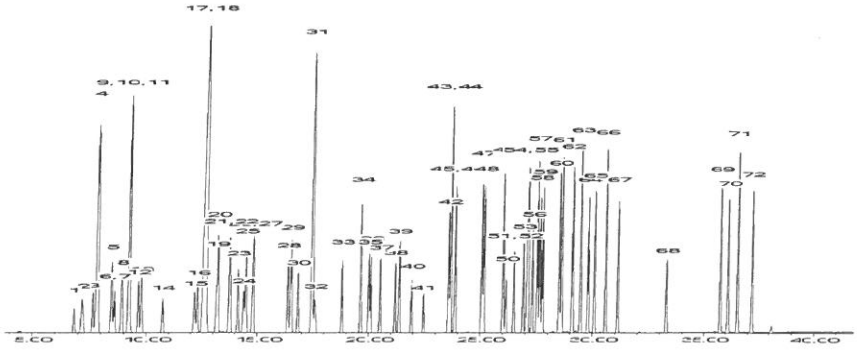
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 28-Dec-2016 **Balance:** 1127510105

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

WCICSOLNA1_00016

Characterization of CRM by two independent methods

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\,(u_{char\ a})^2 + (w_b)^2\,(u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM by one method

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 29, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 29, 2019**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Maurice Harris
Product Documentation Technician

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES
500 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com
tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	TA-19REV1
Lot Number:	K2-MEB653716
Matrix:	H2O
Value / Analyte(s):	2 500 mg/L ea: Chloride, Sulfate, 500 mg/L ea: Bromide, 125 mg/L ea: Fluoride, Nitrate as N

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide, Br	500.0 ± 2.6 mg/L	Chloride, Cl	2 500 ± 13 mg/L
Fluoride, F-	125.0 ± 0.5 mg/L	Nitrate as N, NNO3-	125.0 ± 0.6 mg/L
Sulfate, SO4	2 500 ± 12 mg/L		

Certified Density: 1.010 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Br	IC Assay	3184	020701
Br	Volhard	999c	999c
Cl	ICP Assay	3182	060925
Cl	Volhard	999c	999c
F-	IC Assay	3183	050721
NNO3-	IC Assay	3185	050517
SO4	IC Assay	3181	080603

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Reagent

WCICSOLNB1_00015

Characterization of CRM by two independent methods

Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 29, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 29, 2019

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Maurice Harris
Product Documentation Technician

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com
tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	TA-18
Lot Number:	K2-MEB653717
Matrix:	H2O
Value / Analyte(s):	125 mg/L ea: Nitrite as N

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Nitrite as N, NNO2-	125.0 ± 0.8 mg/L		

Certified Density: 1.001 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
NNO2-	Calculated	traceable to 8040	SRM 8040
NNO2-	IC Assay		traceable to 40h new

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Reagent

WCPHENOMINER_00017

WP Minerals 1 and 2, and Conductivity — Lot #8169-08, -102, -72

TNI Analyte Code	Analyte	Certified Value	Acceptance Limits	
		mg/L	mg/L	%
Lot #8169-08				
1505	Total Alkalinity(as CaCO3)	377	321 - 434	85.1 - 115
1540	Bromide	2.30	1.72 - 2.82	74.8 - 123
1575	Chloride	119	104 - 134	87.4 - 113
1730	Fluoride	0.439	0.296 - 0.59	67.4 - 134
1813	Total Inorganic Carbon	90.1	72.1 - 108	80.0 - 120
2000	Sulfate	51.6	42.5 - 59.1	82.4 - 115
Lot #8169-102				
1035	Calcium	48.6	41.3 - 55.9	85.0 - 115
1550	Calcium Hardness (as CaCO3)	121	103 - 139	85.1 - 115
1755	Total Hardness (as CaCO3)	173	147 - 199	85.0 - 115
1085	Magnesium	12.7	10.8 - 14.6	85.0 - 115
1125	Potassium	18.0	14.4 - 21.6	80.0 - 120
1155	Sodium	67.6	54.1 - 81.1	80.0 - 120
Lot #8169-72		**µmhos/cm**	**µmhos/cm**	**%**
1610	Specific Conductance (25°C)	1090	983 - 1200	90.2 - 110

Certified Values = "100% true concentration" of each analyte as determined from gravimetric and volumetric measurements made during standard manufacture.

Acceptance Limits = Generated based on the criteria established by The NELAC Institute (TNI) Fields of Proficiency Testing tables using regression equations and/or fixed percentage limits, historical data and other criteria distributed by accrediting agencies as applicable. Please note that regression based acceptance criteria are based on the Assigned Value and may have different criteria at different concentrations.

Matrix: Deionized Water
Expiration Date: 07/19

Store at 20-25°C.
Catalog #QC-MINSET-WP

Preparation Instructions: The WP Minerals and Conductivity standards are provided as whole volume standards that do not require a dilution prior to use. The standards are ready for preparation and analysis as received using your normal procedures. The standards should be stored at 20-25°C.

Notes: It is suggested that the lab analyze for Alkalinity first as soon as the Minerals 1 bottle has been opened. If the lab does not analyze Alkalinity, recap the bottle tightly as soon as possible after each use. This will minimize possible CO_2 absorption. Homogenize the Minerals 2 standard well by shaking immediately prior to taking an aliquot. The Minerals 1 and 2 standards contain no acid, so follow your normal procedures for checking and, if needed, adjusting the pH. A separate Conductivity bottle has been provided for the determination of conductivity (WP Conductivity). Do not analyze conductivity from the WP Minerals standards.

Approved by: AFL
Date: 10/16

Reviewed by: ALG
Date: 10/16

Reagent

WCPHENOVSOLID_00022

phenova™ | A Phenomenex Company
Certified Reference Materials

info@phenova.com • www.phenova.com • 1-866-942-2978

WP Solids — Lot #8169-09

TNI Analyte Code	Analyte	Certified Value mg/L	Acceptance Limits mg/L	Acceptance Limits %
1955	Total Dissolved Solids at 180° (TFR)	242	197 - 287	81.4 - 119
1960	Non-Filterable Residue (TSS)	59.1	46.8 - 66.9	79.2 - 113
1950	Total Solids	301	256 - 346	85.0 - 115

Certified Values = "100% true concentration" of each analyte as determined from gravimetric and volumetric measurements made during standard manufacture.

Acceptance Limits = Generated based on the criteria established by The NELAC Institute (TNI) Fields of Proficiency Testing tables using regression equations and/or fixed percentage limits, historical data and other criteria distributed by accrediting agencies as applicable. Please note that regression based acceptance criteria are based on the Assigned Value and may have different criteria at different concentrations.

Solvent = Deionized Water

Store at 20-25°C.

Expiration Date: 07/19

Catalog #QC-SOL-WP

Preparation Instructions: The WP Solids standard is provided as a ready-to-use standard that does not require dilution prior to use. Shake adequately to homogenize the standard before removing an aliquot for analysis. Analyze by your normal procedures.

Note: It is strongly recommended that you analyze for TSS prior to removing aliquots for other analyses from the Solids bottle.

Approved by: AFL

Reviewed by: ALG

Date: 10/16

Date: 10/16

Reagent

RSK_8COMP_00007

Airgas

Airgas Specialty Gases
616 Miller Cut Off Rd
Laporte, TX 77571
281-842-6900
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED HYDROCARBON

Customer:	*NASHVILLE , TN*		
Part Number:	X09HE92C3500024	Reference Number:	126-400488621-1
Cylinder Number:	RD136191	Cylinder Volume:	18.7 CF
Laboratory:	ASG - LaPorte Mix (SAP) - TX	Cylinder Pressure:	57 PSIG
Analysis Date:	Jan 30, 2015	Valve Outlet:	510
Lot Number:	126-400488621-1	Expiration Date:	Jan 30, 2018

Traceability Statement: Hydrocarbon Process standards are NIST traceable either directly by weight or by comparison to Airgas laboratory standards that are directly NIST traceable by weight.

CERTIFIED CONCENTRATIONS

Component	Requested Concentration	Reported Mole %	Accuracy
ETHANE	1.000 %	1.006 %	+/- 2%
ETHYLENE	1.000 %	1.005 %	+/- 2%
HEXANE	1.000 %	1.002 %	+/- 2%
ISOBUTANE	1.000 %	1.011 %	+/- 2%
METHANE	1.000 %	1.001 %	+/- 2%
N BUTANE	1.000 %	1.007 %	+/- 2%
N PENTANE	1.000 %	1.008 %	+/- 2%
PROPANE	1.000 %	1.003 %	+/- 2%
HELIUM	Balance	Balance	

2061664
ID RSK_8COMP_00007
Exp. 01/30/18 Prpd: JML
8 COMP MIX

Approved for Release

Reagent

RSK_ACE_00004

Airgas

2657163
ID: RSK_ACE_00004
Exp:06/13/19 Prpd:JML Opn:06/13/14
acetylene as spike NV0277

1541262
ID: RSK_sur_ACE_00004
Exp:06/13/19 Prpd:JPS Opn:06/13/14
acetylene surrogate Nv027

Rec. 6/13/14

Airgas Specialty Gases
12722 South Wentworth Avenue
Chicago, IL 60628
(773) 785-3000 Fax: (773) 785-1928
www.airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X02NI99C2006256	Reference Number:	54-124439226-1
Cylinder Number:	AGAC149296	Cylinder Volume:	215.8 CF
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	2014 PSIG
Analysis Date:	Jun 10, 2014	Valve Outlet:	350
Lot Number:	54-124439226-1		

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration (Mole %)	Analytical Uncertainty
ACETYLENE	1.000 %	1.029 %	+/- 2%
NITROGEN	Balance		

Notes:

Approved for Release

Reagent

RSK_sur_ACE_00004

Airgas

1541262
ID: RSK_sur_ACE_00004
Exp:06/13/19 Prpd:JPS Opn:06/13/14
acetylene surrogate Nv027

Rec. 6/13/14

Airgas Specialty Gases
12722 South Wentworth Avenue
Chicago, IL 60628
(773) 785-3000 Fax: (773) 785-1928
www.airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X02NI99C2006256	Reference Number:	54-124439226-1
Cylinder Number:	AGAC149296	Cylinder Volume:	215.8 CF
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	2014 PSIG
Analysis Date:	Jun 10, 2014	Valve Outlet:	350
Lot Number:	54-124439226-1		

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration (Mole %)	Analytical Uncertainty
ACETYLENE	1.000 %	1.029 %	+/- 2%
NITROGEN	Balance		

Notes:

Approved for Release

Reagent

RSK_VER 8COMP_00001

Airgas

Airgas USA, LLC
616 Miller Cut Off Rd
Laporte, TX 77571
281-842-6900
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED HYDROCARBON

Customer:	*S140* - NASHVILLE , TN	Reference Number:	126-400491844-1
Part Number:	X09HE92C350002Z4	Cylinder Volume:	18.7 CF
Cylinder Number:	5697DX	Cylinder Pressure:	57 PSIG
Laboratory:	ASG - LaPorte Mix (SAP) - TX	Valve Outlet:	510
Analysis Date:	Feb 17, 2015	Expiration Date:	Feb 17, 2018
Lot Number:	126-400491844-1		

ID: RSK_VER 8COMP_00001
Exp: 02/17/18 Prpd: JML
VERIFY 8 COMP MIX

261303Z

Traceability Statement: Hydrocarbon Process standards are NIST traceable either directly by weight or by comparison to Airgas laboratory standards that are directly NIST traceable by weight.

CERTIFIED CONCENTRATIONS

Component	Requested Concentration	Reported Mole %	Accuracy
ETHANE	1.000 %	0.9998 %	+/- 2%
ETHYLENE	1.000 %	0.9990 %	+/- 2%
HEXANE	1.000 %	1.000 %	+/- 2%
ISOBUTANE	1.000 %	0.9993 %	+/- 2%
METHANE	1.000 %	0.9985 %	+/- 2%
N BUTANE	1.000 %	0.9993 %	+/- 2%
N PENTANE	1.000 %	0.9991 %	+/- 2%
PROPANE	1.000 %	1.001 %	+/- 2%
HELIUM	Balance	Balance	

Approved for Release

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
SEMW-9S-070617	240-81987-1	97	93	103	103
SEMW-9I-070617	240-81987-2	94	92	106	107
SEMW-8I-070617	240-81987-3	96	94	106	104
SEMW-7I-070617	240-81987-4	95	93	104	102
TB-070617	240-81987-5	95	97	103	103
	MB 240-287117/7	93	91	101	101
	LCS 240-287117/4	103	102	105	107
	240-82074-B-10 MS	102	106	103	107
	240-82074-B-10 MSD	100	100	104	107

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964389.D

Lab ID: LCS 240-287117/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	23.4	117	64-147	
1,1,2,2-Tetrachloroethane	20.0	19.2	96	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.0	95	65-144	
1,1,2-Trichloroethane	20.0	22.3	112	76-121	
1,1-Dichloroethane	20.0	22.1	110	74-120	
1,1-Dichloroethene	20.0	20.2	101	65-127	
1,2,4-Trichlorobenzene	20.0	22.3	111	34-141	
1,2-Dibromo-3-Chloropropane	20.0	18.4	92	50-130	
Ethylene Dibromide	20.0	20.6	103	80-120	
1,2-Dichlorobenzene	20.0	21.5	107	80-120	
1,2-Dichloroethane	20.0	21.5	107	68-133	
1,2-Dichloropropane	20.0	21.1	105	78-127	
1,3-Dichlorobenzene	20.0	21.6	108	80-120	
1,4-Dichlorobenzene	20.0	21.4	107	80-120	
2-Butanone (MEK)	40.0	37.2	93	43-149	
2-Hexanone	40.0	38.9	97	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	37.1	93	53-144	
Acetone	40.0	37.0	93	35-131	
Benzene	20.0	22.0	110	79-120	
Dichlorobromomethane	20.0	20.7	104	79-125	
Bromoform	20.0	20.2	101	55-145	
Bromomethane	20.0	18.5	92	17-158	
Carbon disulfide	20.0	19.4	97	49-141	
Carbon tetrachloride	20.0	22.2	111	55-171	
Chlorobenzene	20.0	20.3	102	80-120	
Chloroethane	20.0	20.4	102	10-149	
Chloroform	20.0	21.7	109	80-120	
Chloromethane	20.0	20.5	103	59-124	
cis-1,2-Dichloroethene	20.0	22.0	110	77-120	
cis-1,3-Dichloropropene	20.0	22.4	112	75-120	
Cyclohexane	20.0	20.0	100	66-135	
Chlorodibromomethane	20.0	20.7	104	64-129	
Dichlorodifluoromethane	20.0	23.3	117	42-141	
Ethylbenzene	20.0	22.4	112	80-120	
Isopropylbenzene	20.0	22.6	113	80-128	
Methyl acetate	40.0	36.6	91	63-137	
Methyl tert-butyl ether	20.0	21.9	109	73-120	
Methylcyclohexane	20.0	19.4	97	63-141	
Methylene Chloride	20.0	19.5	98	64-140	
Styrene	20.0	22.4	112	80-121	
Tetrachloroethene	20.0	20.9	105	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964389.D

Lab ID: LCS 240-287117/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	21.6	108	78-120	
trans-1,2-Dichloroethene	20.0	21.0	105	74-124	
trans-1,3-Dichloropropene	20.0	20.3	101	67-120	
Trichloroethene	20.0	22.9	115	76-124	
Trichlorofluoromethane	20.0	22.6	113	27-176	
Vinyl chloride	20.0	21.3	107	65-124	
Xylenes, Total	40.0	44.4	111	80-120	
m-Xylene & p-Xylene	20.0	21.9	109	80-120	
o-Xylene	20.0	22.5	112	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964413.D

Lab ID: 240-82074-B-10 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	250	2.9 U	236	94	57-156	
1,1,2,2-Tetrachloroethane	250	4.0 U	209	83	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	5.1 U	223	89	58-137	
1,1,2-Trichloroethane	250	4.3 U	229	92	68-127	
1,1-Dichloroethane	250	3.1 U	234	94	69-122	
1,1-Dichloroethene	250	3.4 U	231	92	62-127	
1,2,4-Trichlorobenzene	250	3.4 U	222	89	26-138	
1,2-Dibromo-3-Chloropropane	250	5.9 U	184	74	48-130	
Ethylene Dibromide	250	2.9 U	211	85	73-121	
1,2-Dichlorobenzene	250	3.3 U	222	89	70-120	
1,2-Dichloroethane	250	3.8 U	239	95	64-138	
1,2-Dichloropropane	250	3.8 U	219	88	72-131	
1,3-Dichlorobenzene	250	4.0 U	223	89	71-120	
1,4-Dichlorobenzene	250	2.9 U	226	90	72-120	
2-Butanone (MEK)	500	13 U	399	80	34-153	
2-Hexanone	500	15 U	386	77	21-184	
4-Methyl-2-pentanone (MIBK)	500	8.9 U	395	79	53-147	
Acetone	500	22 U	460	92	19-133	
Benzene	250	3.5 U	242	97	69-127	
Dichlorobromomethane	250	3.8 U	214	86	75-128	
Bromoform	250	5.4 U	190	76	61-135	
Bromomethane	250	5.3 U	198	79	10-148	
Carbon disulfide	250	4.3 U	207	83	46-143	
Carbon tetrachloride	250	4.4 U	228	91	53-175	
Chlorobenzene	250	4.0 U	217	87	76-120	
Chloroethane	250	5.1 U	220	88	10-141	
Chloroform	250	3.9 U	230	92	74-125	
Chloromethane	250	5.4 U	223	89	34-127	
cis-1,2-Dichloroethene	250	4.4 J	237	93	69-127	
cis-1,3-Dichloropropene	250	3.3 U	227	91	68-120	
Cyclohexane	250	5.5 U	218	87	56-135	
Chlorodibromomethane	250	3.1 U	194	77	62-131	
Dichlorodifluoromethane	250	6.3 U	241	96	45-130	
Ethylbenzene	250	3.3 U	229	92	72-121	
Isopropylbenzene	250	2.6 U	229	92	70-132	
Methyl acetate	500	18 U	423	85	52-139	
Methyl tert-butyl ether	250	3.4 U	231	93	67-125	
Methylcyclohexane	250	5.6 U	217	87	46-139	
Methylene Chloride	250	6.6 U	204	81	52-137	
Styrene	250	2.9 U	229	92	74-125	
Tetrachloroethene	250	3.8 U	221	89	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964413.D

Lab ID: 240-82074-B-10 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	250	2.9 U	225	90	69-125	
trans-1,2-Dichloroethene	250	3.6 U	233	93	66-131	
trans-1,3-Dichloropropene	250	3.9 U	194	77	59-120	
Trichloroethene	250	640	832	77	68-129	E
Trichlorofluoromethane	250	6.3 U	254	102	28-172	
Vinyl chloride	250	5.6 U	226	90	55-123	
Xylenes, Total	500	3.0 U	456	91	71-122	
m-Xylene & p-Xylene	250	3.0 U	227	91	70-121	
o-Xylene	250	3.5 U	229	91	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964414.D

Lab ID: 240-82074-B-10 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	250	236	94	0	13	57-156	
1,1,2,2-Tetrachloroethane	250	218	87	4	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	225	90	1	35	58-137	
1,1,2-Trichloroethane	250	221	88	4	11	68-127	
1,1-Dichloroethane	250	238	95	1	11	69-122	
1,1-Dichloroethene	250	229	91	1	14	62-127	
1,2,4-Trichlorobenzene	250	227	91	2	35	26-138	
1,2-Dibromo-3-Chloropropane	250	198	79	7	31	48-130	
Ethylene Dibromide	250	220	88	4	12	73-121	
1,2-Dichlorobenzene	250	226	91	2	19	70-120	
1,2-Dichloroethane	250	237	95	1	11	64-138	
1,2-Dichloropropane	250	226	90	3	12	72-131	
1,3-Dichlorobenzene	250	225	90	1	18	71-120	
1,4-Dichlorobenzene	250	221	88	2	17	72-120	
2-Butanone (MEK)	500	406	81	2	23	34-153	
2-Hexanone	500	400	80	4	12	21-184	
4-Methyl-2-pentanone (MIBK)	500	395	79	0	16	53-147	
Acetone	500	470	94	2	35	19-133	
Benzene	250	232	93	4	10	69-127	
Dichlorobromomethane	250	218	87	2	13	75-128	
Bromoform	250	186	74	2	13	61-135	
Bromomethane	250	200	80	1	35	10-148	
Carbon disulfide	250	197	79	5	18	46-143	
Carbon tetrachloride	250	222	89	3	17	53-175	
Chlorobenzene	250	211	85	3	12	76-120	
Chloroethane	250	216	87	2	35	10-141	
Chloroform	250	226	90	1	11	74-125	
Chloromethane	250	227	91	2	25	34-127	
cis-1,2-Dichloroethene	250	238	93	1	11	69-127	
cis-1,3-Dichloropropene	250	223	89	2	13	68-120	
Cyclohexane	250	215	86	1	35	56-135	
Chlorodibromomethane	250	208	83	7	15	62-131	
Dichlorodifluoromethane	250	261	104	8	34	45-130	
Ethylbenzene	250	224	90	2	15	72-121	
Isopropylbenzene	250	221	89	3	16	70-132	
Methyl acetate	500	424	85	0	14	52-139	
Methyl tert-butyl ether	250	231	93	0	12	67-125	
Methylcyclohexane	250	227	91	4	35	46-139	
Methylene Chloride	250	214	86	5	12	52-137	
Styrene	250	226	90	1	14	74-125	
Tetrachloroethene	250	212	85	4	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964414.D

Lab ID: 240-82074-B-10 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	250	223	89	1	14	69-125	
trans-1,2-Dichloroethene	250	224	90	4	11	66-131	
trans-1,3-Dichloropropene	250	195	78	1	14	59-120	
Trichloroethene	250	808	67	3	12	68-129	E F1
Trichlorofluoromethane	250	256	102	1	26	28-172	
Vinyl chloride	250	225	90	1	12	55-123	
Xylenes, Total	500	445	89	2	14	71-122	
m-Xylene & p-Xylene	250	218	87	4	15	70-121	
o-Xylene	250	227	91	1	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab File ID: UX964392.D Lab Sample ID: MB 240-287117/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 07/13/2017 20:36

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-287117/4	UX964389.D	07/13/2017 19:26
SEMW-9S-070617	240-81987-1	UX964395.D	07/13/2017 21:48
SEMW-9I-070617	240-81987-2	UX964396.D	07/13/2017 22:13
SEMW-8I-070617	240-81987-3	UX964397.D	07/13/2017 22:37
SEMW-7I-070617	240-81987-4	UX964398.D	07/13/2017 23:01
TB-070617	240-81987-5	UX964399.D	07/13/2017 23:25
	240-82074-B-10 MS	UX964413.D	07/14/2017 05:02
	240-82074-B-10 MSD	UX964414.D	07/14/2017 05:26

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab File ID: BFB3716.D BFB Injection Date: 07/10/2017

Instrument ID: A3UX9 BFB Injection Time: 19:06

Analysis Batch No.: 286596

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	37.8	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	77.9	
175	5.0 - 9.0 % of mass 174	5.6	(7.2) 1
176	95.0 - 101.0 % of mass 174	74.8	(95.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-286596/8	UX964311.D	07/10/2017	19:33
	STD8260 240-286596/9	UX964312.D	07/10/2017	19:57
	STD8260 240-286596/10	UX964313.D	07/10/2017	20:21
	ICIS 240-286596/11	UX964314.D	07/10/2017	20:45
	STD8260 240-286596/12	UX964315.D	07/10/2017	21:09
	STD8260 240-286596/13	UX964316.D	07/10/2017	21:33
	ICV 240-286596/14	UX964317.D	07/10/2017	21:57

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab File ID: BFB3721.D BFB Injection Date: 07/13/2017

Instrument ID: A3UX9 BFB Injection Time: 18:35

Analysis Batch No.: 287117

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	38.4	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	76.7	
175	5.0 - 9.0 % of mass 174	5.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	73.6	(96.0) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-287117/3	UX964388.D	07/13/2017	19:01
	LCS 240-287117/4	UX964389.D	07/13/2017	19:26
	CCV 240-287117/5	UX964390.D	07/13/2017	19:50
	MB 240-287117/7	UX964392.D	07/13/2017	20:36
SEMW-9S-070617	240-81987-1	UX964395.D	07/13/2017	21:48
SEMW-9I-070617	240-81987-2	UX964396.D	07/13/2017	22:13
SEMW-8I-070617	240-81987-3	UX964397.D	07/13/2017	22:37
SEMW-7I-070617	240-81987-4	UX964398.D	07/13/2017	23:01
TB-070617	240-81987-5	UX964399.D	07/13/2017	23:25
	240-82074-B-10 MS	UX964413.D	07/14/2017	05:02
	240-82074-B-10 MSD	UX964414.D	07/14/2017	05:26

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Sample No.: ICIS 240-286596/11 Date Analyzed: 07/10/2017 20:45

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX964314.D Heated Purge: (Y/N) N

Calibration ID: 40616

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1047734	5.73	872831	8.41	471730	10.65
UPPER LIMIT		2095468	6.23	1745662	8.91	943460	11.15
LOWER LIMIT		523867	5.23	436416	7.91	235865	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-286596/14		1032035	5.72	863506	8.41	480789	10.66
CCVIS 240-287117/3		957257	5.72	821438	8.41	483444	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Sample No.: CCVIS 240-287117/3 Date Analyzed: 07/13/2017 19:01

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX964388.D Heated Purge: (Y/N) N

Calibration ID: 40654

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		957257	5.72	821438	8.41	483444	10.65
UPPER LIMIT		1914514	6.22	1642876	8.91	966888	11.15
LOWER LIMIT		478629	5.22	410719	7.91	241722	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-287117/4		970724	5.72	814562	8.41	471361	10.65
CCV 240-287117/5		973052	5.72	811157	8.41	455213	10.65
MB 240-287117/7		942585	5.72	811243	8.41	432259	10.65
240-81987-1	SEMW-9S-070617	914675	5.73	784381	8.41	413673	10.65
240-81987-2	SEMW-9I-070617	903658	5.73	759864	8.41	423785	10.65
240-81987-3	SEMW-8I-070617	897925	5.72	772756	8.41	423777	10.65
240-81987-4	SEMW-7I-070617	903153	5.72	766698	8.41	433275	10.66
240-81987-5	TB-070617	874756	5.72	758166	8.41	399862	10.65
240-82074-B-10 MS		920749	5.72	800418	8.41	452853	10.65
240-82074-B-10 MSD		932251	5.72	791388	8.41	435801	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9S-070617 | Lab Sample ID: 240-81987-1

Matrix: Water | Lab File ID: UX964395.D

Analysis Method: 8260C | Date Collected: 07/06/2017 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 21:48

Soil Aliquot Vol: | Dilution Factor: 400

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	92	U	400	92
79-34-5	1,1,2,2-Tetrachloroethane	130	U	400	130
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	160	U	400	160
79-00-5	1,1,2-Trichloroethane	140	U	400	140
75-34-3	1,1-Dichloroethane	100	U	400	100
75-35-4	1,1-Dichloroethene	110	U	400	110
120-82-1	1,2,4-Trichlorobenzene	110	U	400	110
96-12-8	1,2-Dibromo-3-Chloropropane	190	U	800	190
106-93-4	Ethylene Dibromide	92	U	400	92
95-50-1	1,2-Dichlorobenzene	100	U	400	100
107-06-2	1,2-Dichloroethane	120	U	400	120
78-87-5	1,2-Dichloropropane	120	U	400	120
541-73-1	1,3-Dichlorobenzene	130	U	400	130
106-46-7	1,4-Dichlorobenzene	92	U	400	92
78-93-3	2-Butanone (MEK)	410	U	4000	410
591-78-6	2-Hexanone	490	U	4000	490
108-10-1	4-Methyl-2-pentanone (MIBK)	280	U	4000	280
67-64-1	Acetone	700	U	4000	700
71-43-2	Benzene	110	U	400	110
75-27-4	Dichlorobromomethane	120	U	400	120
75-25-2	Bromoform	170	U	400	170
74-83-9	Bromomethane	170	U	400	170
75-15-0	Carbon disulfide	140	U	400	140
56-23-5	Carbon tetrachloride	140	U	400	140
108-90-7	Chlorobenzene	130	U	400	130
75-00-3	Chloroethane	160	U	400	160
67-66-3	Chloroform	120	U	400	120
74-87-3	Chloromethane	170	U	400	170
156-59-2	cis-1,2-Dichloroethene	120	U	400	120
10061-01-5	cis-1,3-Dichloropropene	100	U	400	100
110-82-7	Cyclohexane	180	U	400	180
124-48-1	Chlorodibromomethane	100	U	400	100
75-71-8	Dichlorodifluoromethane	200	U	400	200
100-41-4	Ethylbenzene	100	U	400	100
98-82-8	Isopropylbenzene	84	U	400	84

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9S-070617 | Lab Sample ID: 240-81987-1

Matrix: Water | Lab File ID: UX964395.D

Analysis Method: 8260C | Date Collected: 07/06/2017 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 21:48

Soil Aliquot Vol: | Dilution Factor: 400

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	570	U	4000	570
1634-04-4	Methyl tert-butyl ether	110	U	400	110
108-87-2	Methylcyclohexane	180	U	400	180
75-09-2	Methylene Chloride	210	J B	400	210
100-42-5	Styrene	92	U	400	92
127-18-4	Tetrachloroethene	120	U	400	120
108-88-3	Toluene	92	U	400	92
156-60-5	trans-1,2-Dichloroethene	120	U	400	120
10061-02-6	trans-1,3-Dichloropropene	120	U	400	120
79-01-6	Trichloroethene	15000		400	130
75-69-4	Trichlorofluoromethane	200	U	400	200
75-01-4	Vinyl chloride	180	U	400	180
1330-20-7	Xylenes, Total	96	U	800	96

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964395.D
Lims ID: 240-81987-A-1
Client ID: SEMW-9S-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 21:48:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 400.0000
Sample Info: 240-0066907-010
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 22:23:52 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 22:23:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.726	5.723	0.003	98	914675	20.0	
* 2 Chlorobenzene-d5	117	8.412	8.409	0.003	92	784381	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.648	10.645	0.003	95	413673	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.146	5.143	0.003	94	205312	19.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.442	5.439	0.003	96	309081	18.6	
$ 6 Toluene-d8 (Surr)	98	7.099	7.096	0.003	95	884248	20.5	
$ 7 4-Bromofluorobenzene (Surr	95	9.524	9.521	0.003	90	388258	20.7	
9 Dichlorodifluoromethane	85		1.700				ND	
10 Chloromethane	50		1.877				ND	
11 Vinyl chloride	62		2.008				ND	
13 Bromomethane	94		2.363				ND	
15 Chloroethane	64		2.481				ND	
17 Trichlorofluoromethane	101		2.718				ND	
24 1,1-Dichloroethene	61		3.215				ND	
23 Acetone	43	3.241	3.226	0.015	71	14808	0.4894	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226				ND	
26 Carbon disulfide	76		3.428				ND	
29 Methyl acetate	43		3.522				ND	
30 Methylene Chloride	49	3.679	3.676	0.003	92	16608	0.5180	
34 trans-1,2-Dichloroethene	61		3.877				ND	
33 Methyl tert-butyl ether	73		3.877				ND	
36 1,1-Dichloroethane	63		4.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.744	4.741	0.003	74	5716	0.2269	
41 2-Butanone (MEK)	43		4.741				ND	
49 Chloroform	83	5.004	5.001	0.003	22	2523	0.1277	
50 1,1,1-Trichloroethane	97		5.179				ND	
51 Cyclohexane	84		5.238				ND	
53 Carbon tetrachloride	117		5.333				ND	
56 1,2-Dichloroethane	62		5.498				ND	
55 Benzene	78		5.498				ND	
60 Trichloroethene	130	6.045	6.043	0.002	91	498108	38.7	
62 Methylcyclohexane	83		6.220				ND	
63 1,2-Dichloropropane	63		6.232				ND	
67 Dichlorobromomethane	83		6.457				ND	
71 cis-1,3-Dichloropropene	75		6.847				ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966				ND	
73 Toluene	91		7.155				ND	
74 trans-1,3-Dichloropropene	75		7.332				ND	
76 1,1,2-Trichloroethane	97		7.498				ND	
78 Tetrachloroethene	166		7.664				ND	
80 2-Hexanone	43		7.711				ND	
82 Chlorodibromomethane	129		7.877				ND	
83 Ethylene Dibromide	107		7.983				ND	
85 Chlorobenzene	112		8.445				ND	
87 Ethylbenzene	106		8.539				ND	
88 m-Xylene & p-Xylene	106		8.646				ND	
89 o-Xylene	106		9.024				ND	
90 Styrene	104		9.024				ND	
91 Bromoform	173		9.214				ND	
92 Isopropylbenzene	105		9.368				ND	
94 1,1,2,2-Tetrachloroethane	83		9.640				ND	
108 1,3-Dichlorobenzene	146		10.586				ND	
110 1,4-Dichlorobenzene	146		10.669				ND	
114 1,2-Dichlorobenzene	146		11.048				ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817				ND	
117 1,2,4-Trichlorobenzene	180		12.645				ND	
S 131 Xylenes, Total	106		17.230				ND	

Reagents:

vm100ss_stk_00026	Amount Added: 1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added: 0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added: 1.00	Units: uL	Run Reagent

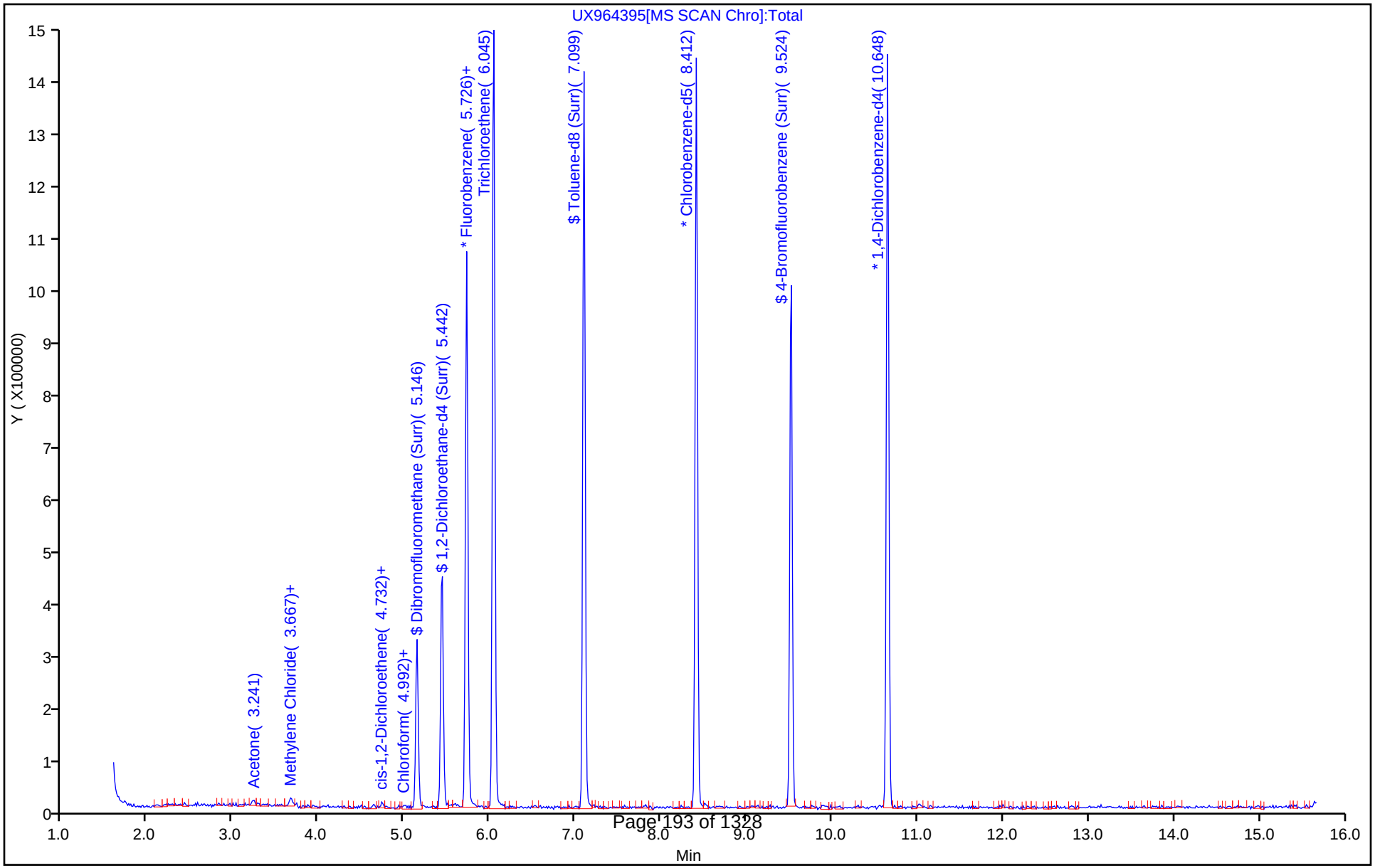
Report Date: 13-Jul-2017 22:23:53 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964395.D

Injection Date:	13-Jul-2017 21:48:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-81987-A-1	Lab Sample ID:	240-81987-1	Worklist Smp#:	10
Client ID:	SEMW-9S-070617				
Purge Vol:	5.000 mL	Dil. Factor:	400.0000	ALS Bottle#:	9
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964395.D
Lims ID: 240-81987-A-1
Client ID: SEMW-9S-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 21:48:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 400.0000
Sample Info: 240-0066907-010
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 22:23:52 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 22:23:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	19.4	96.98
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.6	92.79
$ 6 Toluene-d8 (Surr)	20.0	20.5	102.62
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.7	103.25

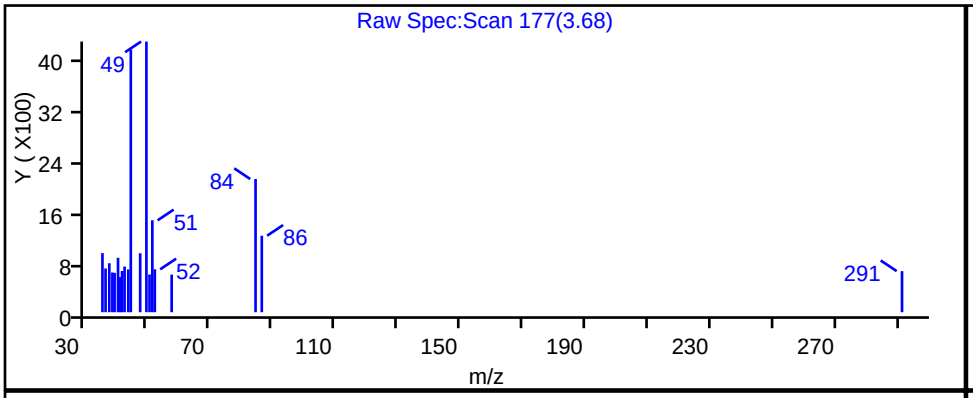
Report Date: 13-Jul-2017 22:23:53 Chrom Revision: 2.2 20-Jun-2017 07:42:38

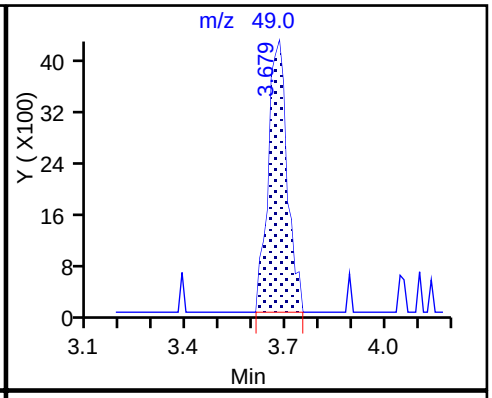
TestAmerica Canton

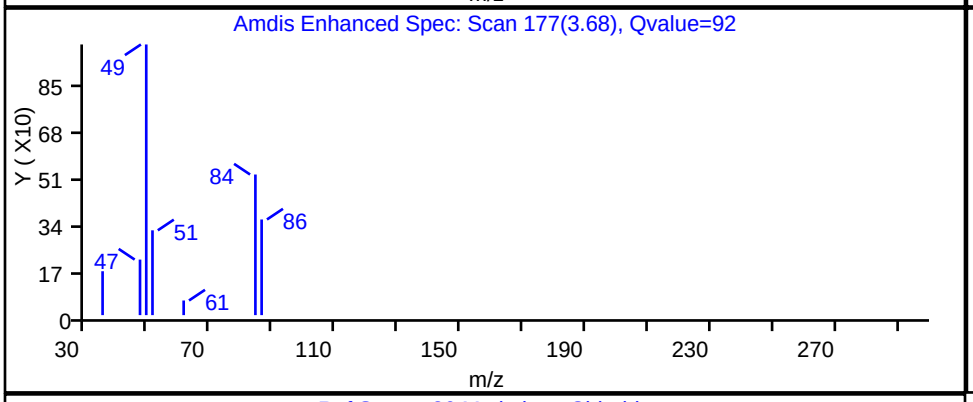
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964395.D

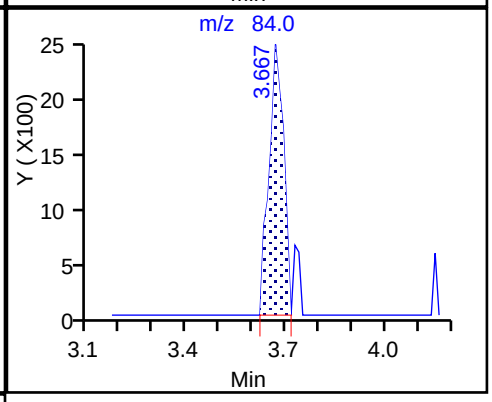
Injection Date:	13-Jul-2017 21:48:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-1	Lab Sample ID:	240-81987-1		
Client ID:	SEMW-9S-070617				
Operator ID:	001904	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	400.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

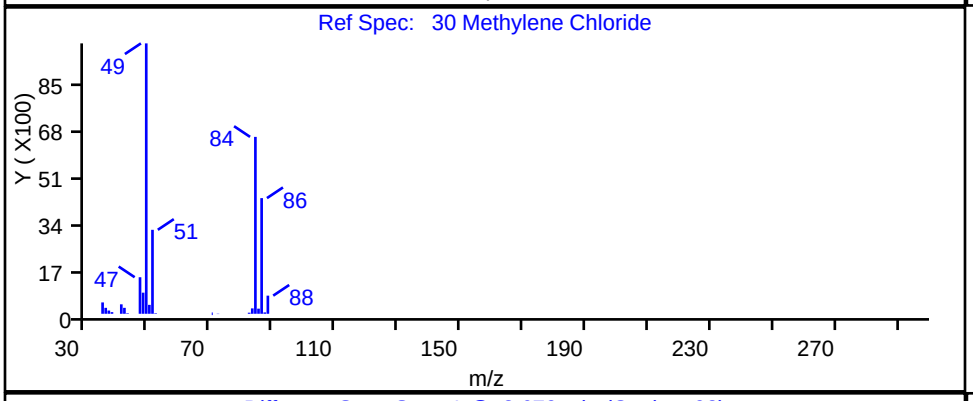
30 Methylene Chloride, CAS: 75-09-2

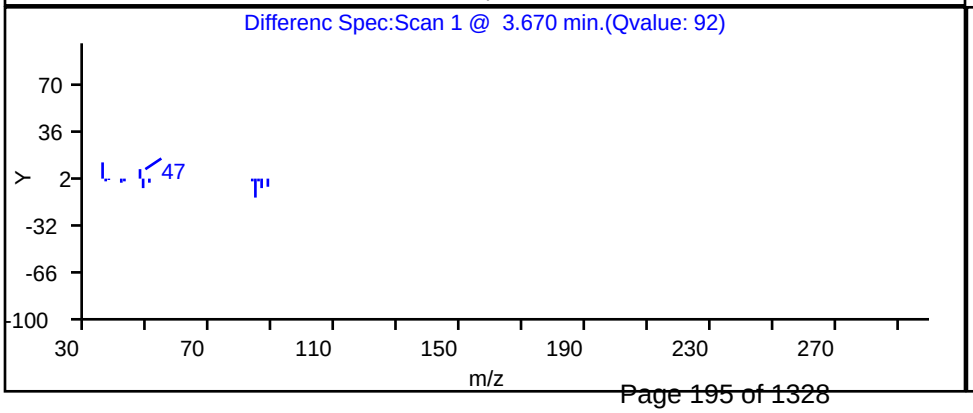


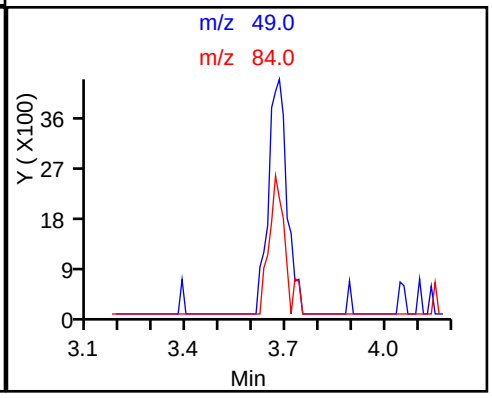












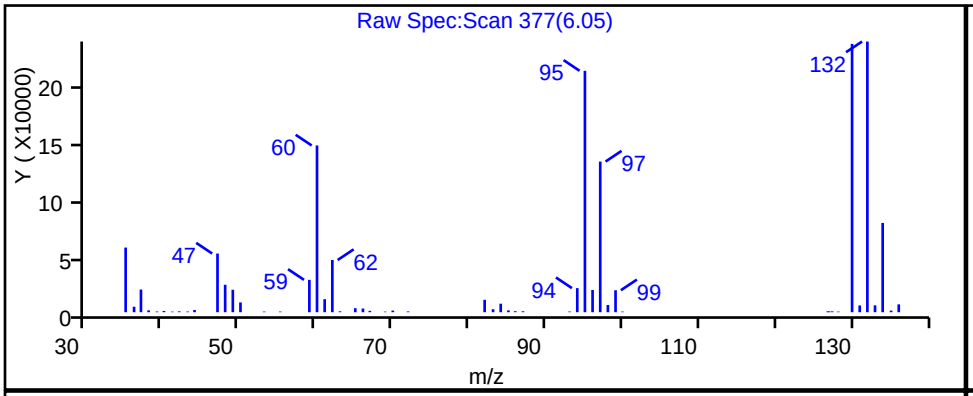
Report Date: 13-Jul-2017 22:23:53 Chrom Revision: 2.2 20-Jun-2017 07:42:38

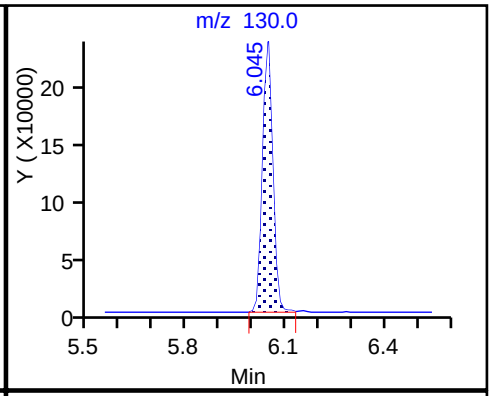
TestAmerica Canton

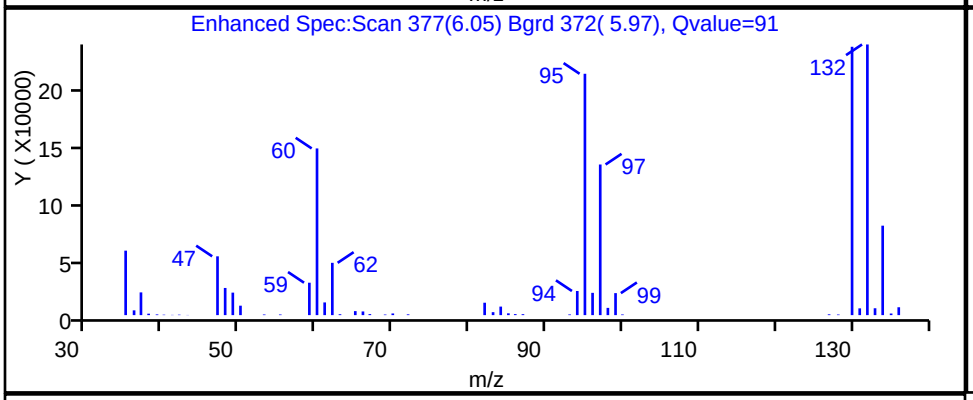
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964395.D

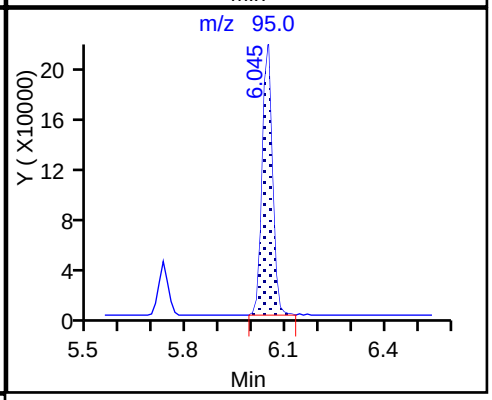
Injection Date:	13-Jul-2017 21:48:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-1	Lab Sample ID:	240-81987-1		
Client ID:	SEMW-9S-070617				
Operator ID:	001904	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	400.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

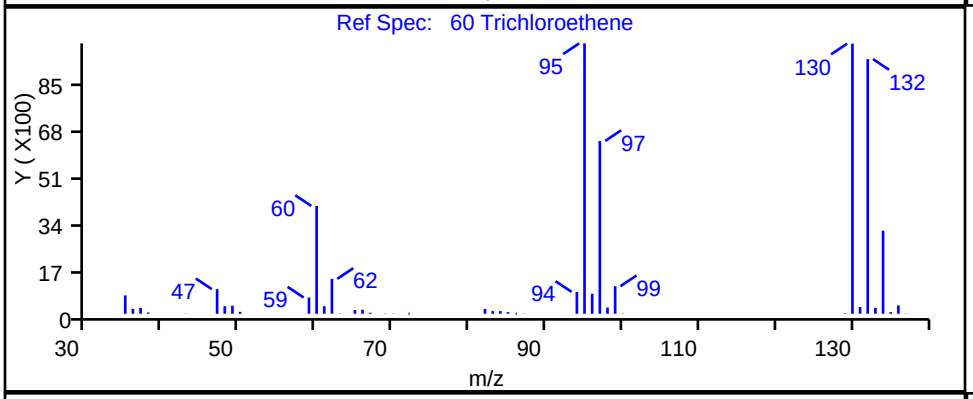
60 Trichloroethene, CAS: 79-01-6

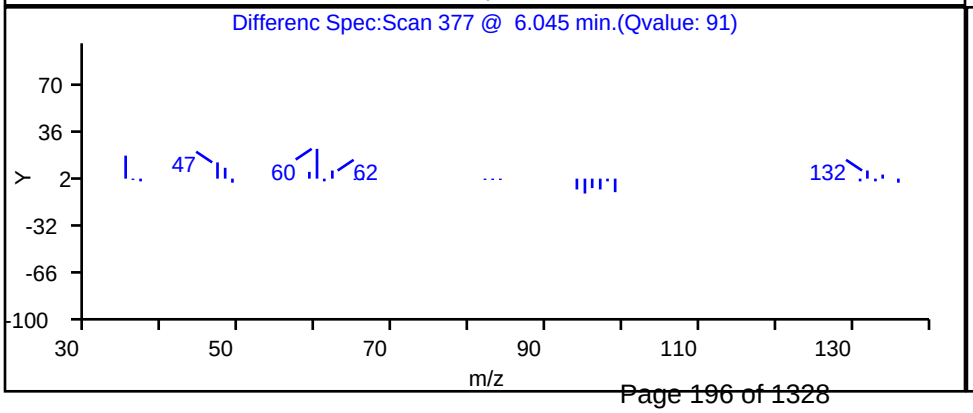


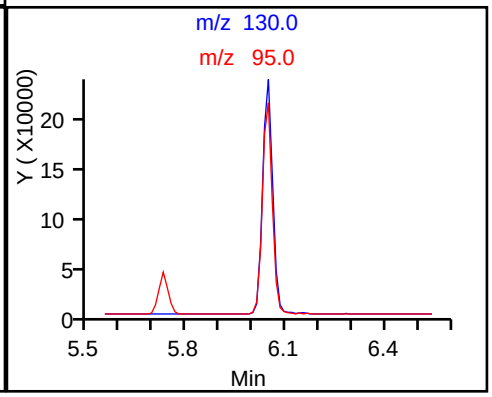












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9I-070617 | Lab Sample ID: 240-81987-2

Matrix: Water | Lab File ID: UX964396.D

Analysis Method: 8260C | Date Collected: 07/06/2017 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 22:13

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	5.8	U	25	5.8
79-34-5	1,1,2,2-Tetrachloroethane	8.0	U	25	8.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	25	10
79-00-5	1,1,2-Trichloroethane	8.5	U	25	8.5
75-34-3	1,1-Dichloroethane	6.3	U	25	6.3
75-35-4	1,1-Dichloroethene	6.8	U	25	6.8
120-82-1	1,2,4-Trichlorobenzene	6.8	U	25	6.8
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	50	12
106-93-4	Ethylene Dibromide	5.8	U	25	5.8
95-50-1	1,2-Dichlorobenzene	6.5	U	25	6.5
107-06-2	1,2-Dichloroethane	7.5	U	25	7.5
78-87-5	1,2-Dichloropropane	7.5	U	25	7.5
541-73-1	1,3-Dichlorobenzene	8.0	U	25	8.0
106-46-7	1,4-Dichlorobenzene	5.8	U	25	5.8
78-93-3	2-Butanone (MEK)	26	U	250	26
591-78-6	2-Hexanone	31	U	250	31
108-10-1	4-Methyl-2-pentanone (MIBK)	18	U	250	18
67-64-1	Acetone	44	U	250	44
71-43-2	Benzene	7.0	U	25	7.0
75-27-4	Dichlorobromomethane	7.5	U	25	7.5
75-25-2	Bromoform	11	U	25	11
74-83-9	Bromomethane	11	U	25	11
75-15-0	Carbon disulfide	8.5	U	25	8.5
56-23-5	Carbon tetrachloride	8.8	U	25	8.8
108-90-7	Chlorobenzene	8.0	U	25	8.0
75-00-3	Chloroethane	10	U	25	10
67-66-3	Chloroform	7.8	U	25	7.8
74-87-3	Chloromethane	11	U	25	11
156-59-2	cis-1,2-Dichloroethene	15	J	25	7.5
10061-01-5	cis-1,3-Dichloropropene	6.5	U	25	6.5
110-82-7	Cyclohexane	11	U	25	11
124-48-1	Chlorodibromomethane	6.3	U	25	6.3
75-71-8	Dichlorodifluoromethane	13	U	25	13
100-41-4	Ethylbenzene	6.5	U	25	6.5
98-82-8	Isopropylbenzene	5.3	U	25	5.3

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9I-070617 | Lab Sample ID: 240-81987-2

Matrix: Water | Lab File ID: UX964396.D

Analysis Method: 8260C | Date Collected: 07/06/2017 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 22:13

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	36	U	250	36
1634-04-4	Methyl tert-butyl ether	7.7	J	25	6.8
108-87-2	Methylcyclohexane	11	U	25	11
75-09-2	Methylene Chloride	13	U	25	13
100-42-5	Styrene	5.8	U	25	5.8
127-18-4	Tetrachloroethene	7.5	U	25	7.5
108-88-3	Toluene	5.8	U	25	5.8
156-60-5	trans-1,2-Dichloroethene	7.3	U	25	7.3
10061-02-6	trans-1,3-Dichloropropene	7.8	U	25	7.8
79-01-6	Trichloroethene	940		25	8.3
75-69-4	Trichlorofluoromethane	13	U	25	13
75-01-4	Vinyl chloride	11	U	25	11
1330-20-7	Xylenes, Total	6.0	U	50	6.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D
Lims ID: 240-81987-A-2
Client ID: SEMW-9I-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 22:13:30 ALS Bottle#: 2 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 240-0066907-011
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:49:02 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:49:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.725	5.723	0.002	98	903658	20.0	
* 2 Chlorobenzene-d5	117	8.411	8.409	0.002	92	759864	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.647	10.645	0.002	95	423785	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.145	5.143	0.002	94	195586	18.7	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.441	5.439	0.002	96	303099	18.4	
$ 6 Toluene-d8 (Surr)	98	7.097	7.096	0.001	96	881415	21.1	
$ 7 4-Bromofluorobenzene (Surr	95	9.523	9.521	0.002	89	388268	21.3	
9 Dichlorodifluoromethane	85		1.700				ND	
10 Chloromethane	50		1.877				ND	
11 Vinyl chloride	62		2.008				ND	
13 Bromomethane	94		2.363				ND	
15 Chloroethane	64		2.481				ND	
17 Trichlorofluoromethane	101		2.718				ND	
24 1,1-Dichloroethene	61		3.215				ND	
23 Acetone	43	3.228	3.226	0.002	98	15329	0.6133	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226				ND	
26 Carbon disulfide	76		3.428				ND	
29 Methyl acetate	43		3.522				ND	
30 Methylene Chloride	49	3.666	3.676	-0.010	89	14813	0.4676	
34 trans-1,2-Dichloroethene	61		3.877				ND	
33 Methyl tert-butyl ether	73	3.867	3.877	-0.010	94	10402	0.3083	
36 1,1-Dichloroethane	63		4.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.743	4.741	0.002	85	14796	0.5946	
41 2-Butanone (MEK)	43		4.741				ND	
49 Chloroform	83	5.015	5.001	0.014	24	3889	0.1992	
50 1,1,1-Trichloroethane	97		5.179				ND	
51 Cyclohexane	84		5.238				ND	
53 Carbon tetrachloride	117		5.333				ND	
56 1,2-Dichloroethane	62		5.498				ND	
55 Benzene	78		5.498				ND	
60 Trichloroethene	130	6.044	6.043	0.001	91	477544	37.5	
62 Methylcyclohexane	83		6.220				ND	
63 1,2-Dichloropropane	63		6.232				ND	
67 Dichlorobromomethane	83		6.457				ND	
71 cis-1,3-Dichloropropene	75		6.847				ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966				ND	
73 Toluene	91		7.155				ND	
74 trans-1,3-Dichloropropene	75		7.332				ND	
76 1,1,2-Trichloroethane	97		7.498				ND	
78 Tetrachloroethene	166		7.664				ND	
80 2-Hexanone	43		7.711				ND	
82 Chlorodibromomethane	129		7.877				ND	
83 Ethylene Dibromide	107		7.983				ND	
85 Chlorobenzene	112		8.445				ND	
87 Ethylbenzene	106		8.539				ND	
88 m-Xylene & p-Xylene	106		8.646				ND	
89 o-Xylene	106		9.024				ND	
90 Styrene	104		9.024				ND	
91 Bromoform	173		9.214				ND	
92 Isopropylbenzene	105		9.368				ND	
94 1,1,2,2-Tetrachloroethane	83		9.640				ND	
108 1,3-Dichlorobenzene	146		10.586				ND	
110 1,4-Dichlorobenzene	146		10.669				ND	
114 1,2-Dichlorobenzene	146		11.048				ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817				ND	
117 1,2,4-Trichlorobenzene	180		12.645				ND	
S 131 Xylenes, Total	106		17.230				ND	

Reagents:

vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

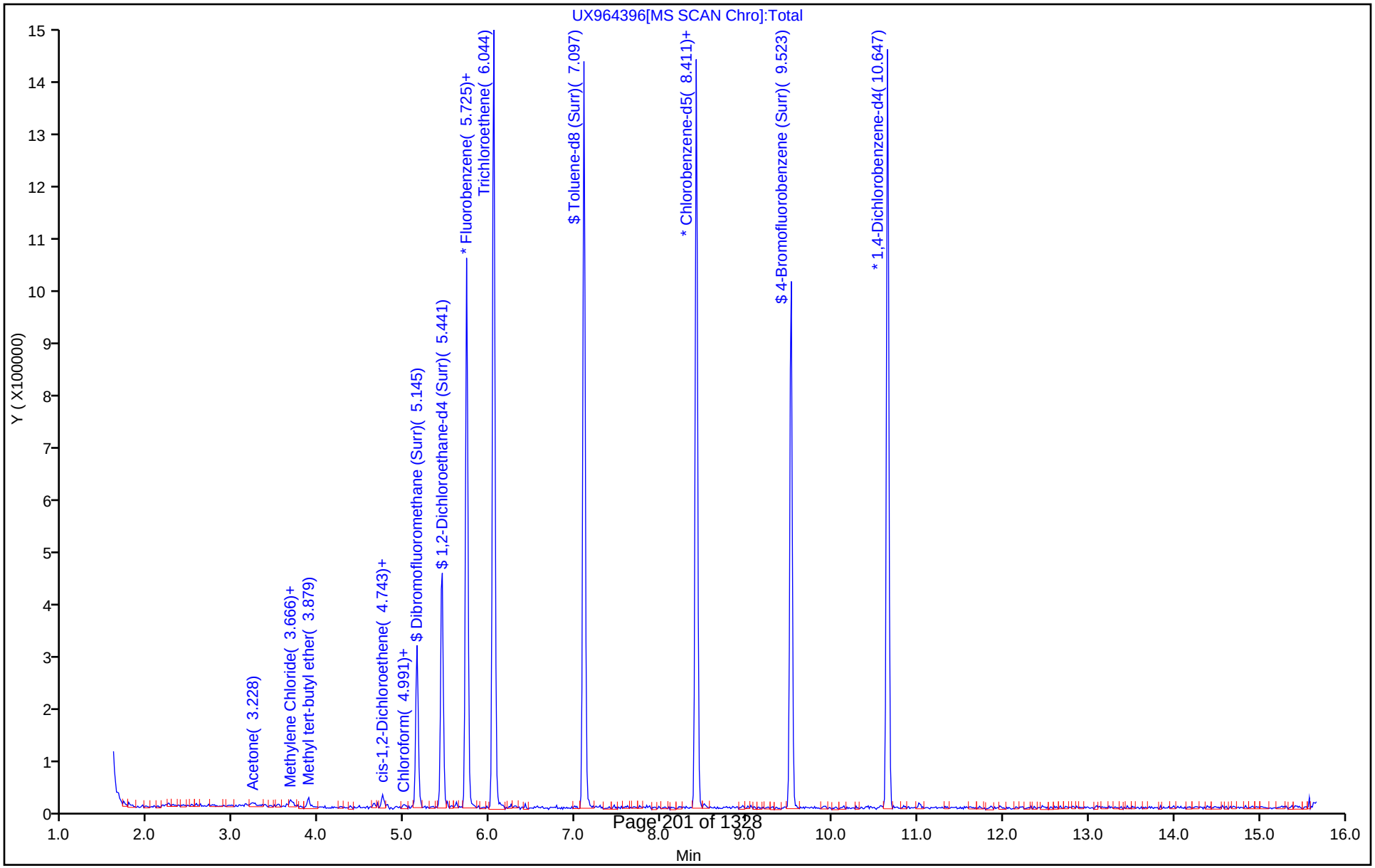
Report Date: 14-Jul-2017 13:49:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D

Injection Date:	13-Jul-2017 22:13:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-81987-A-2	Lab Sample ID:	240-81987-2	Worklist Smp#:	11
Client ID:	SEMW-9I-070617				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	2
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D
Lims ID: 240-81987-A-2
Client ID: SEMW-9I-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 22:13:30 ALS Bottle#: 2 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 240-0066907-011
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:49:02 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:49:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	18.7	93.51
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.4	92.10
$ 6 Toluene-d8 (Surr)	20.0	21.1	105.59
$ 7 4-Bromofluorobenzene (Surr)	20.0	21.3	106.59

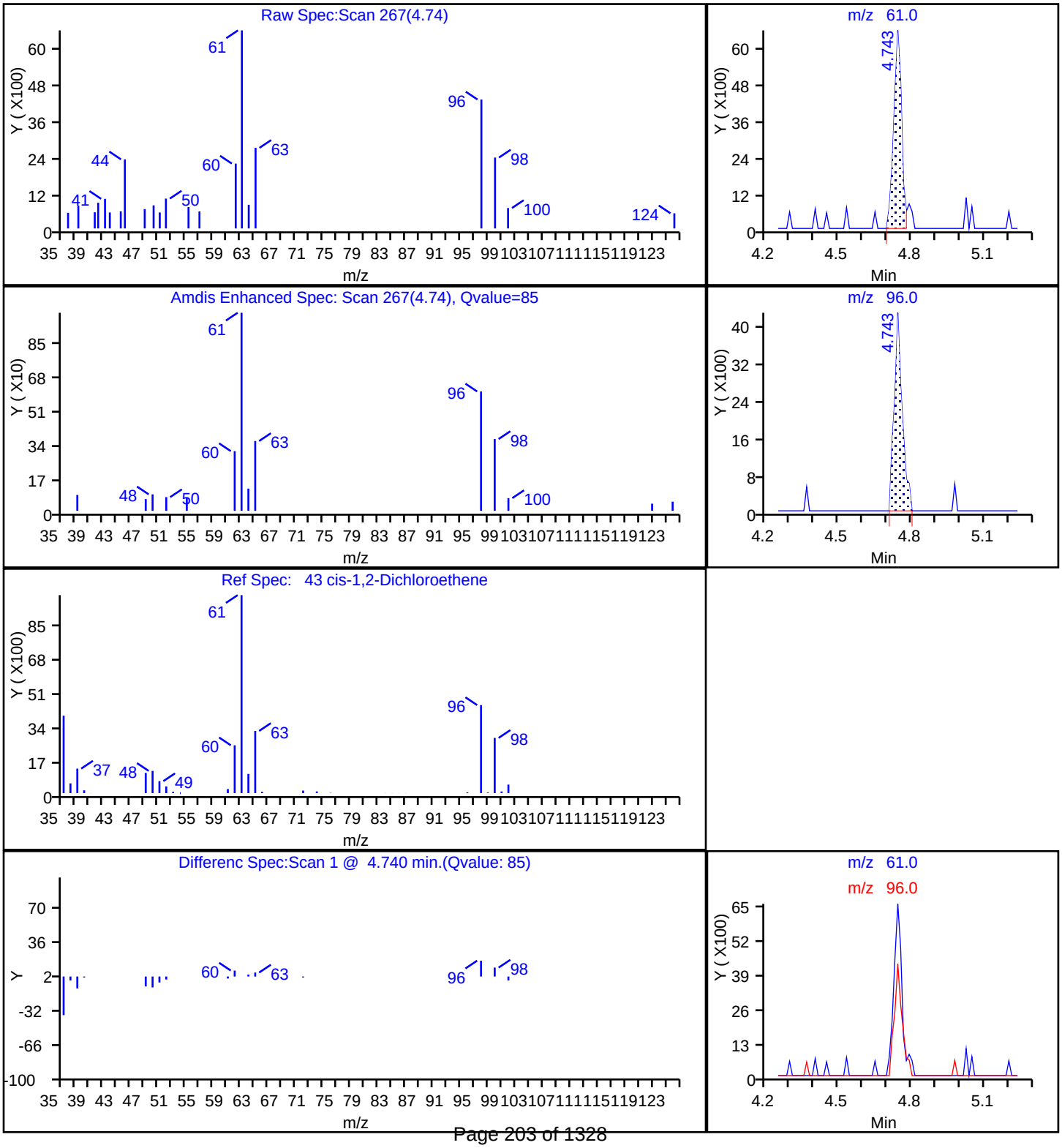
Report Date: 14-Jul-2017 13:49:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D

Injection Date:	13-Jul-2017 22:13:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-2	Lab Sample ID:	240-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	001904	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

43 cis-1,2-Dichloroethene, CAS: 156-59-2



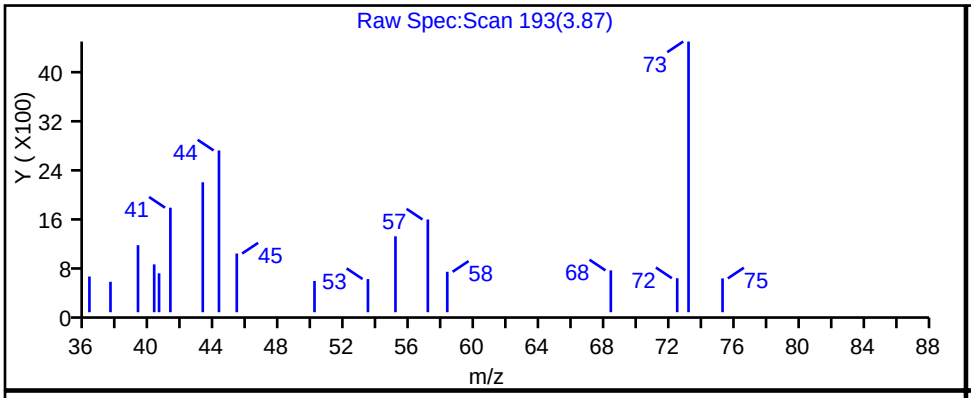
Report Date: 14-Jul-2017 13:49:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

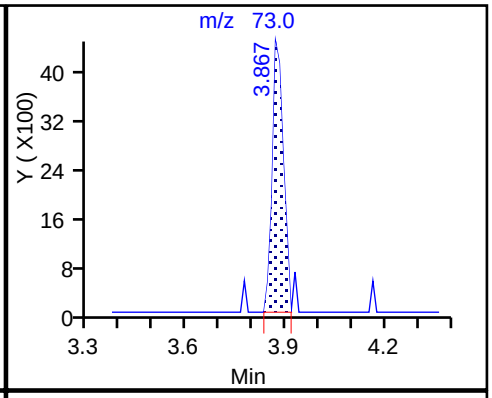
TestAmerica Canton

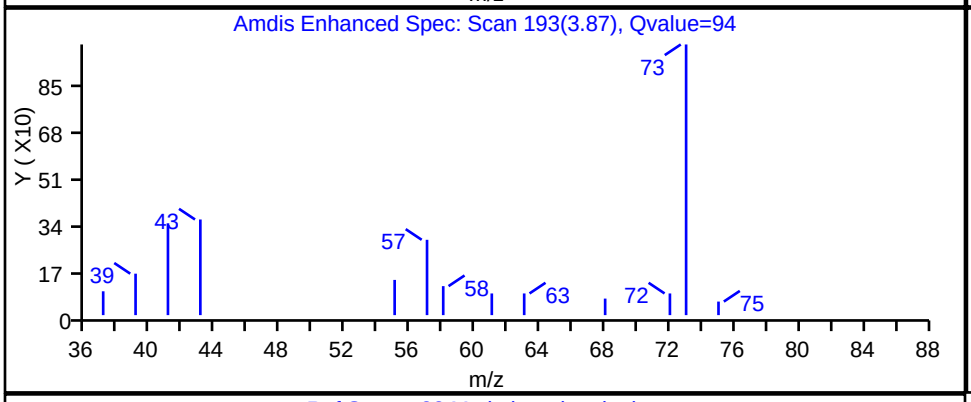
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D

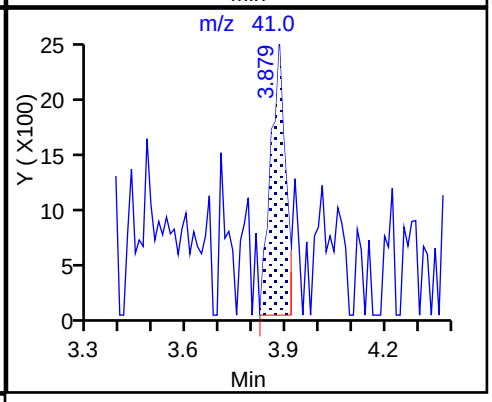
Injection Date:	13-Jul-2017 22:13:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-2	Lab Sample ID:	240-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	001904	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

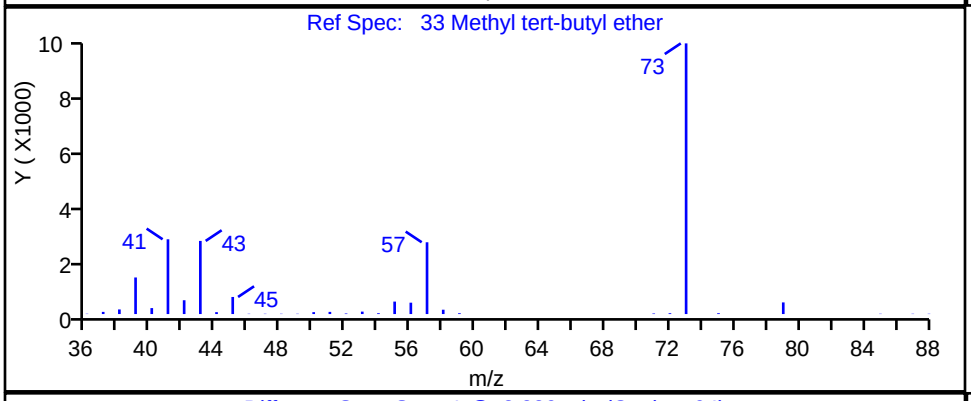
33 Methyl tert-butyl ether, CAS: 1634-04-4

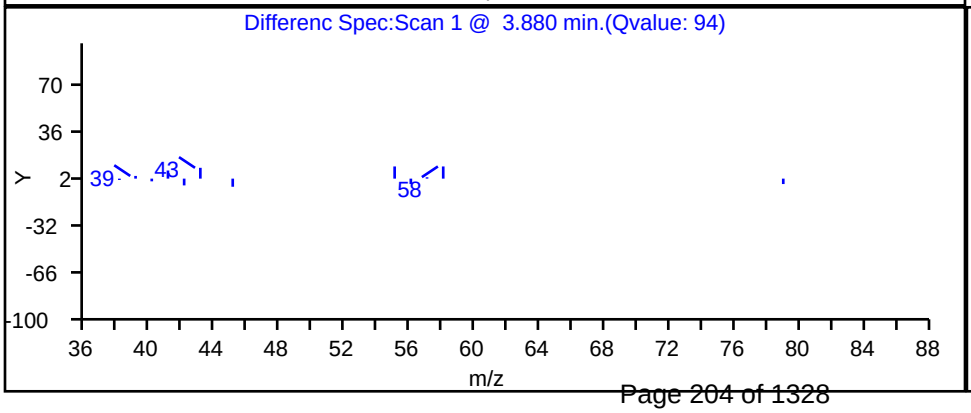


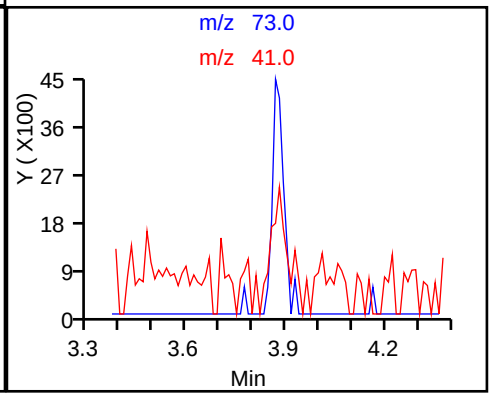












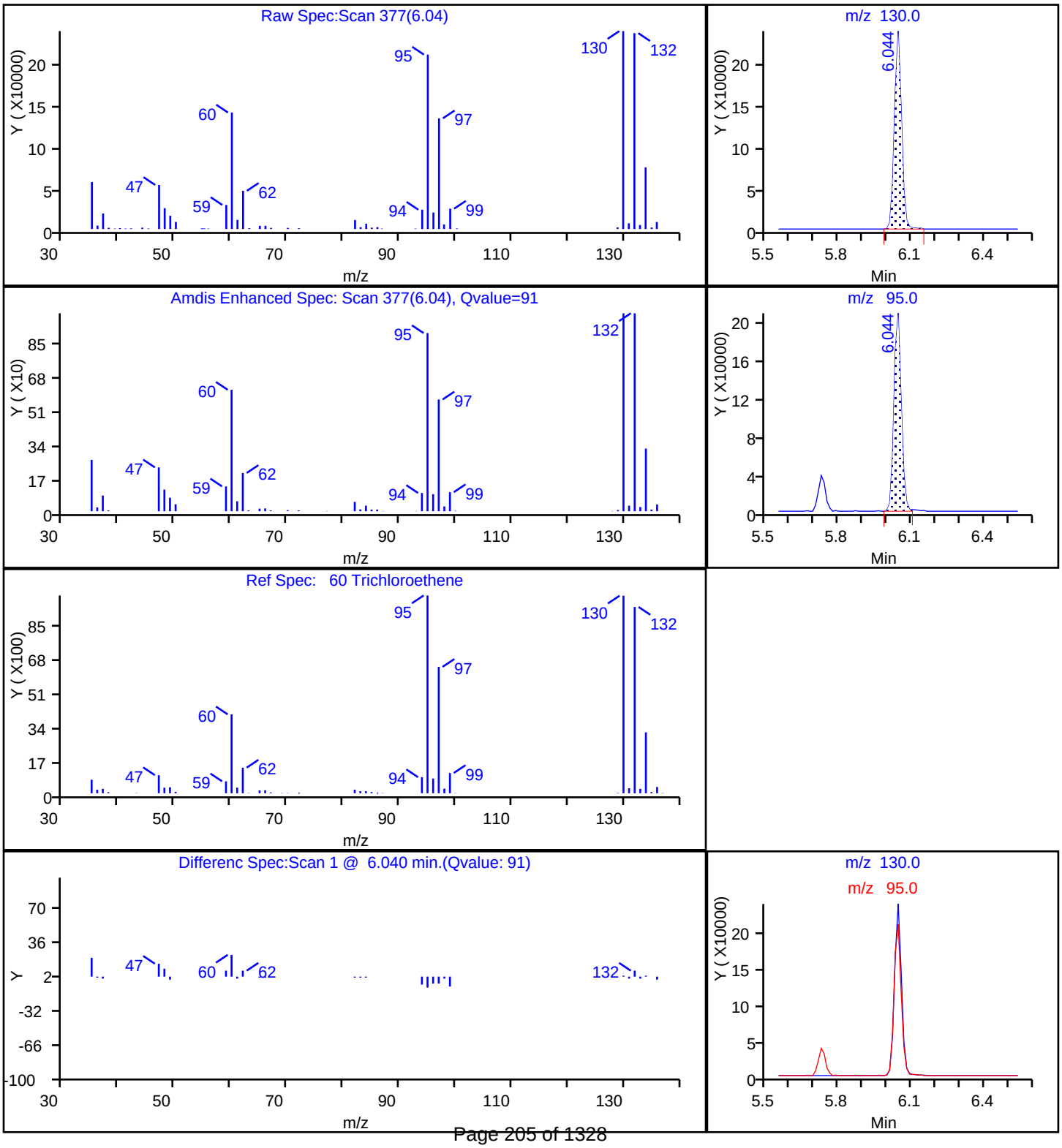
Report Date: 14-Jul-2017 13:49:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964396.D

Injection Date:	13-Jul-2017 22:13:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-2	Lab Sample ID:	240-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	001904	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-8I-070617 | Lab Sample ID: 240-81987-3

Matrix: Water | Lab File ID: UX964397.D

Analysis Method: 8260C | Date Collected: 07/06/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 22:37

Soil Aliquot Vol: | Dilution Factor: 62.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	14	U	63	14
79-34-5	1,1,2,2-Tetrachloroethane	20	U	63	20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	26	U	63	26
79-00-5	1,1,2-Trichloroethane	21	U	63	21
75-34-3	1,1-Dichloroethane	16	U	63	16
75-35-4	1,1-Dichloroethene	17	U	63	17
120-82-1	1,2,4-Trichlorobenzene	17	U	63	17
96-12-8	1,2-Dibromo-3-Chloropropane	29	U	130	29
106-93-4	Ethylene Dibromide	14	U	63	14
95-50-1	1,2-Dichlorobenzene	16	U	63	16
107-06-2	1,2-Dichloroethane	19	U	63	19
78-87-5	1,2-Dichloropropane	19	U	63	19
541-73-1	1,3-Dichlorobenzene	20	U	63	20
106-46-7	1,4-Dichlorobenzene	14	U	63	14
78-93-3	2-Butanone (MEK)	64	U	630	64
591-78-6	2-Hexanone	77	U	630	77
108-10-1	4-Methyl-2-pentanone (MIBK)	44	U	630	44
67-64-1	Acetone	110	U	630	110
71-43-2	Benzene	18	U	63	18
75-27-4	Dichlorobromomethane	19	U	63	19
75-25-2	Bromoform	27	U	63	27
74-83-9	Bromomethane	26	U	63	26
75-15-0	Carbon disulfide	21	U	63	21
56-23-5	Carbon tetrachloride	22	U	63	22
108-90-7	Chlorobenzene	20	U	63	20
75-00-3	Chloroethane	26	U	63	26
67-66-3	Chloroform	19	U	63	19
74-87-3	Chloromethane	27	U	63	27
156-59-2	cis-1,2-Dichloroethene	1500		63	19
10061-01-5	cis-1,3-Dichloropropene	16	U	63	16
110-82-7	Cyclohexane	28	U	63	28
124-48-1	Chlorodibromomethane	16	U	63	16
75-71-8	Dichlorodifluoromethane	31	U	63	31
100-41-4	Ethylbenzene	16	U	63	16
98-82-8	Isopropylbenzene	13	U	63	13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-8I-070617 | Lab Sample ID: 240-81987-3

Matrix: Water | Lab File ID: UX964397.D

Analysis Method: 8260C | Date Collected: 07/06/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 22:37

Soil Aliquot Vol: | Dilution Factor: 62.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	89	U	630	89
1634-04-4	Methyl tert-butyl ether	17	U	63	17
108-87-2	Methylcyclohexane	28	U	63	28
75-09-2	Methylene Chloride	34	J B	63	33
100-42-5	Styrene	14	U	63	14
127-18-4	Tetrachloroethene	19	U	63	19
108-88-3	Toluene	14	U	63	14
156-60-5	trans-1,2-Dichloroethene	18	U	63	18
10061-02-6	trans-1,3-Dichloropropene	19	U	63	19
79-01-6	Trichloroethene	1100		63	21
75-69-4	Trichlorofluoromethane	31	U	63	31
75-01-4	Vinyl chloride	28	U	63	28
1330-20-7	Xylenes, Total	15	U	130	15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	104		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D
Lims ID: 240-81987-A-3
Client ID: SEMW-8I-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 22:37:30 ALS Bottle#: 3 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 62.5000
Sample Info: 240-0066907-012
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:49:43 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:49:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	97	897925	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	94	772756	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.645	0.001	95	423777	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	93	199373	19.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	96	307090	18.8	
$ 6 Toluene-d8 (Surr)	98	7.096	7.096	0.000	96	898619	21.2	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.521	0.001	88	386031	20.8	
9 Dichlorodifluoromethane	85		1.700				ND	
10 Chloromethane	50		1.877				ND	
11 Vinyl chloride	62		2.008				ND	
13 Bromomethane	94		2.363				ND	
15 Chloroethane	64		2.481				ND	
17 Trichlorofluoromethane	101		2.718				ND	
24 1,1-Dichloroethene	61	3.239	3.215	0.024	42	3742	0.1807	
23 Acetone	43	3.215	3.226	-0.011	95	14280	0.4436	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226				ND	
26 Carbon disulfide	76		3.428				ND	
29 Methyl acetate	43		3.522				ND	
30 Methylene Chloride	49	3.665	3.676	-0.011	94	17155	0.5450	
34 trans-1,2-Dichloroethene	61		3.877				ND	
33 Methyl tert-butyl ether	73		3.877				ND	
36 1,1-Dichloroethane	63		4.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.742	4.741	0.001	89	600217	24.3	
41 2-Butanone (MEK)	43	4.789	4.741	0.048	54	6484	0.5719	
49 Chloroform	83		5.001				ND	
50 1,1,1-Trichloroethane	97		5.179				ND	
51 Cyclohexane	84		5.238				ND	
53 Carbon tetrachloride	117		5.333				ND	
56 1,2-Dichloroethane	62		5.498				ND	
55 Benzene	78		5.498				ND	
60 Trichloroethene	130	6.043	6.043	0.000	91	217136	17.1	
62 Methylcyclohexane	83		6.220				ND	
63 1,2-Dichloropropane	63		6.232				ND	
67 Dichlorobromomethane	83		6.457				ND	
71 cis-1,3-Dichloropropene	75		6.847				ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966				ND	
73 Toluene	91		7.155				ND	
74 trans-1,3-Dichloropropene	75		7.332				ND	
76 1,1,2-Trichloroethane	97		7.498				ND	
78 Tetrachloroethene	166		7.664				ND	
80 2-Hexanone	43		7.711				ND	
82 Chlorodibromomethane	129		7.877				ND	
83 Ethylene Dibromide	107		7.983				ND	
85 Chlorobenzene	112		8.445				ND	
87 Ethylbenzene	106		8.539				ND	
88 m-Xylene & p-Xylene	106		8.646				ND	
89 o-Xylene	106		9.024				ND	
90 Styrene	104		9.024				ND	
91 Bromoform	173		9.214				ND	
92 Isopropylbenzene	105		9.368				ND	
94 1,1,2,2-Tetrachloroethane	83		9.640				ND	
108 1,3-Dichlorobenzene	146		10.586				ND	
110 1,4-Dichlorobenzene	146		10.669				ND	
114 1,2-Dichlorobenzene	146		11.048				ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817				ND	
117 1,2,4-Trichlorobenzene	180		12.645				ND	
S 131 Xylenes, Total	106		17.230				ND	

Reagents:

vm100ss_stk_00026	Amount Added: 1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added: 0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added: 1.00	Units: uL	Run Reagent

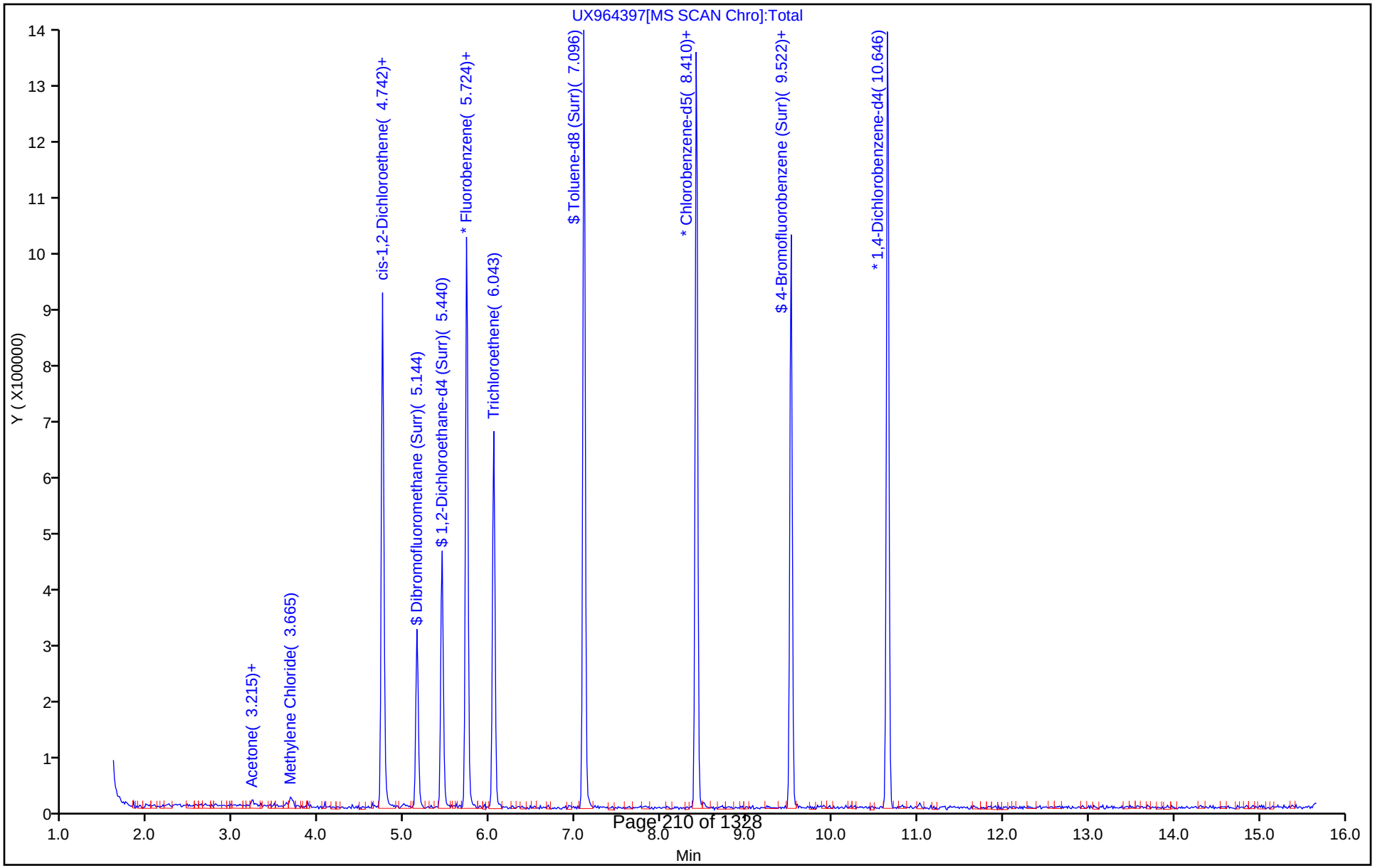
Report Date: 14-Jul-2017 13:49:44 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D

Injection Date:	13-Jul-2017 22:37:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-81987-A-3	Lab Sample ID:	240-81987-3	Worklist Smp#:	12
Client ID:	SEMW-8I-070617				
Purge Vol:	5.000 mL	Dil. Factor:	62.5000	ALS Bottle#:	3
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D
Lims ID: 240-81987-A-3
Client ID: SEMW-8I-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 22:37:30 ALS Bottle#: 3 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 62.5000
Sample Info: 240-0066907-012
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:49:43 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:49:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	19.2	95.93
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.8	93.91
$ 6 Toluene-d8 (Surr)	20.0	21.2	105.86
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.8	104.20

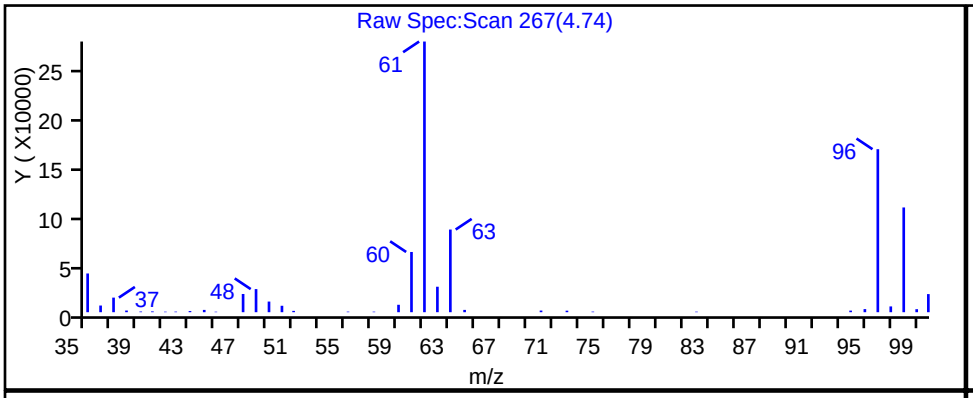
Report Date: 14-Jul-2017 13:49:44 Chrom Revision: 2.2 20-Jun-2017 07:42:38

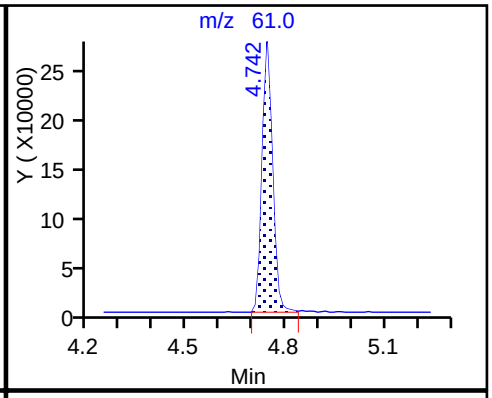
TestAmerica Canton

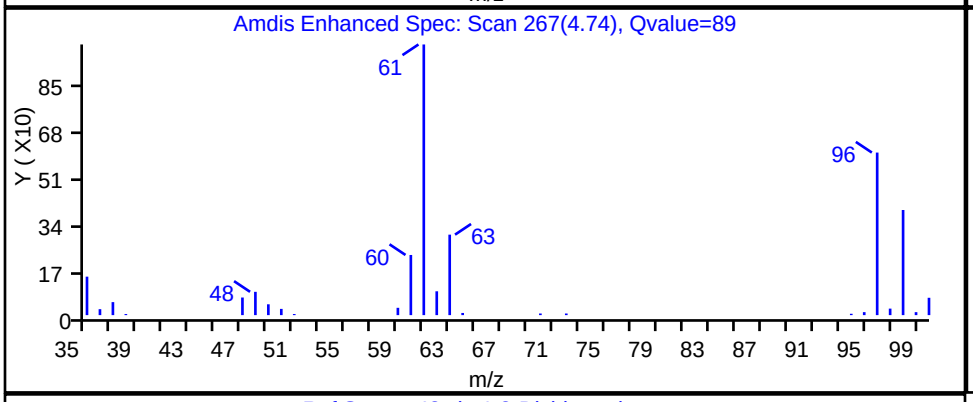
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D

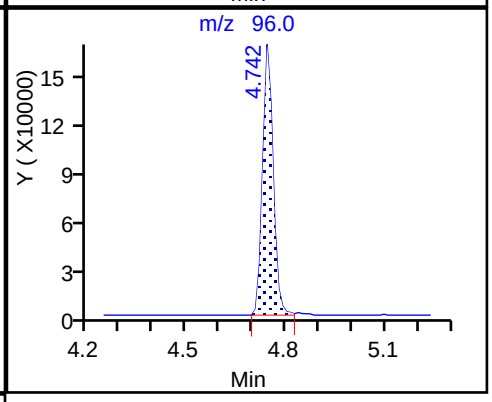
Injection Date:	13-Jul-2017 22:37:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-3	Lab Sample ID:	240-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	001904	ALS Bottle#:	3	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	62.5000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

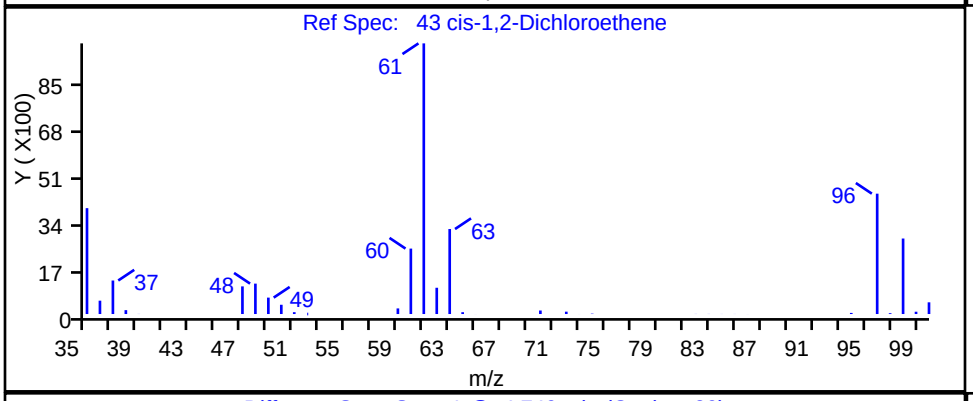
43 cis-1,2-Dichloroethene, CAS: 156-59-2

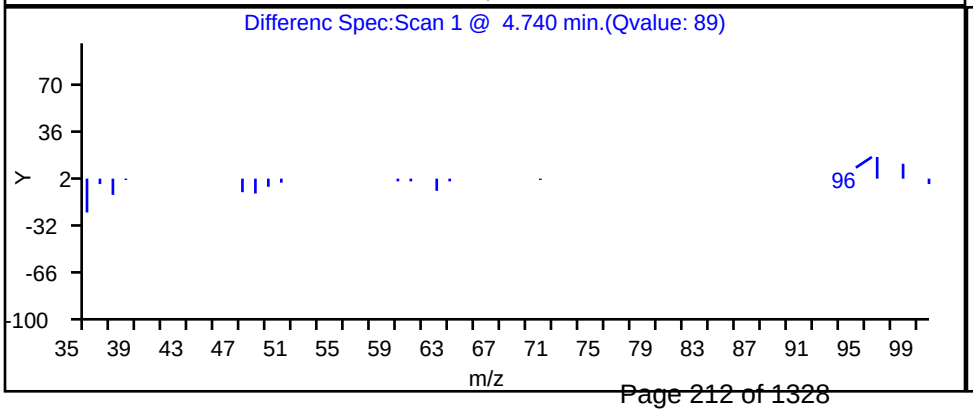


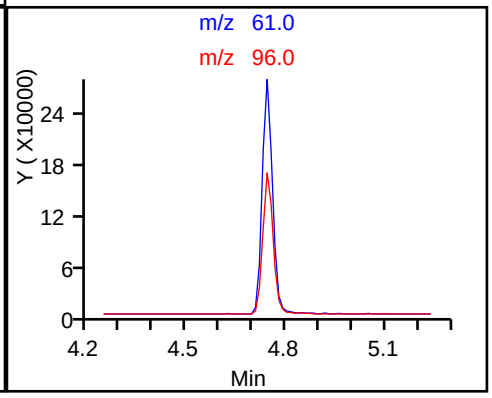












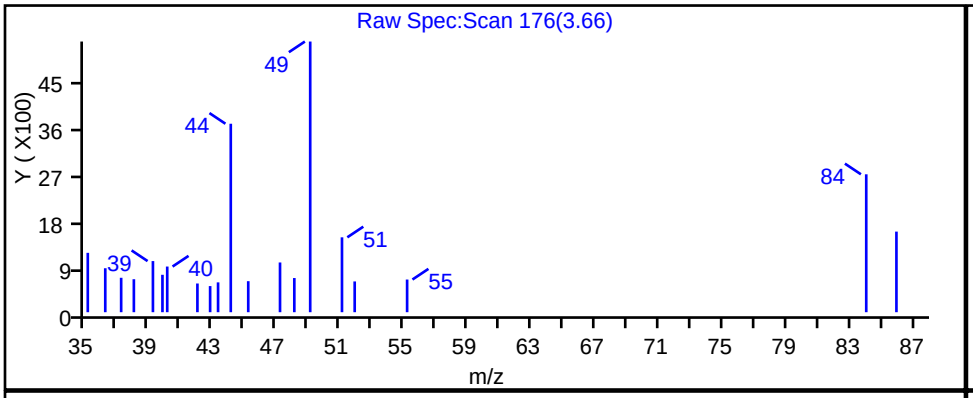
Report Date: 14-Jul-2017 13:49:44 Chrom Revision: 2.2 20-Jun-2017 07:42:38

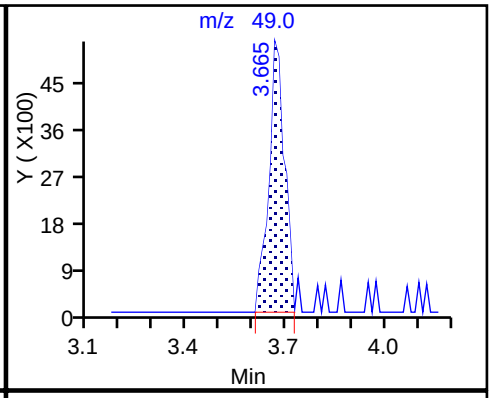
TestAmerica Canton

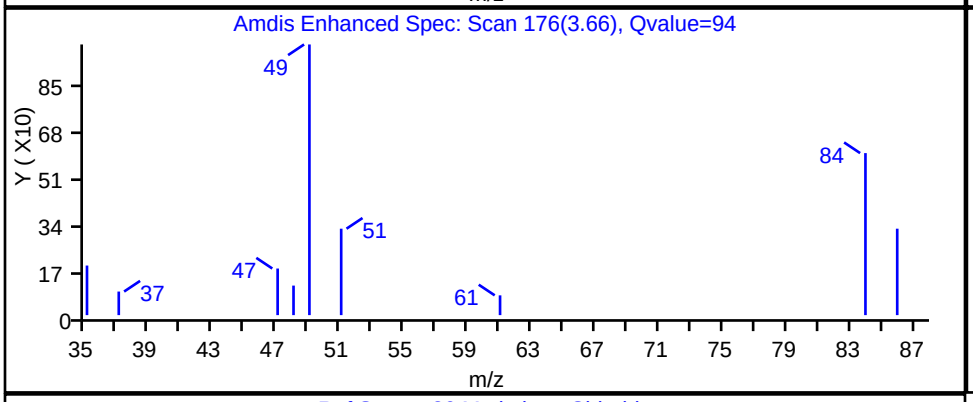
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D

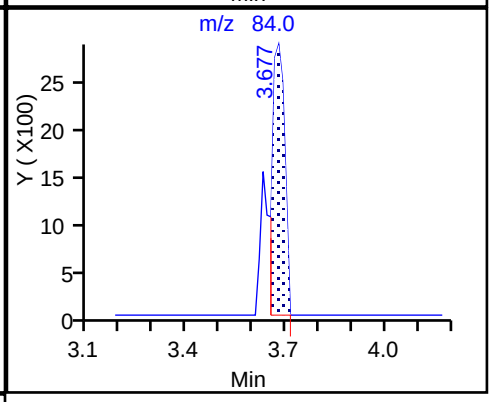
Injection Date:	13-Jul-2017 22:37:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-3	Lab Sample ID:	240-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	001904	ALS Bottle#:	3	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	62.5000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

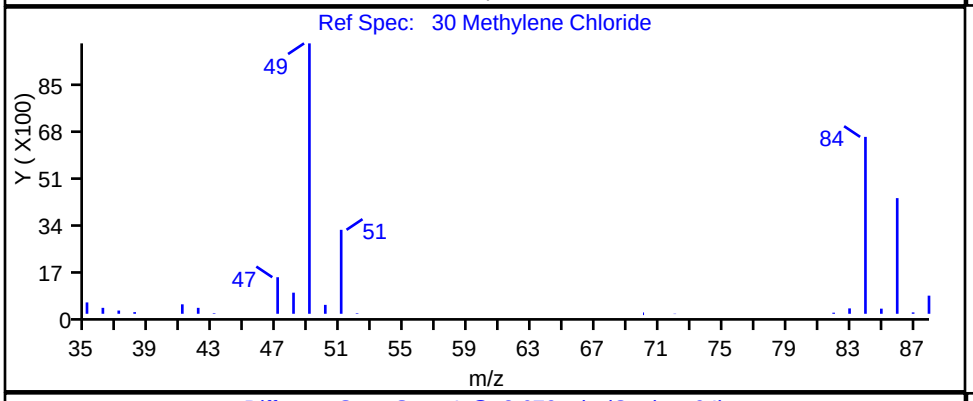
30 Methylene Chloride, CAS: 75-09-2

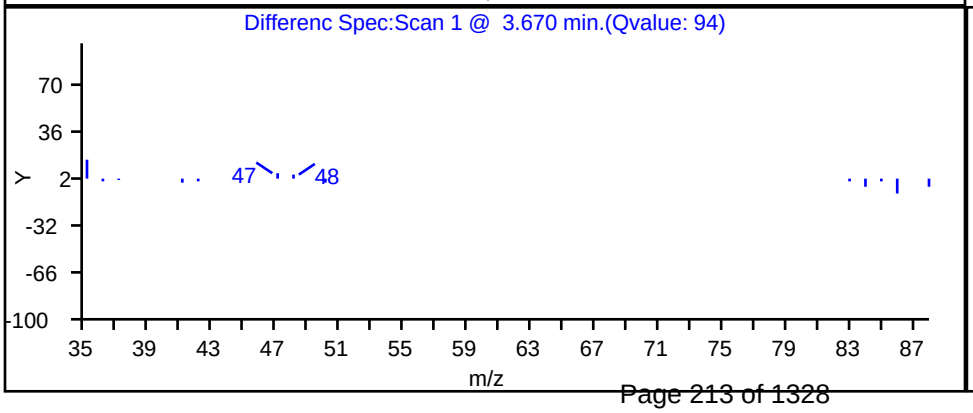


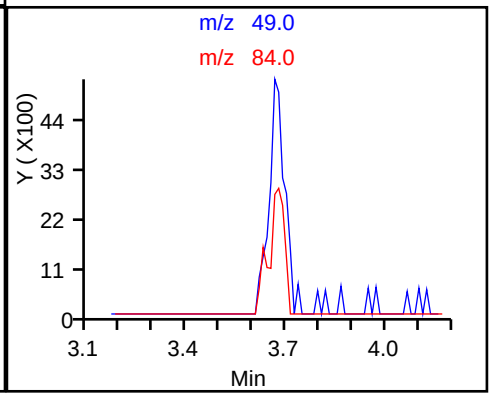












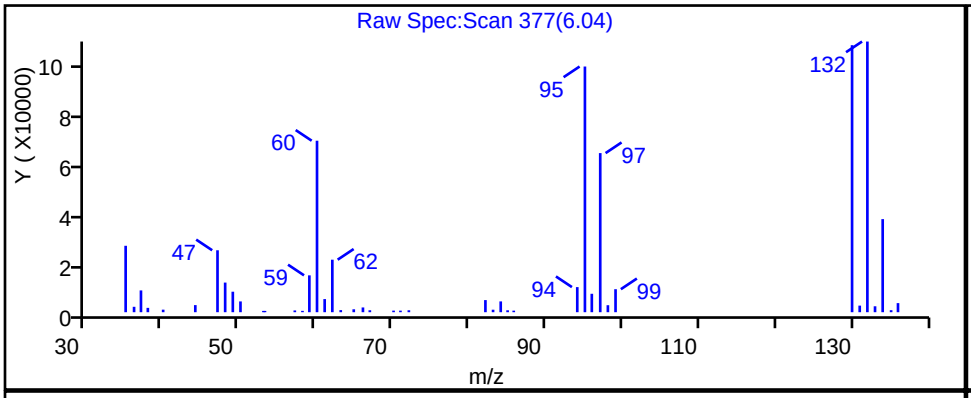
Report Date: 14-Jul-2017 13:49:44 Chrom Revision: 2.2 20-Jun-2017 07:42:38

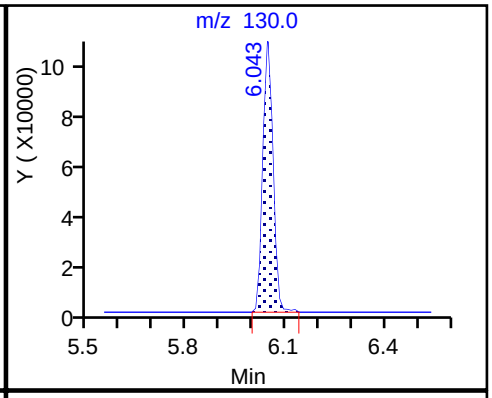
TestAmerica Canton

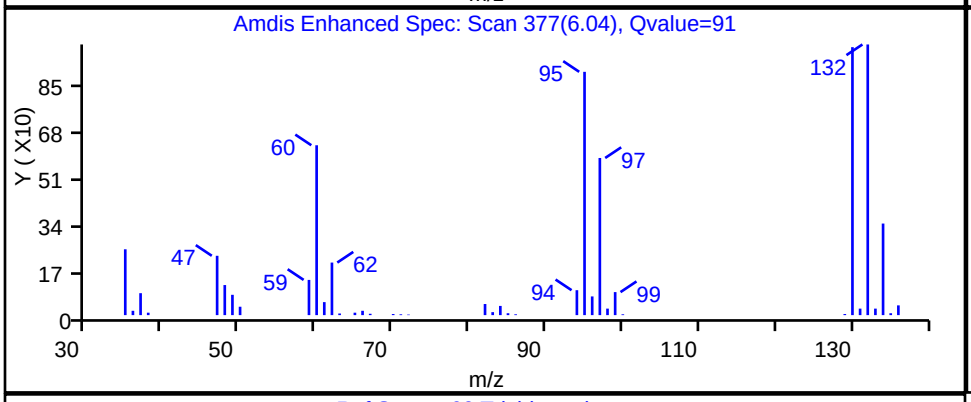
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964397.D

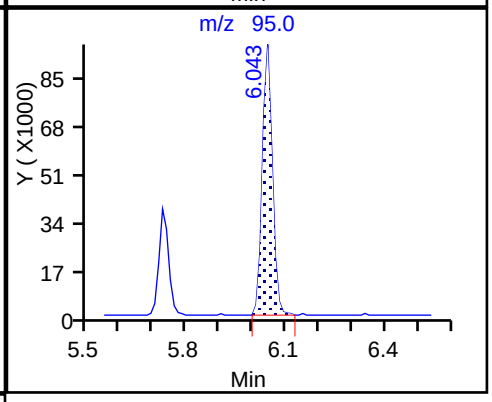
Injection Date:	13-Jul-2017 22:37:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-3	Lab Sample ID:	240-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	001904	ALS Bottle#:	3	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	62.5000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

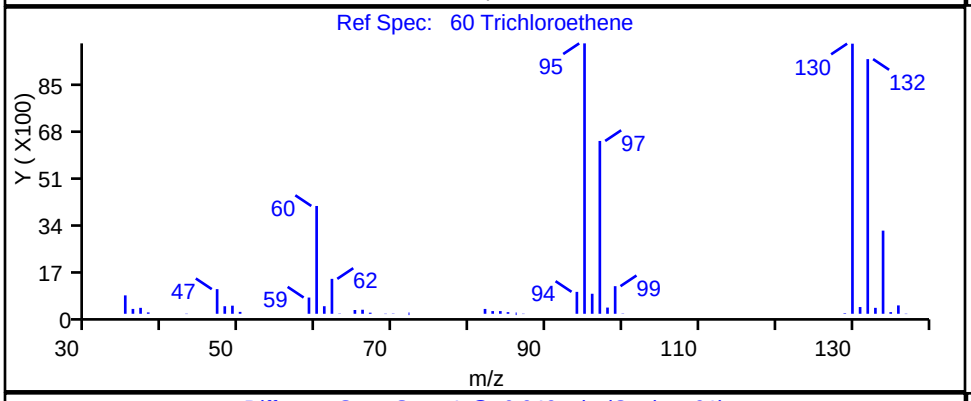
60 Trichloroethene, CAS: 79-01-6

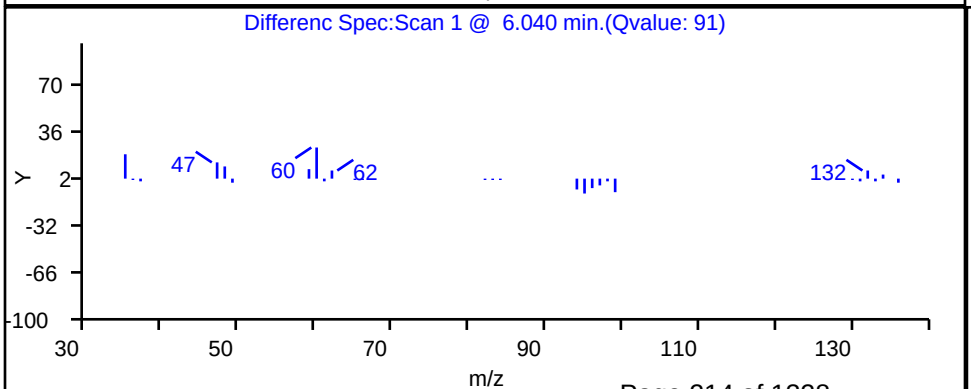


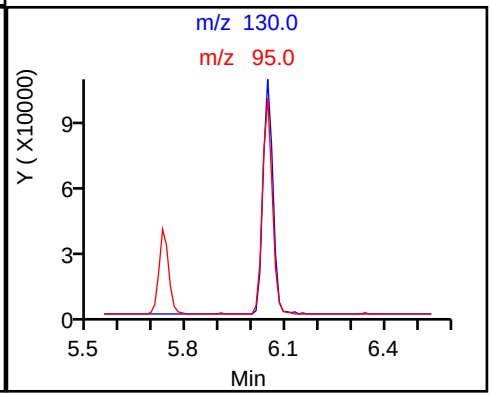












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-7I-070617 | Lab Sample ID: 240-81987-4

Matrix: Water | Lab File ID: UX964398.D

Analysis Method: 8260C | Date Collected: 07/06/2017 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 23:01

Soil Aliquot Vol: | Dilution Factor: 1250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	290	U	1300	290
79-34-5	1,1,2,2-Tetrachloroethane	400	U	1300	400
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	510	U	1300	510
79-00-5	1,1,2-Trichloroethane	430	U	1300	430
75-34-3	1,1-Dichloroethane	310	U	1300	310
75-35-4	1,1-Dichloroethene	340	U	1300	340
120-82-1	1,2,4-Trichlorobenzene	340	U	1300	340
96-12-8	1,2-Dibromo-3-Chloropropane	590	U	2500	590
106-93-4	Ethylene Dibromide	290	U	1300	290
95-50-1	1,2-Dichlorobenzene	330	U	1300	330
107-06-2	1,2-Dichloroethane	380	U	1300	380
78-87-5	1,2-Dichloropropane	380	U	1300	380
541-73-1	1,3-Dichlorobenzene	400	U	1300	400
106-46-7	1,4-Dichlorobenzene	290	U	1300	290
78-93-3	2-Butanone (MEK)	1300	U	13000	1300
591-78-6	2-Hexanone	1500	U	13000	1500
108-10-1	4-Methyl-2-pentanone (MIBK)	890	U	13000	890
67-64-1	Acetone	2200	U	13000	2200
71-43-2	Benzene	350	U	1300	350
75-27-4	Dichlorobromomethane	380	U	1300	380
75-25-2	Bromoform	540	U	1300	540
74-83-9	Bromomethane	530	U	1300	530
75-15-0	Carbon disulfide	430	U	1300	430
56-23-5	Carbon tetrachloride	440	U	1300	440
108-90-7	Chlorobenzene	400	U	1300	400
75-00-3	Chloroethane	510	U	1300	510
67-66-3	Chloroform	390	U	1300	390
74-87-3	Chloromethane	540	U	1300	540
156-59-2	cis-1,2-Dichloroethene	380	U	1300	380
10061-01-5	cis-1,3-Dichloropropene	330	U	1300	330
110-82-7	Cyclohexane	550	U	1300	550
124-48-1	Chlorodibromomethane	310	U	1300	310
75-71-8	Dichlorodifluoromethane	630	U	1300	630
100-41-4	Ethylbenzene	330	U	1300	330
98-82-8	Isopropylbenzene	260	U	1300	260

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-7I-070617 | Lab Sample ID: 240-81987-4

Matrix: Water | Lab File ID: UX964398.D

Analysis Method: 8260C | Date Collected: 07/06/2017 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 23:01

Soil Aliquot Vol: | Dilution Factor: 1250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1800	U	13000	1800
1634-04-4	Methyl tert-butyl ether	340	U	1300	340
108-87-2	Methylcyclohexane	560	U	1300	560
75-09-2	Methylene Chloride	790	J B	1300	660
100-42-5	Styrene	290	U	1300	290
127-18-4	Tetrachloroethene	380	U	1300	380
108-88-3	Toluene	290	U	1300	290
156-60-5	trans-1,2-Dichloroethene	360	U	1300	360
10061-02-6	trans-1,3-Dichloropropene	390	U	1300	390
79-01-6	Trichloroethene	26000		1300	410
75-69-4	Trichlorofluoromethane	630	U	1300	630
75-01-4	Vinyl chloride	560	U	1300	560
1330-20-7	Xylenes, Total	300	U	2500	300

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D
Lims ID: 240-81987-A-4
Client ID: SEMW-7I-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 23:01:30 ALS Bottle#: 4 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1250.0000
Sample Info: 240-0066907-013
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:50:19 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:50:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.723	5.723	0.000	98	903153	20.0	
* 2 Chlorobenzene-d5	117	8.409	8.409	0.000	93	766698	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.657	10.645	0.012	95	433275	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.143	5.143	0.000	93	198438	19.0	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.439	5.439	0.000	96	304895	18.5	
$ 6 Toluene-d8 (Surr)	98	7.096	7.096	0.000	95	872439	20.7	
$ 7 4-Bromofluorobenzene (Surr	95	9.521	9.521	0.000	88	373567	20.3	
9 Dichlorodifluoromethane	85		1.700				ND	
10 Chloromethane	50		1.877				ND	
11 Vinyl chloride	62		2.008				ND	
13 Bromomethane	94		2.363				ND	
15 Chloroethane	64		2.481				ND	
17 Trichlorofluoromethane	101		2.718				ND	
24 1,1-Dichloroethene	61		3.215				ND	
23 Acetone	43	3.226	3.226	0.000	92	16481	0.8190	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226				ND	
26 Carbon disulfide	76		3.428				ND	
29 Methyl acetate	43		3.522				ND	
30 Methylene Chloride	49	3.688	3.676	0.012	88	19918	0.6292	
34 trans-1,2-Dichloroethene	61		3.877				ND	
33 Methyl tert-butyl ether	73		3.877				ND	
36 1,1-Dichloroethane	63		4.244				ND	

Report Date: 14-Jul-2017 13:50:20 Chrom Revision: 2.2 20-Jun-2017 07:42:38

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.741	4.741	0.000	35	5177	0.2081	
41 2-Butanone (MEK)	43		4.741				ND	
49 Chloroform	83		5.001				ND	
50 1,1,1-Trichloroethane	97		5.179				ND	
51 Cyclohexane	84		5.238				ND	
53 Carbon tetrachloride	117		5.333				ND	
56 1,2-Dichloroethane	62		5.498				ND	
55 Benzene	78		5.498				ND	
60 Trichloroethene	130	6.043	6.043	-0.001	90	265089	20.8	
62 Methylcyclohexane	83		6.220				ND	
63 1,2-Dichloropropane	63		6.232				ND	
67 Dichlorobromomethane	83		6.457				ND	
71 cis-1,3-Dichloropropene	75		6.847				ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966				ND	
73 Toluene	91		7.155				ND	
74 trans-1,3-Dichloropropene	75		7.332				ND	
76 1,1,2-Trichloroethane	97		7.498				ND	
78 Tetrachloroethene	166		7.664				ND	
80 2-Hexanone	43		7.711				ND	
82 Chlorodibromomethane	129		7.877				ND	
83 Ethylene Dibromide	107		7.983				ND	
85 Chlorobenzene	112		8.445				ND	
87 Ethylbenzene	106		8.539				ND	
88 m-Xylene & p-Xylene	106		8.646				ND	
89 o-Xylene	106		9.024				ND	
90 Styrene	104		9.024				ND	
91 Bromoform	173		9.214				ND	
92 Isopropylbenzene	105		9.368				ND	
94 1,1,2,2-Tetrachloroethane	83		9.640				ND	
108 1,3-Dichlorobenzene	146		10.586				ND	
110 1,4-Dichlorobenzene	146		10.669				ND	
114 1,2-Dichlorobenzene	146		11.048				ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817				ND	
117 1,2,4-Trichlorobenzene	180		12.645				ND	
S 131 Xylenes, Total	106		17.230				ND	

Reagents:

vm100ss_stk_00026	Amount Added: 1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added: 0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added: 1.00	Units: uL	Run Reagent

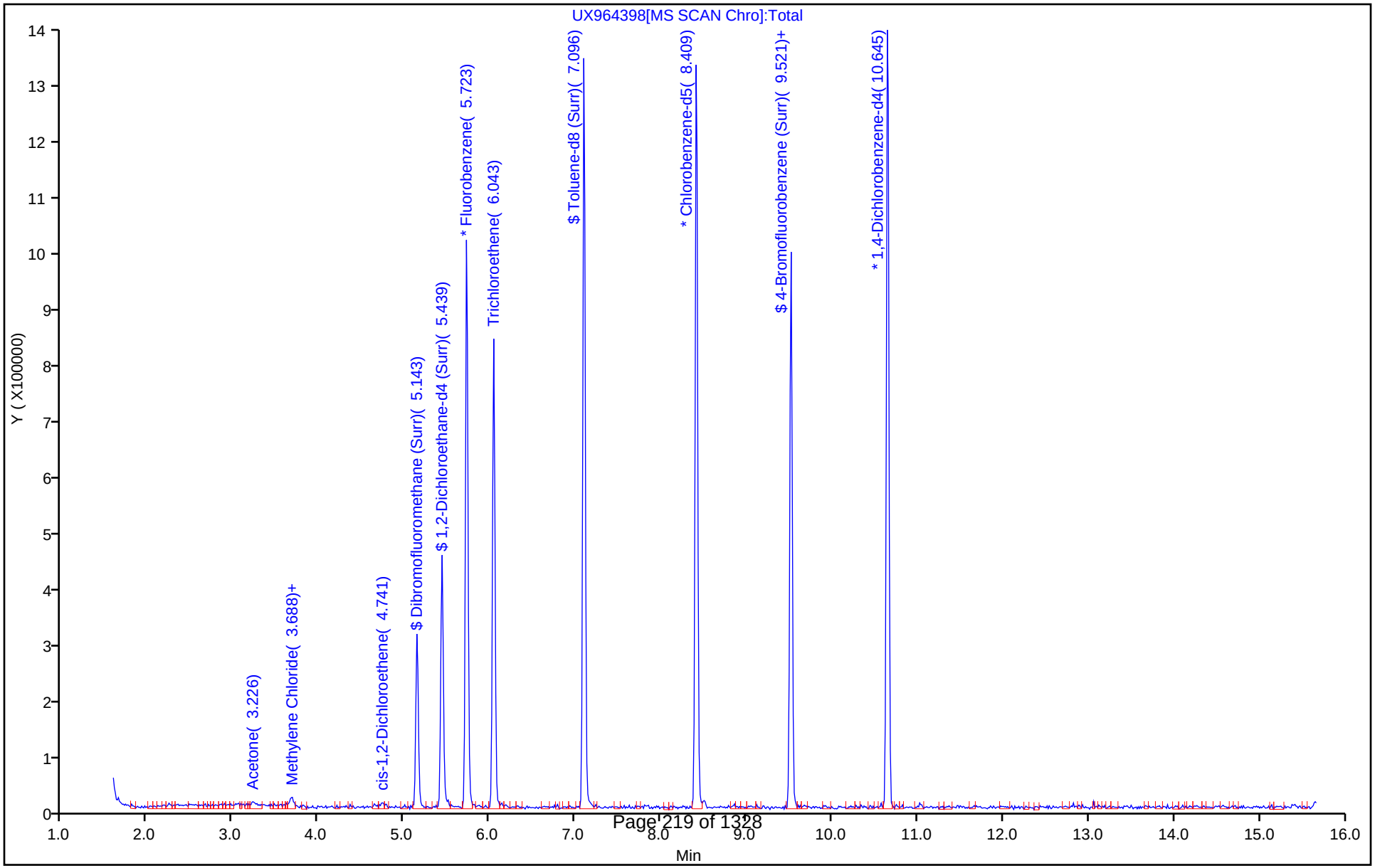
Report Date: 14-Jul-2017 13:50:20 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D

Injection Date:	13-Jul-2017 23:01:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-81987-A-4	Lab Sample ID:	240-81987-4	Worklist Smp#:	13
Client ID:	SEMW-7I-070617				
Purge Vol:	5.000 mL	Dil. Factor:	1250.0000	ALS Bottle#:	4
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File:	\\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D				
Lims ID:	240-81987-A-4				
Client ID:	SEMW-7I-070617				
Sample Type:	Client				
Inject. Date:	13-Jul-2017 23:01:30	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1250.0000		
Sample Info:	240-0066907-013				
Operator ID:	001904	Instrument ID:	A3UX9		
Method:	\\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m				
Limit Group:	MSV 8260C ICAL				
Last Update:	14-Jul-2017 13:50:19	Calib Date:	11-Jul-2017 00:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				

First Level Reviewer: laveyt Date: 14-Jul-2017 13:50:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	19.0	94.93
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.5	92.70
$ 6 Toluene-d8 (Surr)	20.0	20.7	103.59
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.3	101.64

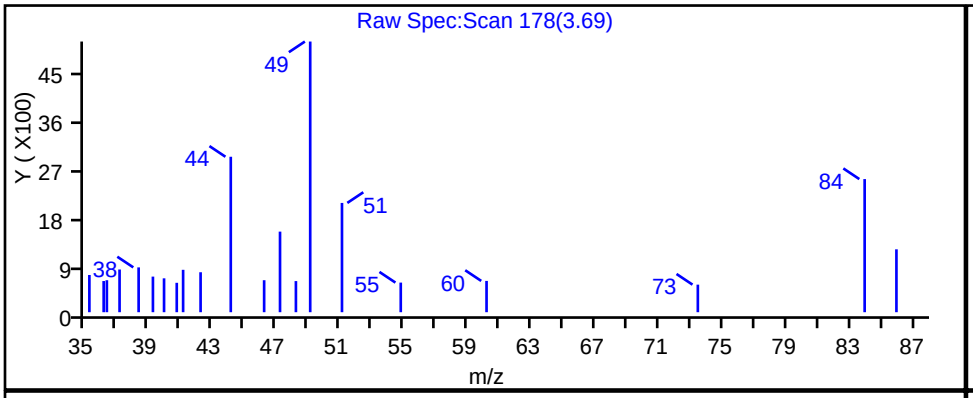
Report Date: 14-Jul-2017 13:50:20 Chrom Revision: 2.2 20-Jun-2017 07:42:38

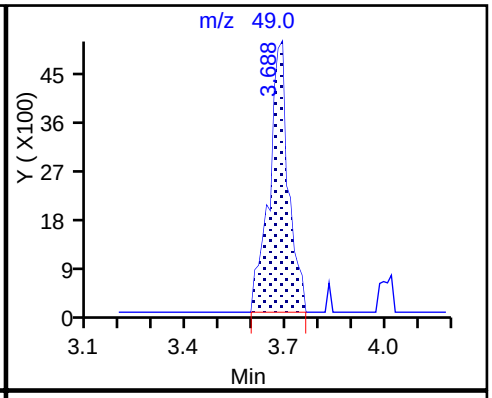
TestAmerica Canton

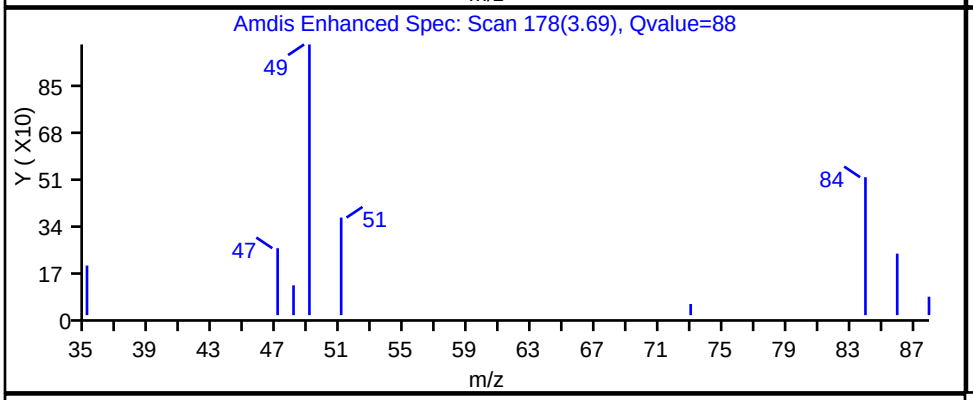
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D

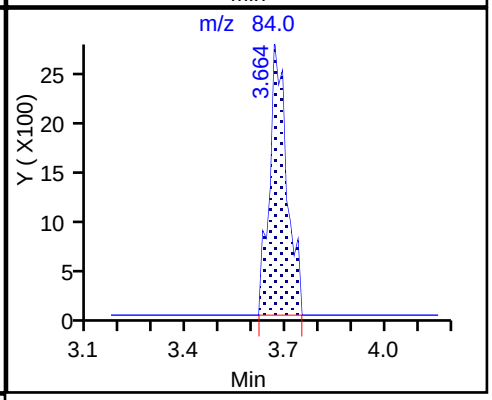
Injection Date:	13-Jul-2017 23:01:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-4	Lab Sample ID:	240-81987-4		
Client ID:	SEMW-7I-070617				
Operator ID:	001904	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1250.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

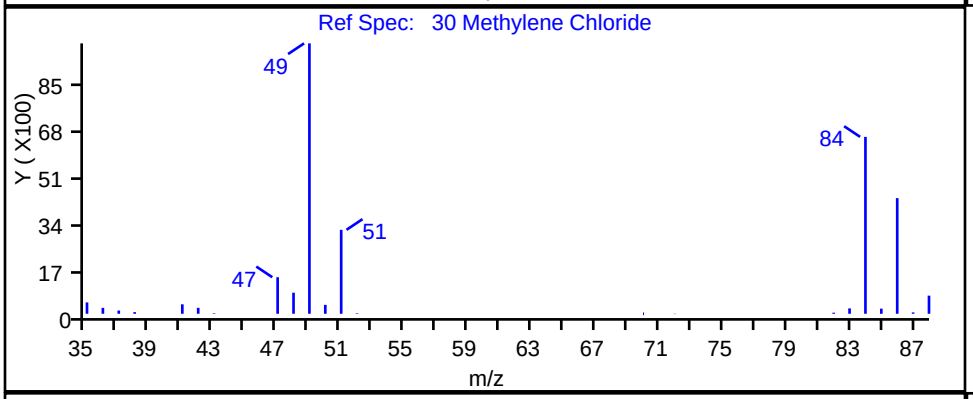
30 Methylene Chloride, CAS: 75-09-2

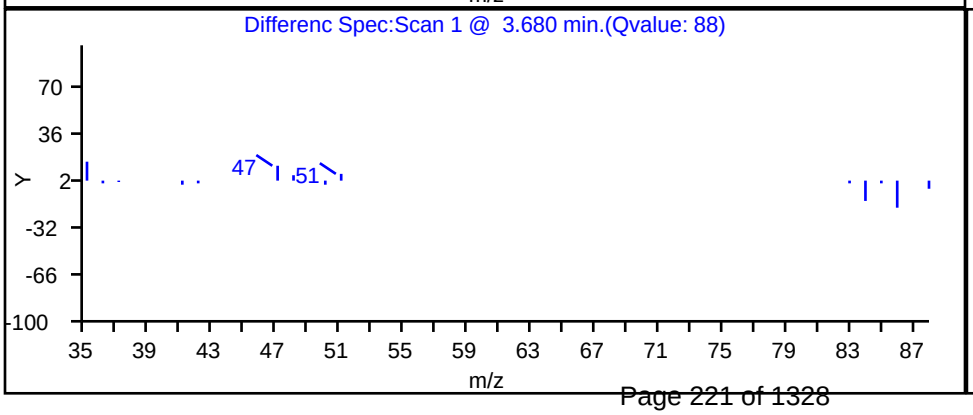


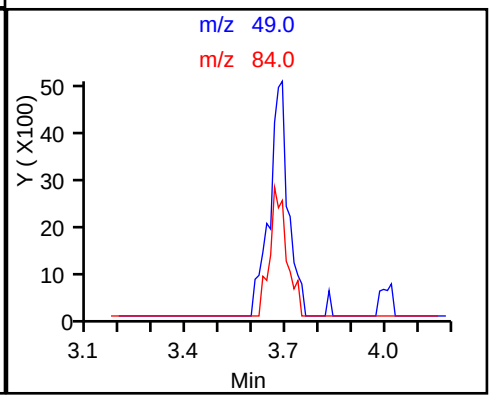












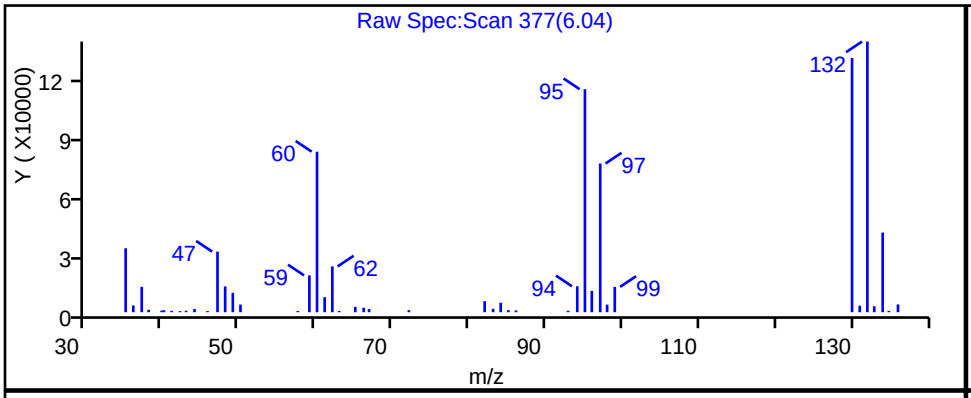
Report Date: 14-Jul-2017 13:50:20 Chrom Revision: 2.2 20-Jun-2017 07:42:38

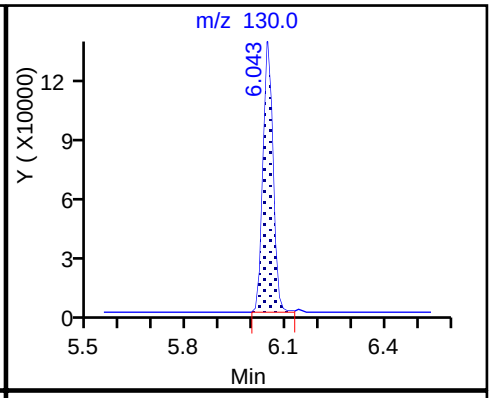
TestAmerica Canton

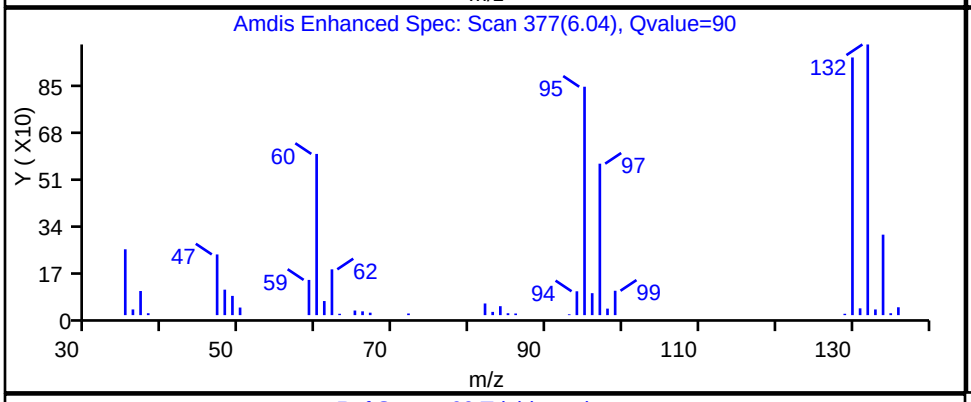
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964398.D

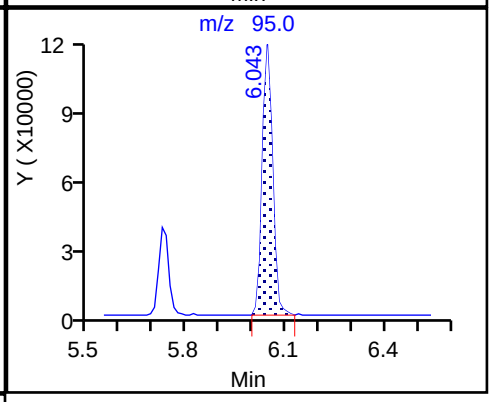
Injection Date:	13-Jul-2017 23:01:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-4	Lab Sample ID:	240-81987-4		
Client ID:	SEMW-7I-070617				
Operator ID:	001904	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1250.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

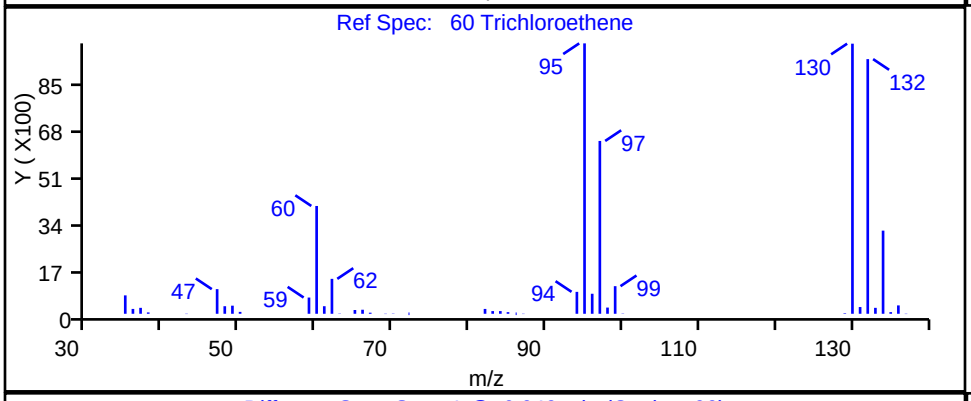
60 Trichloroethene, CAS: 79-01-6

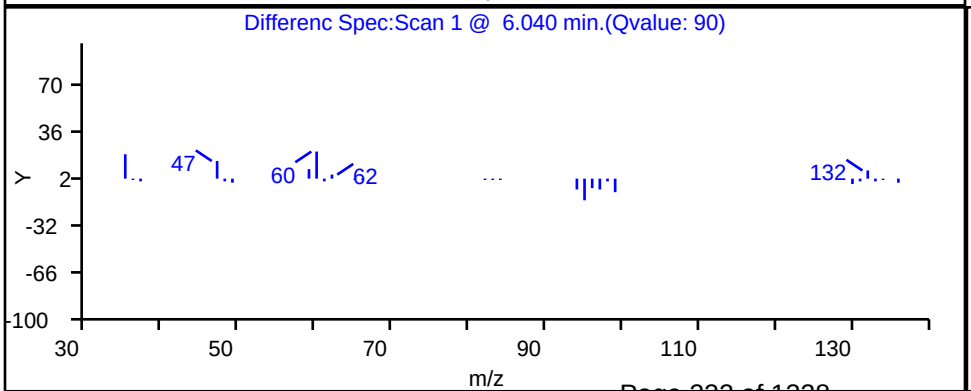


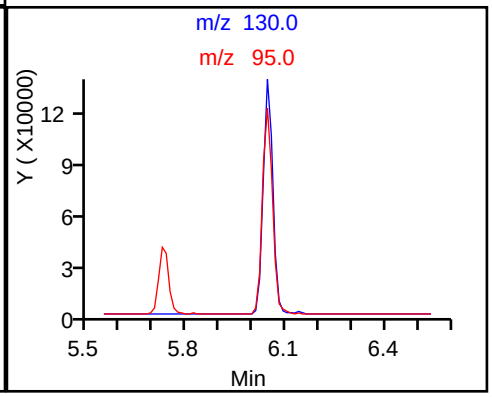












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: TB-070617 | Lab Sample ID: 240-81987-5

Matrix: Water | Lab File ID: UX964399.D

Analysis Method: 8260C | Date Collected: 07/06/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 23:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.5	J	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: TB-070617 | Lab Sample ID: 240-81987-5

Matrix: Water | Lab File ID: UX964399.D

Analysis Method: 8260C | Date Collected: 07/06/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 23:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964399.D
Lims ID: 240-81987-A-5
Client ID: TB-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 23:25:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-014
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:50:50 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:50:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	98	874756	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	93	758166	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.647	10.645	0.002	96	399862	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	93	191741	18.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	96	307727	19.3	
$ 6 Toluene-d8 (Surr)	98	7.097	7.096	0.001	95	860583	20.7	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.521	0.001	87	375187	20.6	
9 Dichlorodifluoromethane	85		1.700				ND	
10 Chloromethane	50		1.877				ND	
11 Vinyl chloride	62		2.008				ND	
13 Bromomethane	94		2.363				ND	
15 Chloroethane	64		2.481				ND	
17 Trichlorofluoromethane	101		2.718				ND	
24 1,1-Dichloroethene	61		3.215				ND	
23 Acetone	43	3.227	3.226	0.001	81	15746	0.7793	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226				ND	
26 Carbon disulfide	76		3.428				ND	
29 Methyl acetate	43		3.522				ND	
30 Methylene Chloride	49		3.676				ND	
34 trans-1,2-Dichloroethene	61		3.877				ND	
33 Methyl tert-butyl ether	73		3.877				ND	
36 1,1-Dichloroethane	63		4.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61		4.741				ND	
41 2-Butanone (MEK)	43	4.742	4.741	0.001	99	17095	1.55	
49 Chloroform	83		5.001				ND	
50 1,1,1-Trichloroethane	97		5.179				ND	
51 Cyclohexane	84		5.238				ND	
53 Carbon tetrachloride	117		5.333				ND	
56 1,2-Dichloroethane	62		5.498				ND	
55 Benzene	78		5.498				ND	
60 Trichloroethene	130	6.044	6.043	0.001	82	3221	0.1106	
62 Methylcyclohexane	83		6.220				ND	
63 1,2-Dichloropropane	63		6.232				ND	
67 Dichlorobromomethane	83		6.457				ND	
71 cis-1,3-Dichloropropene	75		6.847				ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966				ND	
73 Toluene	91		7.155				ND	
74 trans-1,3-Dichloropropene	75		7.332				ND	
76 1,1,2-Trichloroethane	97		7.498				ND	
78 Tetrachloroethene	166		7.664				ND	
80 2-Hexanone	43		7.711				ND	
82 Chlorodibromomethane	129		7.877				ND	
83 Ethylene Dibromide	107		7.983				ND	
85 Chlorobenzene	112		8.445				ND	
87 Ethylbenzene	106		8.539				ND	
88 m-Xylene & p-Xylene	106		8.646				ND	
89 o-Xylene	106		9.024				ND	
90 Styrene	104		9.024				ND	
91 Bromoform	173		9.214				ND	
92 Isopropylbenzene	105		9.368				ND	
94 1,1,2,2-Tetrachloroethane	83		9.640				ND	
108 1,3-Dichlorobenzene	146		10.586				ND	
110 1,4-Dichlorobenzene	146		10.669				ND	
114 1,2-Dichlorobenzene	146		11.048				ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817				ND	
117 1,2,4-Trichlorobenzene	180		12.645				ND	
S 131 Xylenes, Total	106		17.230				ND	

Reagents:

vm100ss_stk_00026	Amount Added: 1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added: 0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added: 1.00	Units: uL	Run Reagent

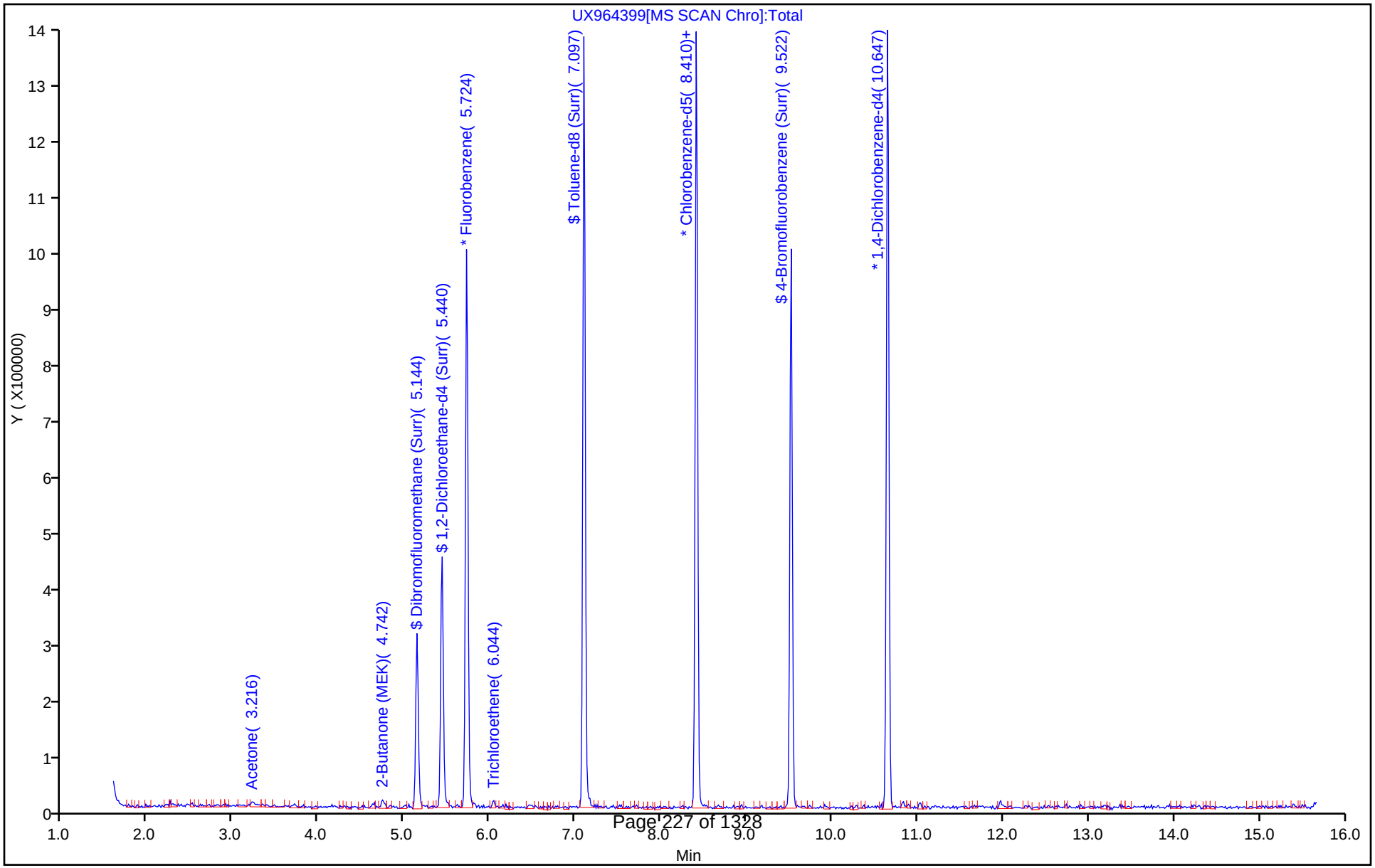
Report Date: 14-Jul-2017 13:50:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964399.D

Injection Date:	13-Jul-2017 23:25:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-81987-A-5	Lab Sample ID:	240-81987-5	Worklist Smp#:	14
Client ID:	TB-070617				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964399.D
Lims ID: 240-81987-A-5
Client ID: TB-070617
Sample Type: Client
Inject. Date: 13-Jul-2017 23:25:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-014
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 13:50:50 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 13:50:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	18.9	94.70
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	19.3	96.60
$ 6 Toluene-d8 (Surr)	20.0	20.7	103.33
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.6	103.23

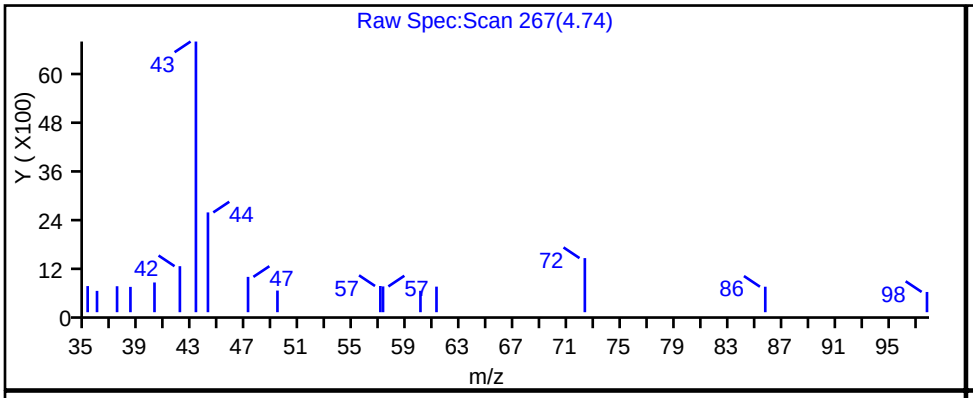
Report Date: 14-Jul-2017 13:50:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

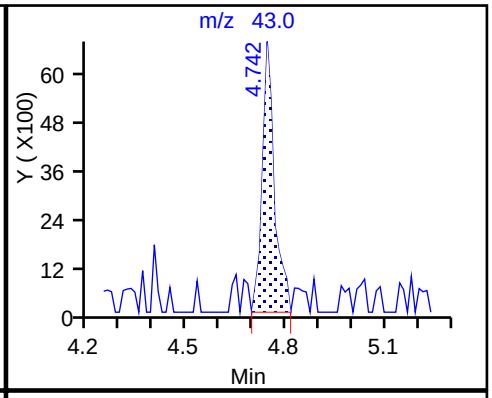
TestAmerica Canton

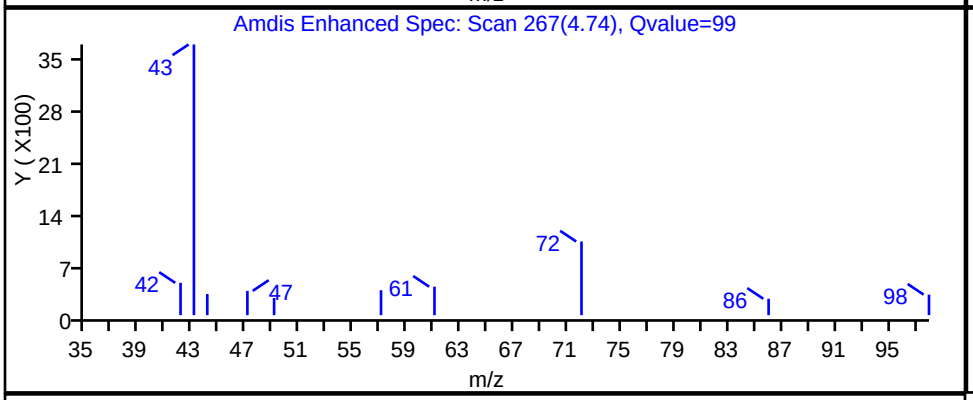
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964399.D

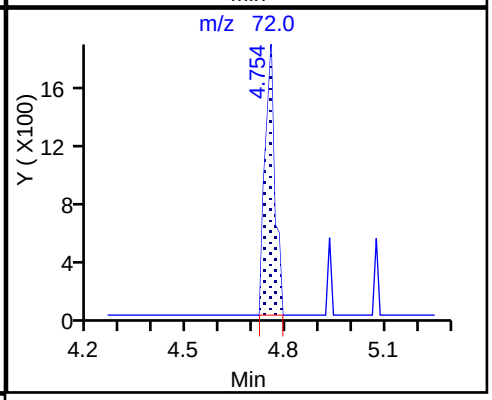
Injection Date:	13-Jul-2017 23:25:30	Instrument ID:	A3UX9		
Lims ID:	240-81987-A-5	Lab Sample ID:	240-81987-5		
Client ID:	TB-070617				
Operator ID:	001904	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_9	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

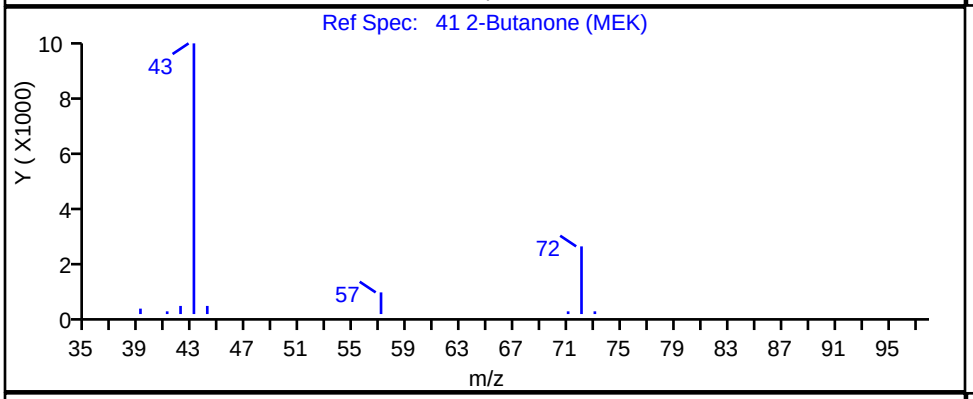
41 2-Butanone (MEK), CAS: 78-93-3

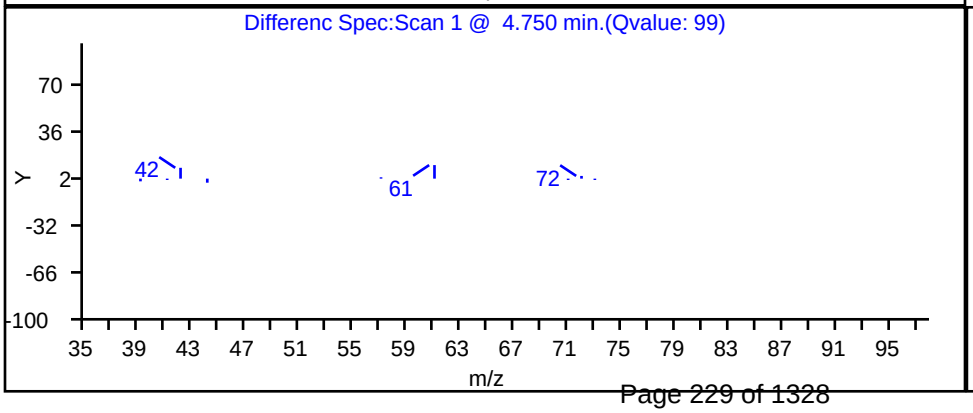


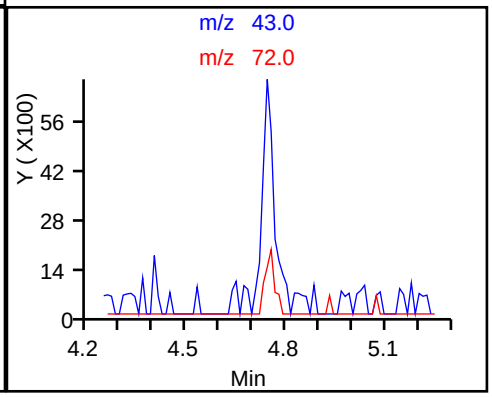












FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-286596/8	UX964311.D
Level 2	STD8260 240-286596/9	UX964312.D
Level 3	STD8260 240-286596/10	UX964313.D
Level 4	ICIS 240-286596/11	UX964314.D
Level 5	STD8260 240-286596/12	UX964315.D
Level 6	STD8260 240-286596/13	UX964316.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2619	0.2406	0.2730	0.2436	0.2596	Ave		0.2557			0.1000	5.3		20.0			
Chloromethane	0.6385 0.4893	0.4946	0.4707	0.4517	0.4487	Ave		0.4989			0.1000	14.2		20.0			
Vinyl chloride	0.3834 0.3287	0.3004	0.3306	0.3164	0.3081	Ave		0.3279			0.1000	9.0		20.0			
Butadiene	0.4541 0.4225	0.4719	0.4594	0.4210	0.4229	Ave		0.4420				5.1		20.0			
Bromomethane	0.1563 0.1248	0.1364	0.1204	0.1145	0.1102	Ave		0.1271			0.0500	13.3		20.0			
Chloroethane	0.2064 0.1734	0.2018	0.1870	0.1605	0.1737	Ave		0.1838			0.0500	9.7		20.0			
Dichlorofluoromethane	0.3915 0.3422	0.3881	0.3767	0.3525	0.3354	Ave		0.3644				6.6		20.0			
Trichlorofluoromethane	+++++ 0.2491	0.2097	0.2875	0.2611	0.2601	Ave		0.2535			0.1000	11.1		20.0			
Ethyl ether	0.2587 0.2305	0.2307	0.2502	0.2357	0.2227	Ave		0.2381				5.7		20.0			
Acrolein	+++++ 0.0305	0.0273	0.0342	0.0333	0.0312	Ave		0.0313				8.6		20.0			
1,1-Dichloroethene	0.4709 0.4511	0.4849	0.4778	0.4354	0.4475	Ave		0.4613			0.1000	4.2		20.0			
Acetone	+++++ 0.1286	0.2562	0.1378	0.1334	0.1252	Lin1	0.2626	0.1250			0.0100				1.0000		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1747 0.1564	0.1875	0.1776	0.1662	0.1722	Ave		0.1724			0.0500	6.1		20.0			
Iodomethane	0.3031 0.3082	0.2900	0.3049	0.2995	0.2982	Ave		0.3006				2.1		20.0			
Carbon disulfide	+++++ 0.4016	0.4802	0.4021	0.4142	0.3877	Ave		0.4172			0.1000	8.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3587	0.6317	0.4144	0.4386	0.4011	Lin1	0.2934	0.3790							0.9940		0.9900
Methyl acetate	0.4233 0.3121	0.3546	0.3181	0.3090	0.3100	Ave		0.3378			0.1000	13.4		20.0			
Methylene Chloride	+++++ 0.6859	0.9099	0.6558	0.6045	0.6491	Ave		0.7011			0.1000	17.2		20.0			
2-Methyl-2-propanol	0.0486 0.0450	0.0370	0.0434	0.0410	0.0429	Ave		0.0430				9.1		20.0			
Acrylonitrile	0.1672 0.1939	0.1746	0.1899	0.1827	0.1948	Ave		0.1839				6.1		20.0			
trans-1,2-Dichloroethene	0.5836 0.5318	0.5068	0.5091	0.4920	0.5071	Ave		0.5217			0.1000	6.3		20.0			
Methyl tert-butyl ether	0.7245 0.7910	0.6906	0.7828	0.7553	0.7357	Ave		0.7467			0.1000	5.0		20.0			
Hexane	0.6141 0.4686	0.5081	0.4805	0.4753	0.5136	Ave		0.5100				10.6		20.0			
1,1-Dichloroethane	0.5426 0.5896	0.5388	0.5515	0.5486	0.5536	Ave		0.5541			0.2000	3.3		20.0			
Vinyl acetate	0.8472 1.0745	0.8268	0.8940	0.8941	0.9823	Ave		0.9198				10.1		20.0			
2-Butanone (MEK)	0.2747 0.2493	0.2785	0.2330	0.2364	0.2431	Ave		0.2525			0.0100	7.7		20.0			
cis-1,2-Dichloroethene	0.5476 0.5761	0.5453	0.5436	0.5503	0.5419	Ave		0.5508			0.1000	2.3		20.0			
2,2-Dichloropropane	+++++ 0.1831	0.1825	0.1941	0.1907	0.1859	Ave		0.1873				2.7		20.0			
Chlorobromomethane	0.5176 0.4484	0.4225	0.3953	0.4078	0.4052	Ave		0.4328				10.5		20.0			
Tetrahydrofuran	+++++ 0.1687	0.1698	0.1514	0.1547	0.1599	Ave		0.1609				5.1		20.0			
Chloroform	0.4981 0.4351	0.3948	0.4373	0.4173	0.4102	Ave		0.4321			0.2000	8.3		20.0			
1,1,1-Trichloroethane	0.3266 0.3789	0.3165	0.3601	0.3588	0.3642	Ave		0.3509			0.1000	6.8		20.0			
Cyclohexane	0.4337 0.3818	0.4191	0.4090	0.3839	0.3846	Ave		0.4020			0.1000	5.4		20.0			
1,1-Dichloropropene	0.3716 0.3215	0.3027	0.3364	0.3165	0.3161	Ave		0.3275				7.4		20.0			
Carbon tetrachloride	0.2830 0.3270	0.2983	0.3102	0.3064	0.3156	Ave		0.3068			0.1000	4.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0170 0.0184	0.0196	0.0156	0.0164	0.0174	Ave		0.0174				8.1		20.0			
1,2-Dichloroethane	0.5463 0.5383	0.5119	0.5192	0.5153	0.5181	Ave		0.5249			0.1000	2.7		20.0			
Benzene	1.0086 0.9564	0.9493	0.9875	0.9594	0.9220	Ave		0.9639			0.5000	3.1		20.0			
n-Heptane	+++++ 0.1494	0.3113	0.1758	0.1754	0.1735	Lin1	0.1653	0.1577							0.9950		0.9900
Trichloroethene	0.4293 0.2873	0.2660	0.2787	0.2834	0.2741	Lin1	0.0426	0.2805			0.1500				0.9990		0.9900
Methylcyclohexane	0.3465 0.3429	0.4004	0.3728	0.3654	0.3627	Ave		0.3651			0.1000	5.7		20.0			
1,2-Dichloropropane	0.4214 0.3309	0.3410	0.3361	0.3256	0.3186	Ave		0.3456			0.1000	11.0		20.0			
Dibromomethane	0.2063 0.1917	0.1789	0.1763	0.1870	0.1805	Ave		0.1868				5.9		20.0			
1,4-Dioxane	0.0025 0.0030	0.0029	0.0026	0.0032	0.0029	Ave		0.0028				9.2		20.0			
Dichlorobromomethane	0.3088 0.3504	0.3502	0.3323	0.3292	0.3277	Ave		0.3331			0.1500	4.7		20.0			
2-Chloroethyl vinyl ether	0.2779 0.2529	0.2387	0.2420	0.2448	0.2481	Ave		0.2507				5.7		20.0			
cis-1,3-Dichloropropene	0.3835 0.4036	0.3254	0.3766	0.3818	0.3807	Ave		0.3752			0.1500	7.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.6352 0.5539	0.5226	0.5039	0.4983	0.5305	Ave		0.5407			0.0500	9.3		20.0			
Toluene	1.3941 1.2347	1.2107	1.2784	1.2601	1.1983	Ave		1.2627			0.4000	5.6		20.0			
trans-1,3-Dichloropropene	0.5273 0.4629	0.3965	0.4358	0.4385	0.4402	Ave		0.4502			0.1000	9.6		20.0			
Ethyl methacrylate	0.4362 0.4463	0.4307	0.4385	0.4299	0.4343	Ave		0.4360				1.4		20.0			
1,1,2-Trichloroethane	0.3529 0.2902	0.2757	0.2863	0.2904	0.2793	Ave		0.2958			0.1000	9.7		20.0			
1,3-Dichloropropane	0.5430 0.4844	0.5026	0.5160	0.4905	0.4707	Ave		0.5012				5.1		20.0			
Tetrachloroethene	0.4849 0.3383	0.3429	0.3474	0.3342	0.3250	Ave		0.3621			0.1500	16.8		20.0			
2-Hexanone	0.4666 0.4733	0.4423	0.4431	0.4306	0.4612	Ave		0.4528			0.0500	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3116 0.3376	0.3048	0.3196	0.3110	0.3189	Ave		0.3173				3.6		20.0			
Ethylene Dibromide	0.4212 0.3348	0.2769	0.3281	0.3283	0.3207	Ave		0.3350				14.1		20.0			
Chlorobenzene	1.2128 0.9058	0.9982	0.9495	0.9124	0.8680	Ave		0.9744			0.3000	12.8		20.0			
1,1,1,2-Tetrachloroethane	0.3697 0.3406	0.3279	0.3287	0.3225	0.3275	Ave		0.3361				5.2		20.0			
Ethylbenzene	0.4071 0.4703	0.4658	0.4956	0.4779	0.4467	Ave		0.4606				6.7		20.0			
m-Xylene & p-Xylene	0.6248 0.5786	0.5331	0.6065	0.5854	0.5613	Ave		0.5816				5.6		20.0			
o-Xylene	0.5215 0.5514	0.5479	0.6008	0.5752	0.5364	Ave		0.5555				5.1		20.0			
Styrene	0.8356 0.9588	0.8899	0.9726	0.9826	0.9345	Ave		0.9290			0.3000	6.1		20.0			
Bromoform	0.1737 0.2450	0.2097	0.2084	0.2129	0.2259	Ave		0.2126			0.1000	11.1		20.0			
Isopropylbenzene	1.3670 1.3259	1.2086	1.4063	1.3520	1.3092	Ave		1.3282			0.1000	5.1		20.0			
1,1,2,2-Tetrachloroethane	0.8848 0.7120	0.7726	0.7934	0.7661	0.7465	Ave		0.7792			0.3000	7.5		20.0			
Bromobenzene	0.6516 0.6814	0.7851	0.7378	0.7109	0.6860	Ave		0.7088				6.7		20.0			
1,2,3-Trichloropropane	0.3013 0.2607	0.3236	0.2974	0.2917	0.2651	Ave		0.2900				8.2		20.0			
trans-1,4-Dichloro-2-butene	0.4710 0.4813	0.4577	0.4606	0.4661	0.4712	Ave		0.4680				1.8		20.0			
N-Propylbenzene	0.7464 0.7157	0.7157	0.7774	0.7942	0.7282	Ave		0.7463				4.4		20.0			
2-Chlorotoluene	0.7375 0.6322	0.6063	0.6842	0.6998	0.6409	Ave		0.6668				7.3		20.0			
1,3,5-Trimethylbenzene	2.1529 1.9082	2.0083	2.0886	2.1154	1.9430	Ave		2.0361				4.8		20.0			
4-Chlorotoluene	0.7835 0.6774	0.6978	0.7340	0.7487	0.6755	Ave		0.7195				6.0		20.0			
tert-Butylbenzene	1.8657 1.8680	1.8642	2.2089	2.0171	2.0640	Ave		1.9813				7.1		20.0			
1,2,4-Trimethylbenzene	2.1550 2.0251	2.0899	2.2066	2.2273	2.0544	Ave		2.1264				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.6022 0.5711	0.5328	0.5844	0.6212	0.5642	Ave		0.5793				5.3		20.0			
1,3-Dichlorobenzene	1.4630 1.2896	1.3692	1.3953	1.3738	1.3030	Ave		1.3657			0.6000	4.6		20.0			
4-Isopropyltoluene	2.0812 2.0849	2.1092	2.3074	2.2859	2.1281	Ave		2.1661				4.7		20.0			
1,4-Dichlorobenzene	1.5641 1.3503	1.4631	1.4348	1.4462	1.3451	Ave		1.4339			0.5000	5.6		20.0			
n-Butylbenzene	1.6031 1.5763	1.6213	1.6986	1.7081	1.6152	Ave		1.6371				3.3		20.0			
1,2-Dichlorobenzene	1.6542 1.2772	1.2637	1.4019	1.3575	1.2884	Ave		1.3738			0.4000	10.7		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1760	0.1568	0.1714	0.1754	0.1783	Ave		0.1716			0.0500	5.0		20.0			
1,2,4-Trichlorobenzene	0.9890 0.7605	0.7919	0.7107	0.7720	0.7278	Ave		0.7920			0.2000	12.7		20.0			
Hexachlorobutadiene	+++++ 0.2970	0.3137	0.2911	0.2966	0.2956	Ave		0.2988				2.9		20.0			
Naphthalene	2.4257 2.3982	2.4444	2.2887	2.5560	2.4291	Ave		2.4237				3.5		20.0			
1,2,3-Trichlorobenzene	0.8588 0.7109	0.6338	0.6429	0.7335	0.6870	Ave		0.7111				11.5		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2409	0.2296	0.2382	0.2270	0.2216	Ave		0.2315				3.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3770	0.3849	0.3693	0.3439	0.3456	Ave		0.3642				5.1		20.0			
Toluene-d8 (Surr)	+++++ 1.0809	1.1290	1.1662	1.0866	1.0298	Ave		1.0985				4.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4591	0.5489	0.4874	0.4645	0.4372	Ave		0.4794				8.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-286596/8	UX964311.D
Level 2	STD8260 240-286596/9	UX964312.D
Level 3	STD8260 240-286596/10	UX964313.D
Level 4	ICIS 240-286596/11	UX964314.D
Level 5	STD8260 240-286596/12	UX964315.D
Level 6	STD8260 240-286596/13	UX964316.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 808257	12472	140101	255224	537404	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	16214 1509927	25643	241556	473233	928869	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	9735 1014296	15575	169652	331515	637709	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	11531 1303739	24465	235750	441112	875331	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	3968 385098	7074	61807	119994	228054	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	5241 535124	10462	95951	168181	359537	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9942 1056068	20122	193287	369334	694339	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	+++++ 768640	10872	147511	273613	538341	+++++ 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6570 711442	11961	128406	246924	461056	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	+++++ 471125	7077	87851	174274	322469	+++++ 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	11956 1392024	25140	245173	456159	926347	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 793413	26570	141433	279552	518457	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	4435 482707	9719	91112	174151	356367	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	7696 951217	15036	156439	313744	617165	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 1239406	24895	206352	433940	802561	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Lin1	+++++ 1106877	32753	212669	459546	830192	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	21497 1925983	36770	326426	647477	1283141	1.00 120	2.00	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 2116768	47177	336510	633397	1343588	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	12353 1389337	19174	222525	430058	887440	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	42463 5983387	90520	974555	1914226	4031827	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	14820 1640978	26274	261241	515456	1049737	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	18397 2440816	35805	401680	791403	1522861	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	15594 1446072	26344	246541	498028	1063048	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13777 1819379	27935	282983	574775	1146003	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	21512 3315669	42868	458767	936827	2033252	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	13951 1538829	28880	239137	495469	1006444	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	13905 1777650	28271	278943	576538	1121650	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	+++++ 565034	9461	99605	199807	384867	+++++ 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	13142 1383801	21906	202866	427215	838807	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 1041393	17609	155426	324111	662119	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	12647 1342592	20467	224395	437191	849082	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8293 1169259	16409	184769	375974	753891	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11012 1178063	21730	209890	402180	796175	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	9436 992095	15692	172610	331584	654381	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7187 1009036	15465	159151	321035	653339	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	10797 1420948	25374	200386	430416	898344	12.5 1500	25.0	250	500	1000
1,2-Dichloroethane	FB	Ave	13872 1661126	26543	266425	539869	1072383	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	25610 2951422	49219	506738	1005231	1908527	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 461126	16138	90235	183763	359055	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Lin1	10902 886510	13793	142992	296978	567389	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8798 1058183	20758	191318	382828	750685	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	10700 1021230	17681	172487	341134	659571	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	5238 591463	9273	90456	195926	373580	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	1283 182372	2976	26576	68061	118543	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7842 1081167	18155	170538	344947	678387	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	14113 1560694	24747	248394	512981	1026916	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	9737 1245390	16871	193227	400039	787913	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	32260 3418492	54193	517141	1044080	2196288	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29383 3236959	52915	539928	1099891	2095803	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	11114 1213548	17329	184069	382769	769984	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	9194 1170033	18822	185199	375271	759667	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7439 760720	12049	120926	253458	488528	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	11445 1269944	21967	217922	428160	823180	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	10221 886938	14985	146701	291724	568375	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	19668 2481601	38664	374262	751654	1613416	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	6568 885170	13320	134998	271426	557838	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	8878 877823	12104	138569	286535	560911	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	25562 2374706	43625	401017	796403	1518065	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	7792 892866	14329	138840	281512	572753	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8581 1232862	20356	209317	417126	781284	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13170 1517011	23297	256158	510946	981740	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10992 1445479	23947	253744	502029	938127	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17612 2513690	38891	410766	857615	1634456	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	3661 642260	9163	88024	185843	395062	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28813 3476184	52820	593909	1180073	2289798	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9976 1086915	17762	183242	361393	725221	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7347 1040197	18050	170402	335339	666438	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3397 397926	7439	68692	137612	257546	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	5310 734800	10522	106377	219855	457796	0.500 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8415 1092623	16453	179532	374633	707509	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8315 965099	13938	158020	330097	622615	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24273 2912972	46170	482370	997890	1887749	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8834 1034122	16042	169513	353205	656274	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21035 2851583	42858	510157	951528	2005249	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	24297 3091462	48046	509624	1050699	1995924	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	6790 871807	12250	134969	293030	548121	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16495 1968577	31477	322247	648060	1265957	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	23464 3182726	48490	532898	1078347	2067510	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	17634 2061373	33636	331368	682234	1306839	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-81987-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	18074 2406335	37272	392284	805741	1569204	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	18650 1949784	29052	323775	640372	1251743	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 268647	3605	39585	82740	173204	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	11151 1160988	18206	164148	364175	707061	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 453313	7211	67236	139918	287201	+++++ 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27348 3660996	56195	528575	1205725	2359984	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9683 1085160	14570	148474	346017	667466	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 743371	11905	122214	237841	458735	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1163532	19958	189491	360351	715422	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2833731	49344	492526	948447	1801090	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1203507	23988	205835	405432	764602	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964311.D
Lims ID: std8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 10-Jul-2017 19:33:30 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-008
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:14 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 20:29:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.722	5.723	-0.001	97	1015682	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.408	8.409	-0.001	94	843096	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.645	10.646	-0.001	96	450980	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113		5.146				ND	ND	
$ 5 1,2-Dichloroethane-d4 (Sur	65		5.430				ND	ND	
$ 6 Toluene-d8 (Surr)	98		7.099				ND	ND	
$ 7 4-Bromofluorobenzene (Surr	95		9.524				ND	ND	
9 Dichlorodifluoromethane	85		1.715				ND	ND	
10 Chloromethane	50	1.877	1.880	-0.003	95	16214	0.5000	0.6399	
11 Vinyl chloride	62	1.995	1.999	-0.004	96	9735	0.5000	0.5846	
12 Butadiene	54	2.054	2.046	0.008	95	11531	0.5000	0.5137	
13 Bromomethane	94	2.362	2.354	0.008	21	3968	0.5000	0.6147	
15 Chloroethane	64	2.480	2.472	0.008	38	5241	0.5000	0.5615	
16 Dichlorofluoromethane	67	2.658	2.649	0.009	91	9942	0.5000	0.5372	
17 Trichlorofluoromethane	101		2.720				ND	ND	
18 Ethyl ether	59	2.965	2.969	-0.004	83	6570	0.5000	0.5433	
21 Acrolein	56		3.087				ND	ND	
24 1,1-Dichloroethene	61	3.214	3.217	-0.003	73	11956	0.5000	0.5104	
23 Acetone	43		3.217				ND	ND	
22 1,1,2-Trichloro-1,2,2-trif	101	3.214	3.229	-0.015	49	4435	0.5000	0.5065	
25 Iodomethane	142	3.367	3.371	-0.004	95	7696	0.5000	0.5041	
26 Carbon disulfide	76		3.419				ND	ND	
28 3-Chloro-1-propene	41		3.513				ND	ND	
29 Methyl acetate	43	3.521	3.525	-0.004	59	21497	1.00	1.25	
30 Methylene Chloride	49		3.667				ND	ND	
31 2-Methyl-2-propanol	59	3.711	3.714	-0.003	97	12353	5.00	5.66	
32 Acrylonitrile	53	3.841	3.833	0.008	95	42463	5.00	4.55	
34 trans-1,2-Dichloroethene	61	3.876	3.868	0.008	76	14820	0.5000	0.5593	
33 Methyl tert-butyl ether	73	3.876	3.880	-0.004	94	18397	0.5000	0.4852	
35 Hexane	57	4.113	4.117	-0.004	97	15594	0.5000	0.6020	
36 1,1-Dichloroethane	63	4.243	4.247	-0.004	94	13777	0.5000	0.4896	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.279	4.271	0.008	97	21512	0.5000	0.4605	
42 2,2-Dichloropropane	77		4.744				ND	ND	
41 2-Butanone (MEK)	43	4.740	4.744	-0.004	91	13951	1.00	1.09	
43 cis-1,2-Dichloroethene	61	4.740	4.744	-0.004	84	13905	0.5000	0.4971	
47 Chlorobromomethane	49	4.941	4.945	-0.004	88	13142	0.5000	0.5979	
48 Tetrahydrofuran	42		4.992				ND	ND	
49 Chloroform	83	5.012	5.004	0.008	91	12647	0.5000	0.5763	
50 1,1,1-Trichloroethane	97	5.178	5.182	-0.004	79	8293	0.5000	0.4654	
51 Cyclohexane	84	5.237	5.241	-0.004	88	11012	0.5000	0.5394	
52 1,1-Dichloropropene	75	5.320	5.324	-0.004	82	9436	0.5000	0.5674	
53 Carbon tetrachloride	117	5.332	5.324	0.008	68	7187	0.5000	0.4614	
54 Isobutyl alcohol	41	5.379	5.371	0.008	87	10797	12.5	12.2	
55 Benzene	78	5.497	5.501	-0.004	89	25610	0.5000	0.5232	
56 1,2-Dichloroethane	62	5.497	5.501	-0.004	68	13872	0.5000	0.5204	
58 n-Heptane	71		5.702				ND	ND	
60 Trichloroethene	130	6.030	6.045	-0.015	91	10902	0.5000	0.6134	
62 Methylcyclohexane	83	6.219	6.223	-0.004	81	8798	0.5000	0.4745	
63 1,2-Dichloropropane	63	6.231	6.235	-0.004	72	10700	0.5000	0.6096	
65 1,4-Dioxane	88	6.338	6.341	-0.003	35	1283	10.0	8.89	
66 Dibromomethane	174	6.338	6.341	-0.003	84	5238	0.5000	0.5523	
67 Dichlorobromomethane	83	6.456	6.460	-0.004	91	7842	0.5000	0.4636	
69 2-Chloroethyl vinyl ether	63	6.704	6.708	-0.004	87	14113	1.00	1.11	
71 cis-1,3-Dichloropropene	75	6.846	6.850	-0.004	80	9737	0.5000	0.5110	
72 4-Methyl-2-pentanone (MIBK	43	6.976	6.968	0.008	97	32260	1.00	1.17	
73 Toluene	91	7.154	7.158	-0.004	94	29383	0.5000	0.5520	
74 trans-1,3-Dichloropropene	75	7.331	7.335	-0.004	93	11114	0.5000	0.5856	
75 Ethyl methacrylate	69	7.402	7.394	0.008	88	9194	0.5000	0.5002	
76 1,1,2-Trichloroethane	97	7.509	7.501	0.008	90	7439	0.5000	0.5966	
77 1,3-Dichloropropane	76	7.651	7.655	-0.004	79	11445	0.5000	0.5417	
78 Tetrachloroethene	166	7.651	7.667	-0.016	84	10221	0.5000	0.6696	
80 2-Hexanone	43	7.710	7.714	-0.004	98	19668	1.00	1.03	
82 Chlorodibromomethane	129	7.876	7.868	0.008	85	6568	0.5000	0.4911	
83 Ethylene Dibromide	107	7.994	7.986	0.008	94	8878	0.5000	0.6286	
85 Chlorobenzene	112	8.444	8.436	0.008	93	25562	0.5000	0.6223	
86 1,1,1,2-Tetrachloroethane	131	8.515	8.507	0.008	90	7792	0.5000	0.5499	
87 Ethylbenzene	106	8.538	8.530	0.008	97	8581	0.5000	0.4420	
88 m-Xylene & p-Xylene	106	8.645	8.637	0.008	95	13170	0.5000	0.5371	
89 o-Xylene	106	9.012	9.016	-0.004	87	10992	0.5000	0.4694	
90 Styrene	104	9.024	9.027	-0.003	81	17612	0.5000	0.4497	
91 Bromoform	173	9.213	9.217	-0.004	72	3661	0.5000	0.4085	
92 Isopropylbenzene	105	9.367	9.371	-0.003	94	28813	0.5000	0.5146	
94 1,1,2,2-Tetrachloroethane	83	9.627	9.643	-0.016	94	9976	0.5000	0.5678	
95 Bromobenzene	156	9.674	9.678	-0.004	87	7347	0.5000	0.4597	
97 1,2,3-Trichloropropane	110	9.686	9.690	-0.004	68	3397	0.5000	0.5195	
96 trans-1,4-Dichloro-2-buten	53	9.698	9.690	0.008	63	5310	0.5000	0.5032	
98 N-Propylbenzene	120	9.769	9.761	0.008	97	8415	0.5000	0.5001	
100 2-Chlorotoluene	126	9.864	9.856	0.008	96	8315	0.5000	0.5530	
101 1,3,5-Trimethylbenzene	105	9.935	9.927	0.008	93	24273	0.5000	0.5287	
102 4-Chlorotoluene	126	9.958	9.962	-0.004	95	8834	0.5000	0.5445	
104 tert-Butylbenzene	119	10.254	10.258	-0.004	92	21035	0.5000	0.4708	
106 1,2,4-Trimethylbenzene	105	10.301	10.305	-0.004	94	24297	0.5000	0.5067	
107 sec-Butylbenzene	134	10.467	10.471	-0.004	92	6790	0.5000	0.5198	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.585	10.589	-0.004	93	16495	0.5000	0.5357	
109 4-Isopropyltoluene	119	10.609	10.613	-0.004	95	23464	0.5000	0.4804	
110 1,4-Dichlorobenzene	146	10.680	10.672	0.008	46	17634	0.5000	0.5454	
113 n-Butylbenzene	91	11.011	11.015	-0.004	96	18074	0.5000	0.4896	
114 1,2-Dichlorobenzene	146	11.047	11.051	-0.004	92	18650	0.5000	0.6020	
115 1,2-Dibromo-3-Chloropropan	157		11.808				ND	ND	
117 1,2,4-Trichlorobenzene	180	12.644	12.648	-0.004	93	11151	0.5000	0.6244	
118 Hexachlorobutadiene	225		12.826				ND	ND	
119 Naphthalene	128	12.905	12.909	-0.004	96	27348	0.5000	0.5004	
120 1,2,3-Trichlorobenzene	180	13.165	13.169	-0.004	87	9683	0.5000	0.6038	
S 158 Total BTEX	1				0		2.50	2.52	
S 128 1,2-Dichloroethene, Total	96				0			1.06	
S 129 1,3-Dichloropropene, Total	75				0			1.10	
S 130 Trihalomethanes, Total	83				0		2.00	1.94	
S 131 Xylenes, Total	106				0		1.00	1.01	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	0.40	Units: uL
vmarolistdw_00206	Amount Added:	0.40	Units: uL
vmrprimw_00243	Amount Added:	0.40	Units: uL
vm50ss_00289	Amount Added:	0.40	Units: uL

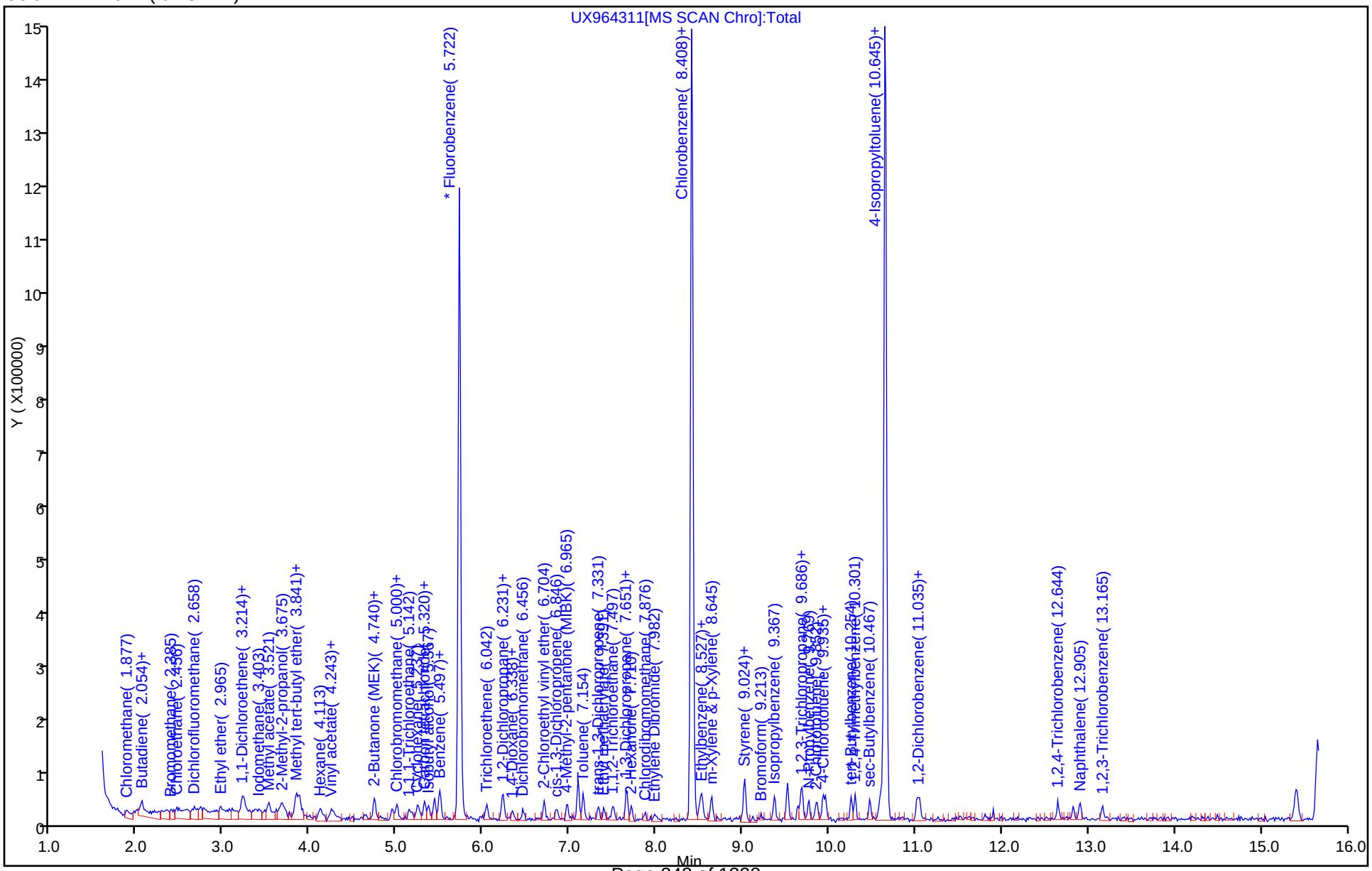
Report Date: 11-Jul-2017 14:47:16 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964311.D

Injection Date:	10-Jul-2017 19:33:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	std8260 L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964312.D
Lims ID: std8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 10-Jul-2017 19:57:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-009
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:19 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 20:36:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.726	5.723	0.003	97	1036943	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.412	8.409	0.003	92	874096	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.649	10.646	0.003	95	459792	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.135	5.146	-0.011	87	11905	1.00	0.99	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.430	5.430	0.000	95	19958	1.00	1.06	
$ 6 Toluene-d8 (Surr)	98	7.099	7.099	0.000	92	49344	1.00	1.03	
$ 7 4-Bromofluorobenzene (Surr	95	9.525	9.524	0.001	89	23988	1.00	1.14	
9 Dichlorodifluoromethane	85	1.715	1.715	0.000	95	12472	1.00	0.9406	
10 Chloromethane	50	1.881	1.880	0.001	97	25643	1.00	0.99	
11 Vinyl chloride	62	2.011	1.999	0.012	97	15575	1.00	0.9161	
12 Butadiene	54	2.046	2.046	0.000	98	24465	1.00	1.07	
13 Bromomethane	94	2.378	2.354	0.024	21	7074	1.00	1.07	M
15 Chloroethane	64	2.472	2.472	0.000	95	10462	1.00	1.10	
16 Dichlorofluoromethane	67	2.650	2.649	0.001	95	20122	1.00	1.06	
17 Trichlorofluoromethane	101	2.721	2.720	0.001	35	10872	1.00	0.8272	
18 Ethyl ether	59	2.969	2.969	0.000	95	11961	1.00	0.9689	
21 Acrolein	56	3.076	3.087	-0.011	66	7077	5.00	4.36	
23 Acetone	43	3.218	3.217	0.001	97	26570	2.00	2.00	
24 1,1-Dichloroethene	61	3.218	3.217	0.001	85	25140	1.00	1.05	
22 1,1,2-Trichloro-1,2,2-trif	101	3.230	3.229	0.001	56	9719	1.00	1.09	
25 Iodomethane	142	3.372	3.371	0.001	95	15036	1.00	0.9646	
26 Carbon disulfide	76	3.431	3.419	0.012	78	24895	1.00	1.15	
28 3-Chloro-1-propene	41	3.514	3.513	0.001	71	32753	1.00	0.8926	
29 Methyl acetate	43	3.525	3.525	0.000	98	36770	2.00	2.10	
30 Methylene Chloride	49	3.667	3.667	0.000	90	47177	1.00	1.30	
31 2-Methyl-2-propanol	59	3.715	3.714	0.001	97	19174	10.0	8.60	
32 Acrylonitrile	53	3.833	3.833	0.000	100	90520	10.0	9.50	
34 trans-1,2-Dichloroethene	61	3.869	3.868	0.000	83	26274	1.00	0.9713	
33 Methyl tert-butyl ether	73	3.880	3.880	0.000	94	35805	1.00	0.9249	
35 Hexane	57	4.117	4.117	0.000	89	26344	1.00	1.00	
36 1,1-Dichloroethane	63	4.247	4.247	0.000	96	27935	1.00	0.9724	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.271	4.271	0.000	96	42868	1.00	0.8989	
42 2,2-Dichloropropane	77	4.744	4.744	0.000	51	9461	1.00	0.9744	
43 cis-1,2-Dichloroethene	61	4.744	4.744	0.000	87	28271	1.00	0.99	
41 2-Butanone (MEK)	43	4.744	4.744	0.000	95	28880	2.00	2.21	
47 Chlorobromomethane	49	4.945	4.945	0.000	85	21906	1.00	0.9762	
48 Tetrahydrofuran	42	4.981	4.992	-0.011	85	17609	2.00	2.11	
49 Chloroform	83	5.004	5.004	0.000	93	20467	1.00	0.9136	
50 1,1,1-Trichloroethane	97	5.182	5.182	0.000	93	16409	1.00	0.9020	
51 Cyclohexane	84	5.241	5.241	0.000	90	21730	1.00	1.04	
53 Carbon tetrachloride	117	5.324	5.324	0.000	71	15465	1.00	0.9724	
52 1,1-Dichloropropene	75	5.324	5.324	0.000	83	15692	1.00	0.9243	
54 Isobutyl alcohol	41	5.371	5.371	0.000	88	25374	25.0	28.1	
56 1,2-Dichloroethane	62	5.501	5.501	0.000	68	26543	1.00	0.9754	
55 Benzene	78	5.501	5.501	0.000	90	49219	1.00	0.9849	
58 n-Heptane	71	5.714	5.702	0.012	91	16138	1.00	0.9255	
60 Trichloroethene	130	6.046	6.045	0.001	94	13793	1.00	0.7965	
62 Methylcyclohexane	83	6.223	6.223	0.000	91	20758	1.00	1.10	
63 1,2-Dichloropropane	63	6.235	6.235	0.000	82	17681	1.00	0.9867	
66 Dibromomethane	174	6.342	6.341	0.001	87	9273	1.00	0.9577	
65 1,4-Dioxane	88	6.353	6.341	0.012	37	2976	20.0	20.2	
67 Dichlorobromomethane	83	6.460	6.460	0.000	92	18155	1.00	1.05	
69 2-Chloroethyl vinyl ether	63	6.708	6.708	0.000	90	24747	2.00	1.90	
71 cis-1,3-Dichloropropene	75	6.850	6.850	0.000	77	16871	1.00	0.8672	
72 4-Methyl-2-pentanone (MIBK	43	6.969	6.968	0.001	98	54193	2.00	1.93	
73 Toluene	91	7.158	7.158	0.000	95	52915	1.00	0.9588	
74 trans-1,3-Dichloropropene	75	7.336	7.335	0.001	84	17329	1.00	0.8807	
75 Ethyl methacrylate	69	7.407	7.394	0.012	88	18822	1.00	0.9878	
76 1,1,2-Trichloroethane	97	7.501	7.501	0.000	89	12049	1.00	0.9320	
77 1,3-Dichloropropane	76	7.655	7.655	0.000	90	21967	1.00	1.00	
78 Tetrachloroethene	166	7.655	7.667	-0.012	80	14985	1.00	0.9469	
80 2-Hexanone	43	7.714	7.714	0.000	97	38664	2.00	1.95	
82 Chlorodibromomethane	129	7.868	7.868	0.000	86	13320	1.00	0.9606	
83 Ethylene Dibromide	107	7.986	7.986	0.000	94	12104	1.00	0.8267	
85 Chlorobenzene	112	8.448	8.436	0.012	95	43625	1.00	1.02	
86 1,1,1,2-Tetrachloroethane	131	8.507	8.507	0.000	84	14329	1.00	0.9754	
87 Ethylbenzene	106	8.531	8.530	0.001	96	20356	1.00	1.01	
88 m-Xylene & p-Xylene	106	8.637	8.637	0.000	96	23297	1.00	0.9165	
89 o-Xylene	106	9.016	9.016	0.000	86	23947	1.00	0.9863	
90 Styrene	104	9.028	9.027	0.001	84	38891	1.00	0.9579	
91 Bromoform	173	9.217	9.217	0.000	90	9163	1.00	0.9862	
92 Isopropylbenzene	105	9.371	9.371	0.001	95	52820	1.00	0.9100	
94 1,1,2,2-Tetrachloroethane	83	9.643	9.643	0.000	93	17762	1.00	0.99	
95 Bromobenzene	156	9.678	9.678	0.000	91	18050	1.00	1.11	
96 trans-1,4-Dichloro-2-buten	53	9.690	9.690	0.000	68	10522	1.00	0.9780	
97 1,2,3-Trichloropropane	110	9.690	9.690	0.000	85	7439	1.00	1.12	
98 N-Propylbenzene	120	9.761	9.761	0.000	98	16453	1.00	0.9590	
100 2-Chlorotoluene	126	9.856	9.856	0.000	94	13938	1.00	0.9092	
101 1,3,5-Trimethylbenzene	105	9.927	9.927	0.000	93	46170	1.00	0.9864	
102 4-Chlorotoluene	126	9.962	9.962	0.000	97	16042	1.00	0.9698	
104 tert-Butylbenzene	119	10.258	10.258	0.000	93	42858	1.00	0.9409	
106 1,2,4-Trimethylbenzene	105	10.306	10.305	0.001	96	48046	1.00	0.9828	
107 sec-Butylbenzene	134	10.471	10.471	0.000	94	12250	1.00	0.9198	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.590	10.589	0.001	95	31477	1.00	1.00	
109 4-Isopropyltoluene	119	10.613	10.613	0.000	97	48490	1.00	0.9737	
110 1,4-Dichlorobenzene	146	10.672	10.672	0.000	92	33636	1.00	1.02	
113 n-Butylbenzene	91	11.016	11.015	0.001	96	37272	1.00	0.99	
114 1,2-Dichlorobenzene	146	11.051	11.051	0.000	95	29052	1.00	0.9198	
115 1,2-Dibromo-3-Chloropropan	157	11.820	11.808	0.012	72	3605	1.00	0.9140	
117 1,2,4-Trichlorobenzene	180	12.648	12.648	0.000	92	18206	1.00	1.00	
118 Hexachlorobutadiene	225	12.826	12.826	0.000	85	7211	1.00	1.05	
119 Naphthalene	128	12.897	12.909	-0.012	97	56195	1.00	1.01	
120 1,2,3-Trichlorobenzene	180	13.169	13.169	0.000	90	14570	1.00	0.8912	
S 158 Total BTEX	1				0		5.00	4.86	
S 128 1,2-Dichloroethene, Total	96				0			1.96	
S 129 1,3-Dichloropropene, Total	75				0			1.75	
S 130 Trihalomethanes, Total	83				0		4.00	3.91	
S 131 Xylenes, Total	106				0		2.00	1.90	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	0.80	Units: uL
vmarolistdw_00206	Amount Added:	0.80	Units: uL
vmrprimw_00243	Amount Added:	0.80	Units: uL
vm50ss_00289	Amount Added:	0.80	Units: uL

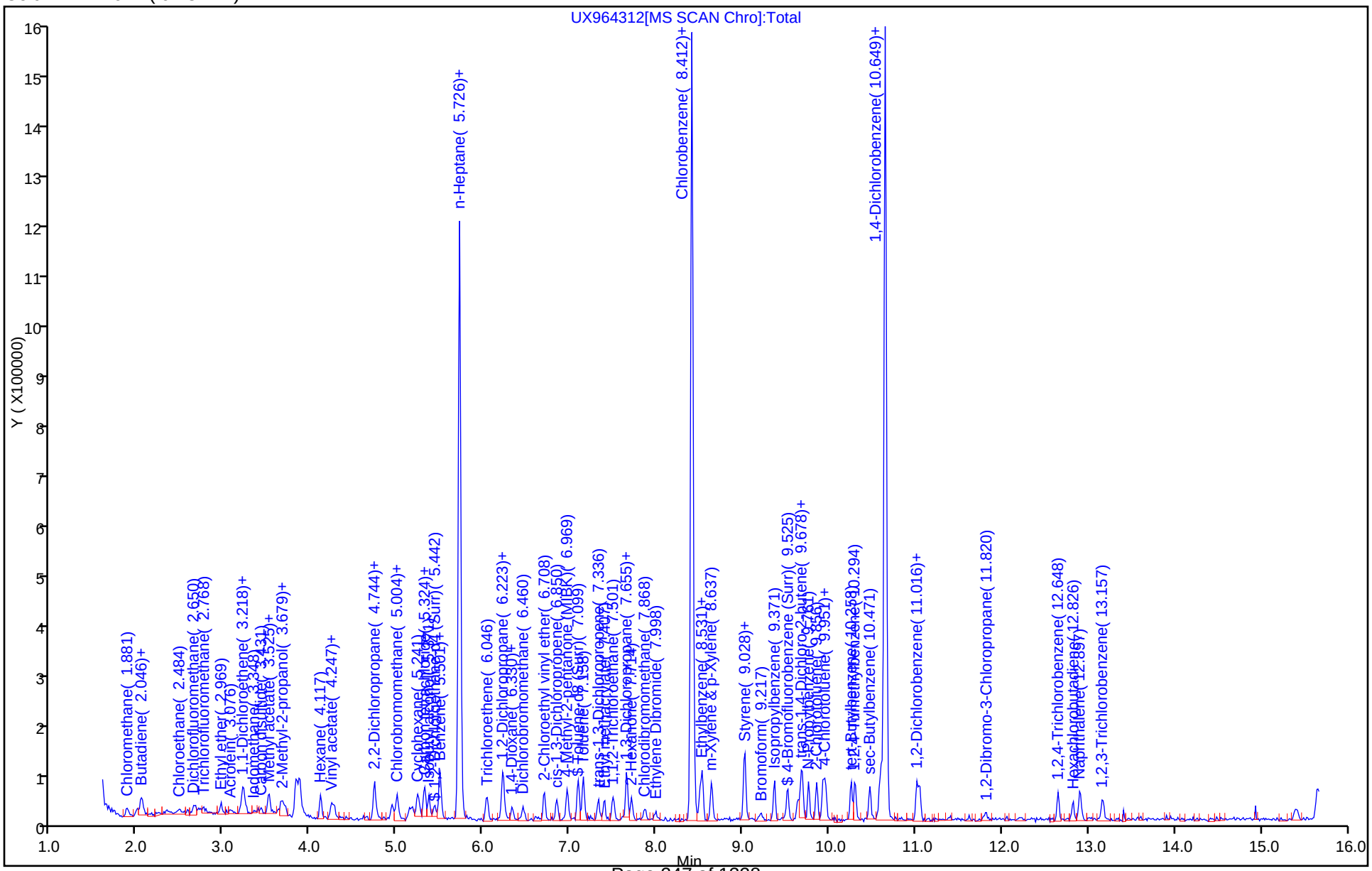
Report Date: 11-Jul-2017 14:47:21 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964312.D

Injection Date:	10-Jul-2017 19:57:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	std8260 L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Canton

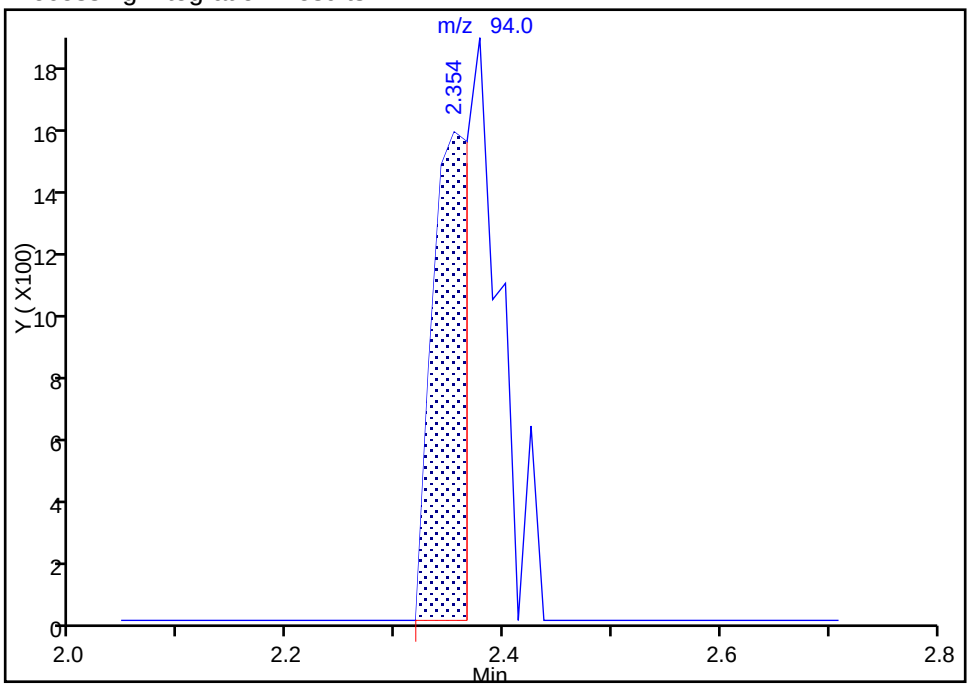
Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964312.D
Injection Date: 10-Jul-2017 19:57:30 Instrument ID: A3UX9
Lims ID: std8260 L2
Client ID:
Operator ID: 001904 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_9 Limit Group: MSV 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

13 Bromomethane, CAS: 74-83-9

Signal: 1

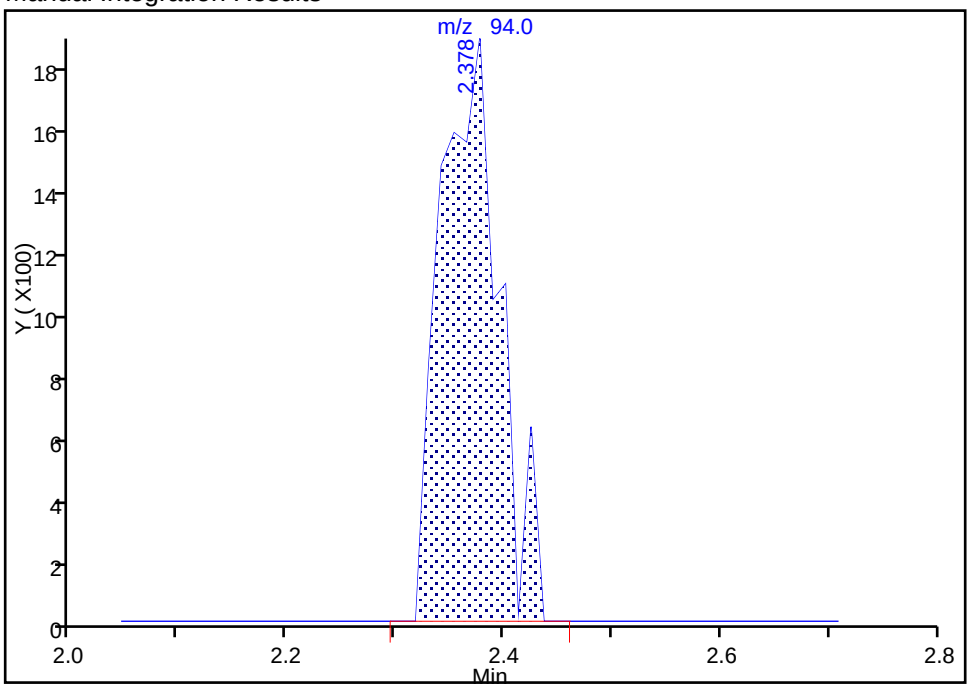
Processing Integration Results

RT: 2.35
Area: 3811
Amount: 0.629638
Amount Units: ug/l



Manual Integration Results

RT: 2.38
Area: 7074
Amount: 1.073406
Amount Units: ug/l



Reviewer: laveyt, 10-Jul-2017 21:08:57
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964313.D
Lims ID: std8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-Jul-2017 20:21:30 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-010
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:24 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 21:05:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.723	5.723	0.000	97	1026277	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.409	8.409	0.000	94	844665	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.646	0.000	94	461903	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.143	5.146	-0.003	93	122214	10.0	10.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.439	5.430	0.009	95	189491	10.0	10.1	
$ 6 Toluene-d8 (Surr)	98	7.096	7.099	-0.003	96	492526	10.0	10.6	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.524	-0.002	85	205835	10.0	10.2	
9 Dichlorodifluoromethane	85	1.700	1.715	-0.015	98	140101	10.0	10.7	
10 Chloromethane	50	1.878	1.880	-0.002	99	241556	10.0	9.43	
11 Vinyl chloride	62	2.008	1.999	0.009	99	169652	10.0	10.1	
12 Butadiene	54	2.055	2.046	0.009	92	235750	10.0	10.4	
13 Bromomethane	94	2.363	2.354	0.009	93	61807	10.0	9.48	
15 Chloroethane	64	2.481	2.472	0.009	91	95951	10.0	10.2	
16 Dichlorofluoromethane	67	2.659	2.649	0.010	96	193287	10.0	10.3	
17 Trichlorofluoromethane	101	2.730	2.720	0.010	95	147511	10.0	11.3	
18 Ethyl ether	59	2.966	2.969	-0.003	92	128406	10.0	10.5	
21 Acrolein	56	3.085	3.087	-0.002	97	87851	50.0	54.7	
24 1,1-Dichloroethene	61	3.215	3.217	-0.002	88	245173	10.0	10.4	
23 Acetone	43	3.227	3.217	0.010	95	141433	20.0	20.0	
22 1,1,2-Trichloro-1,2,2-trif	101	3.227	3.229	-0.002	72	91112	10.0	10.3	
25 Iodomethane	142	3.369	3.371	-0.002	99	156439	10.0	10.1	
26 Carbon disulfide	76	3.416	3.419	-0.003	93	206352	10.0	9.64	
28 3-Chloro-1-propene	41	3.511	3.513	-0.002	81	212669	10.0	10.2	
29 Methyl acetate	43	3.522	3.525	-0.003	99	326426	20.0	18.8	
30 Methylene Chloride	49	3.676	3.667	0.009	90	336510	10.0	9.35	
31 2-Methyl-2-propanol	59	3.712	3.714	-0.002	99	222525	100.0	100.9	
32 Acrylonitrile	53	3.830	3.833	-0.003	99	974555	100.0	103.3	
34 trans-1,2-Dichloroethene	61	3.877	3.868	0.009	69	261241	10.0	9.76	
33 Methyl tert-butyl ether	73	3.877	3.880	-0.003	94	401680	10.0	10.5	
35 Hexane	57	4.114	4.117	-0.003	94	246541	10.0	9.42	
36 1,1-Dichloroethane	63	4.244	4.247	-0.003	98	282983	10.0	9.95	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.280	4.271	0.009	97	458767	10.0	9.72	
42 2,2-Dichloropropane	77	4.741	4.744	-0.003	80	99605	10.0	10.4	
41 2-Butanone (MEK)	43	4.741	4.744	-0.003	85	239137	20.0	18.5	
43 cis-1,2-Dichloroethene	61	4.741	4.744	-0.003	91	278943	10.0	9.87	
47 Chlorobromomethane	49	4.942	4.945	-0.003	86	202866	10.0	9.13	
48 Tetrahydrofuran	42	4.990	4.992	-0.002	92	155426	20.0	18.8	
49 Chloroform	83	5.013	5.004	0.009	95	224395	10.0	10.1	
50 1,1,1-Trichloroethane	97	5.179	5.182	-0.003	95	184769	10.0	10.3	
51 Cyclohexane	84	5.238	5.241	-0.003	92	209890	10.0	10.2	
52 1,1-Dichloropropene	75	5.321	5.324	-0.003	82	172610	10.0	10.3	
53 Carbon tetrachloride	117	5.333	5.324	0.009	92	159151	10.0	10.1	
54 Isobutyl alcohol	41	5.368	5.371	-0.003	96	200386	250.0	224.4	
55 Benzene	78	5.498	5.501	-0.003	92	506738	10.0	10.2	
56 1,2-Dichloroethane	62	5.498	5.501	-0.003	94	266425	10.0	9.89	
58 n-Heptane	71	5.711	5.702	0.009	95	90235	10.0	10.1	
60 Trichloroethene	130	6.043	6.045	-0.002	91	142992	10.0	9.78	
62 Methylcyclohexane	83	6.220	6.223	-0.003	93	191318	10.0	10.2	
63 1,2-Dichloropropane	63	6.232	6.235	-0.003	86	172487	10.0	9.73	
65 1,4-Dioxane	88	6.339	6.341	-0.002	45	26576	200.0	182.2	
66 Dibromomethane	174	6.339	6.341	-0.002	92	90456	10.0	9.44	
67 Dichlorobromomethane	83	6.457	6.460	-0.003	93	170538	10.0	9.98	
69 2-Chloroethyl vinyl ether	63	6.705	6.708	-0.003	89	248394	20.0	19.3	
71 cis-1,3-Dichloropropene	75	6.847	6.850	-0.003	79	193227	10.0	10.0	
72 4-Methyl-2-pentanone (MIBK	43	6.966	6.968	-0.002	98	517141	20.0	18.6	
73 Toluene	91	7.155	7.158	-0.003	97	539928	10.0	10.1	
74 trans-1,3-Dichloropropene	75	7.333	7.335	-0.002	85	184069	10.0	9.68	
75 Ethyl methacrylate	69	7.404	7.394	0.010	87	185199	10.0	10.1	
76 1,1,2-Trichloroethane	97	7.498	7.501	-0.003	93	120926	10.0	9.68	
77 1,3-Dichloropropane	76	7.652	7.655	-0.003	89	217922	10.0	10.3	
78 Tetrachloroethene	166	7.664	7.667	-0.003	74	146701	10.0	9.59	
80 2-Hexanone	43	7.711	7.714	-0.003	99	374262	20.0	19.6	
82 Chlorodibromomethane	129	7.877	7.868	0.009	88	134998	10.0	10.1	
83 Ethylene Dibromide	107	7.983	7.986	-0.003	98	138569	10.0	9.79	
85 Chlorobenzene	112	8.445	8.436	0.009	93	401017	10.0	9.74	
86 1,1,1,2-Tetrachloroethane	131	8.504	8.507	-0.003	91	138840	10.0	9.78	
87 Ethylbenzene	106	8.539	8.530	0.009	97	209317	10.0	10.8	
88 m-Xylene & p-Xylene	106	8.646	8.637	0.009	98	256158	10.0	10.4	
89 o-Xylene	106	9.025	9.016	0.009	86	253744	10.0	10.8	
90 Styrene	104	9.025	9.027	-0.002	86	410766	10.0	10.5	
91 Bromoform	173	9.214	9.217	-0.003	95	88024	10.0	9.80	
92 Isopropylbenzene	105	9.368	9.371	-0.002	96	593909	10.0	10.6	
94 1,1,2,2-Tetrachloroethane	83	9.640	9.643	-0.003	97	183242	10.0	10.2	
95 Bromobenzene	156	9.675	9.678	-0.003	88	170402	10.0	10.4	
97 1,2,3-Trichloropropane	110	9.687	9.690	-0.003	91	68692	10.0	10.3	
96 trans-1,4-Dichloro-2-buten	53	9.687	9.690	-0.003	72	106377	10.0	9.84	
98 N-Propylbenzene	120	9.770	9.761	0.009	98	179532	10.0	10.4	
100 2-Chlorotoluene	126	9.865	9.856	0.009	96	158020	10.0	10.3	
101 1,3,5-Trimethylbenzene	105	9.936	9.927	0.009	97	482370	10.0	10.3	
102 4-Chlorotoluene	126	9.959	9.962	-0.003	98	169513	10.0	10.2	
104 tert-Butylbenzene	119	10.255	10.258	-0.003	93	510157	10.0	11.1	
106 1,2,4-Trimethylbenzene	105	10.303	10.305	-0.002	94	509624	10.0	10.4	
107 sec-Butylbenzene	134	10.468	10.471	-0.003	95	134969	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.587	10.589	-0.002	96	322247	10.0	10.2	
109 4-Isopropyltoluene	119	10.610	10.613	-0.003	98	532898	10.0	10.7	
110 1,4-Dichlorobenzene	146	10.669	10.672	-0.003	93	331368	10.0	10.0	
113 n-Butylbenzene	91	11.013	11.015	-0.002	97	392284	10.0	10.4	
114 1,2-Dichlorobenzene	146	11.048	11.051	-0.003	96	323775	10.0	10.2	
115 1,2-Dibromo-3-Chloropropan	157	11.817	11.808	0.009	90	39585	10.0	9.99	
117 1,2,4-Trichlorobenzene	180	12.645	12.648	-0.003	95	164148	10.0	8.97	
118 Hexachlorobutadiene	225	12.823	12.826	-0.003	95	67236	10.0	9.74	
119 Naphthalene	128	12.906	12.909	-0.003	97	528575	10.0	9.44	
120 1,2,3-Trichlorobenzene	180	13.166	13.169	-0.003	94	148474	10.0	9.04	
S 158 Total BTEX	1				0		50.0	52.4	
S 128 1,2-Dichloroethene, Total	96				0			19.6	
S 129 1,3-Dichloropropene, Total	75				0			19.7	
S 130 Trihalomethanes, Total	83				0		40.0	40.0	
S 131 Xylenes, Total	106				0		20.0	21.2	

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	8.00	Units: uL
vmarolistdw_00206	Amount Added:	8.00	Units: uL
vmrprimw_00243	Amount Added:	8.00	Units: uL
vm50ss_00289	Amount Added:	8.00	Units: uL

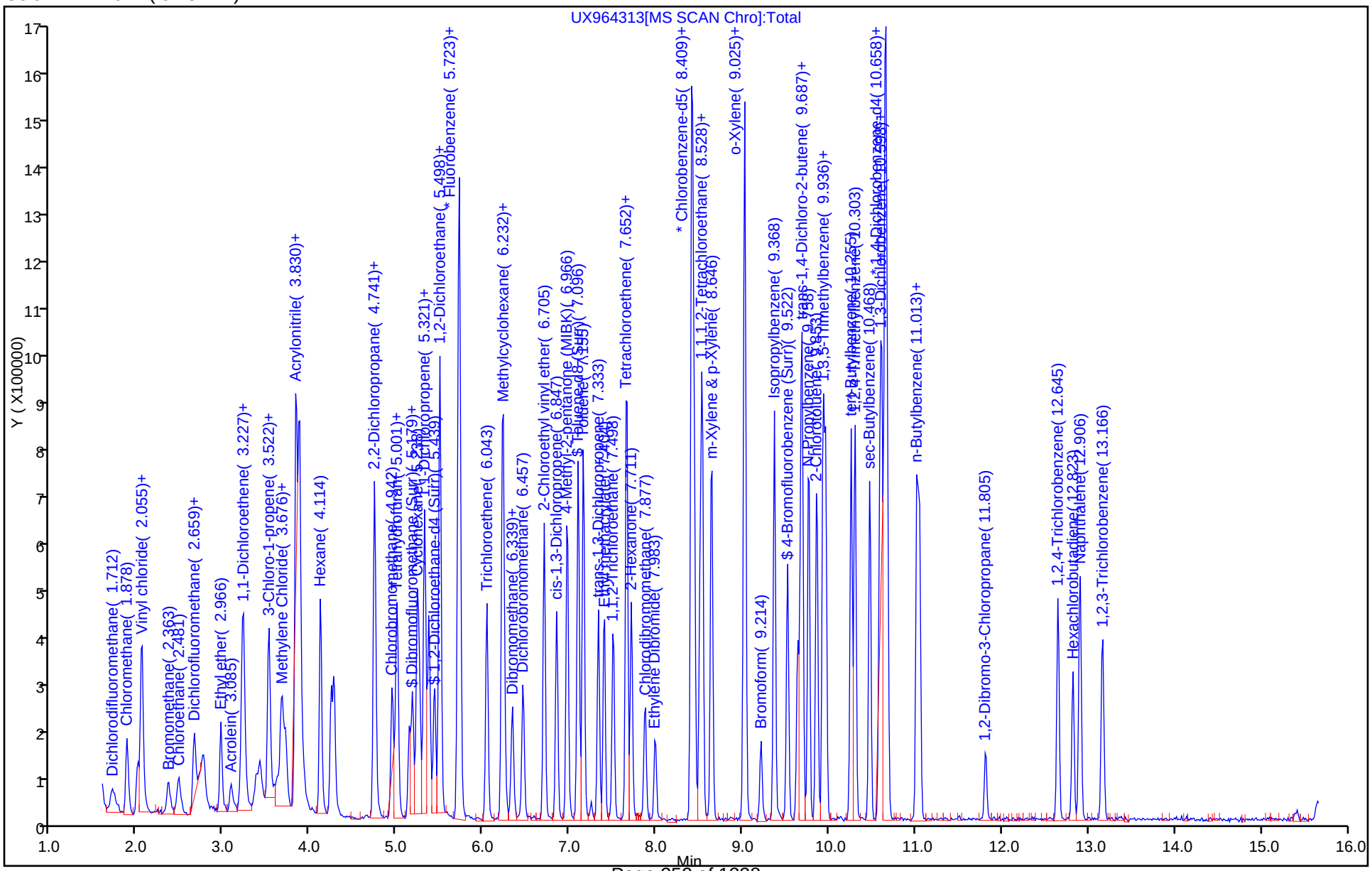
Report Date: 11-Jul-2017 14:47:27 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964313.D

Injection Date:	10-Jul-2017 20:21:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	std8260 L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964314.D
Lims ID: ICIS L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 10-Jul-2017 20:45:30 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-011
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:29 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 21:20:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.726	5.726	0.000	98	1047734	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.412	8.412	0.000	93	872831	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.648	10.648	0.000	94	471730	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.146	5.146	0.000	93	237841	20.0	19.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.430	5.430	0.000	96	360351	20.0	18.9	
$ 6 Toluene-d8 (Surr)	98	7.099	7.099	0.000	95	948447	20.0	19.8	
$ 7 4-Bromofluorobenzene (Surr	95	9.524	9.524	0.000	90	405432	20.0	19.4	
9 Dichlorodifluoromethane	85	1.715	1.715	0.000	96	255224	20.0	19.0	
10 Chloromethane	50	1.880	1.880	0.000	100	473233	20.0	18.1	
11 Vinyl chloride	62	1.999	1.999	0.000	98	331515	20.0	19.3	
12 Butadiene	54	2.046	2.046	0.000	94	441112	20.0	19.1	
13 Bromomethane	94	2.354	2.354	0.000	90	119994	20.0	18.0	
15 Chloroethane	64	2.472	2.472	0.000	94	168181	20.0	17.5	
16 Dichlorofluoromethane	67	2.649	2.649	0.000	96	369334	20.0	19.3	
17 Trichlorofluoromethane	101	2.720	2.720	0.000	98	273613	20.0	20.6	
18 Ethyl ether	59	2.969	2.969	0.000	92	246924	20.0	19.8	
21 Acrolein	56	3.087	3.087	0.000	99	174274	100.0	106.3	
23 Acetone	43	3.217	3.217	0.000	97	279552	40.0	40.6	
24 1,1-Dichloroethene	61	3.217	3.217	0.000	88	456159	20.0	18.9	
22 1,1,2-Trichloro-1,2,2-trif	101	3.229	3.229	0.000	73	174151	20.0	19.3	
25 Iodomethane	142	3.371	3.371	0.000	99	313744	20.0	19.9	
26 Carbon disulfide	76	3.419	3.419	0.000	93	433940	20.0	19.9	
28 3-Chloro-1-propene	41	3.513	3.513	0.000	82	459546	20.0	22.4	
29 Methyl acetate	43	3.525	3.525	0.000	98	647477	40.0	36.6	
30 Methylene Chloride	49	3.667	3.667	0.000	90	633397	20.0	17.2	
31 2-Methyl-2-propanol	59	3.714	3.714	0.000	99	430058	200.0	191.0	
32 Acrylonitrile	53	3.833	3.833	0.000	99	1914226	200.0	198.7	
34 trans-1,2-Dichloroethene	61	3.868	3.868	0.000	74	515456	20.0	18.9	
33 Methyl tert-butyl ether	73	3.880	3.880	0.000	92	791403	20.0	20.2	
35 Hexane	57	4.117	4.117	0.000	95	498028	20.0	18.6	
36 1,1-Dichloroethane	63	4.247	4.247	0.000	97	574775	20.0	19.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.271	4.271	0.000	97	936827	20.0	19.4	
42 2,2-Dichloropropane	77	4.744	4.744	0.000	77	199807	20.0	20.4	
43 cis-1,2-Dichloroethene	61	4.744	4.744	0.000	92	576538	20.0	20.0	
41 2-Butanone (MEK)	43	4.744	4.744	0.000	84	495469	40.0	37.5	
47 Chlorobromomethane	49	4.945	4.945	0.000	86	427215	20.0	18.8	
48 Tetrahydrofuran	42	4.992	4.992	0.000	93	324111	40.0	38.4	
49 Chloroform	83	5.004	5.004	0.000	95	437191	20.0	19.3	
50 1,1,1-Trichloroethane	97	5.182	5.182	0.000	93	375974	20.0	20.5	
51 Cyclohexane	84	5.241	5.241	0.000	92	402180	20.0	19.1	
53 Carbon tetrachloride	117	5.324	5.324	0.000	96	321035	20.0	20.0	
52 1,1-Dichloropropene	75	5.324	5.324	0.000	91	331584	20.0	19.3	
54 Isobutyl alcohol	41	5.371	5.371	0.000	95	430416	500.0	472.1	
56 1,2-Dichloroethane	62	5.501	5.501	0.000	69	539869	20.0	19.6	
55 Benzene	78	5.501	5.501	0.000	92	1005231	20.0	19.9	
58 n-Heptane	71	5.702	5.702	0.000	94	183763	20.0	21.2	
60 Trichloroethene	130	6.045	6.045	0.000	90	296978	20.0	20.1	
62 Methylcyclohexane	83	6.223	6.223	0.000	93	382828	20.0	20.0	
63 1,2-Dichloropropane	63	6.235	6.235	0.000	86	341134	20.0	18.8	
66 Dibromomethane	174	6.341	6.341	0.000	93	195926	20.0	20.0	
65 1,4-Dioxane	88	6.341	6.341	0.000	46	68061	400.0	457.1	
67 Dichlorobromomethane	83	6.460	6.460	0.000	93	344947	20.0	19.8	
69 2-Chloroethyl vinyl ether	63	6.708	6.708	0.000	89	512981	40.0	39.1	
71 cis-1,3-Dichloropropene	75	6.850	6.850	0.000	79	400039	20.0	20.4	
72 4-Methyl-2-pentanone (MIBK	43	6.968	6.968	0.000	98	1044080	40.0	36.9	
73 Toluene	91	7.158	7.158	0.000	96	1099891	20.0	20.0	
74 trans-1,3-Dichloropropene	75	7.335	7.335	0.000	86	382769	20.0	19.5	
75 Ethyl methacrylate	69	7.394	7.394	0.000	87	375271	20.0	19.7	
76 1,1,2-Trichloroethane	97	7.501	7.501	0.000	93	253458	20.0	19.6	
77 1,3-Dichloropropane	76	7.655	7.655	0.000	86	428160	20.0	19.6	
78 Tetrachloroethene	166	7.667	7.667	0.000	76	291724	20.0	18.5	
80 2-Hexanone	43	7.714	7.714	0.000	99	751654	40.0	38.0	
82 Chlorodibromomethane	129	7.868	7.868	0.000	88	271426	20.0	19.6	
83 Ethylene Dibromide	107	7.986	7.986	0.000	99	286535	20.0	19.6	
85 Chlorobenzene	112	8.436	8.436	0.000	92	796403	20.0	18.7	
86 1,1,1,2-Tetrachloroethane	131	8.507	8.507	0.000	90	281512	20.0	19.2	
87 Ethylbenzene	106	8.530	8.530	0.000	97	417126	20.0	20.8	
88 m-Xylene & p-Xylene	106	8.637	8.637	0.000	97	510946	20.0	20.1	
89 o-Xylene	106	9.016	9.016	0.000	94	502029	20.0	20.7	
90 Styrene	104	9.027	9.027	0.000	86	857615	20.0	21.2	
91 Bromoform	173	9.217	9.217	0.000	96	185843	20.0	20.0	
92 Isopropylbenzene	105	9.371	9.371	0.000	96	1180073	20.0	20.4	
94 1,1,2,2-Tetrachloroethane	83	9.643	9.643	0.000	97	361393	20.0	19.7	
95 Bromobenzene	156	9.678	9.678	0.000	91	335339	20.0	20.1	
96 trans-1,4-Dichloro-2-buten	53	9.690	9.690	0.000	78	219855	20.0	19.9	
97 1,2,3-Trichloropropane	110	9.690	9.690	0.000	90	137612	20.0	20.1	
98 N-Propylbenzene	120	9.761	9.761	0.000	98	374633	20.0	21.3	
100 2-Chlorotoluene	126	9.856	9.856	0.000	96	330097	20.0	21.0	
101 1,3,5-Trimethylbenzene	105	9.927	9.927	0.000	96	997890	20.0	20.8	
102 4-Chlorotoluene	126	9.962	9.962	0.000	97	353205	20.0	20.8	
104 tert-Butylbenzene	119	10.258	10.258	0.000	94	951528	20.0	20.4	
106 1,2,4-Trimethylbenzene	105	10.305	10.305	0.000	94	1050699	20.0	20.9	
107 sec-Butylbenzene	134	10.471	10.471	0.000	95	293030	20.0	21.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.589	10.589	0.000	96	648060	20.0	20.1	
109 4-Isopropyltoluene	119	10.613	10.613	0.000	97	1078347	20.0	21.1	
110 1,4-Dichlorobenzene	146	10.672	10.672	0.000	92	682234	20.0	20.2	
113 n-Butylbenzene	91	11.015	11.015	0.000	96	805741	20.0	20.9	
114 1,2-Dichlorobenzene	146	11.051	11.051	0.000	97	640372	20.0	19.8	
115 1,2-Dibromo-3-Chloropropan	157	11.808	11.808	0.000	75	82740	20.0	20.4	
117 1,2,4-Trichlorobenzene	180	12.648	12.648	0.000	95	364175	20.0	19.5	
118 Hexachlorobutadiene	225	12.826	12.826	0.000	95	139918	20.0	19.9	
119 Naphthalene	128	12.909	12.909	0.000	97	1205725	20.0	21.1	
120 1,2,3-Trichlorobenzene	180	13.169	13.169	0.000	95	346017	20.0	20.6	
S 158 Total BTEX	1				0		100.0	101.5	
S 130 Trihalomethanes, Total	83				0		80.0	78.7	
S 131 Xylenes, Total	106				0		40.0	40.8	

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	16.00	Units: uL
vmarolistdw_00206	Amount Added:	16.00	Units: uL
vmrprimw_00243	Amount Added:	16.00	Units: uL
vm50ss_00289	Amount Added:	16.00	Units: uL

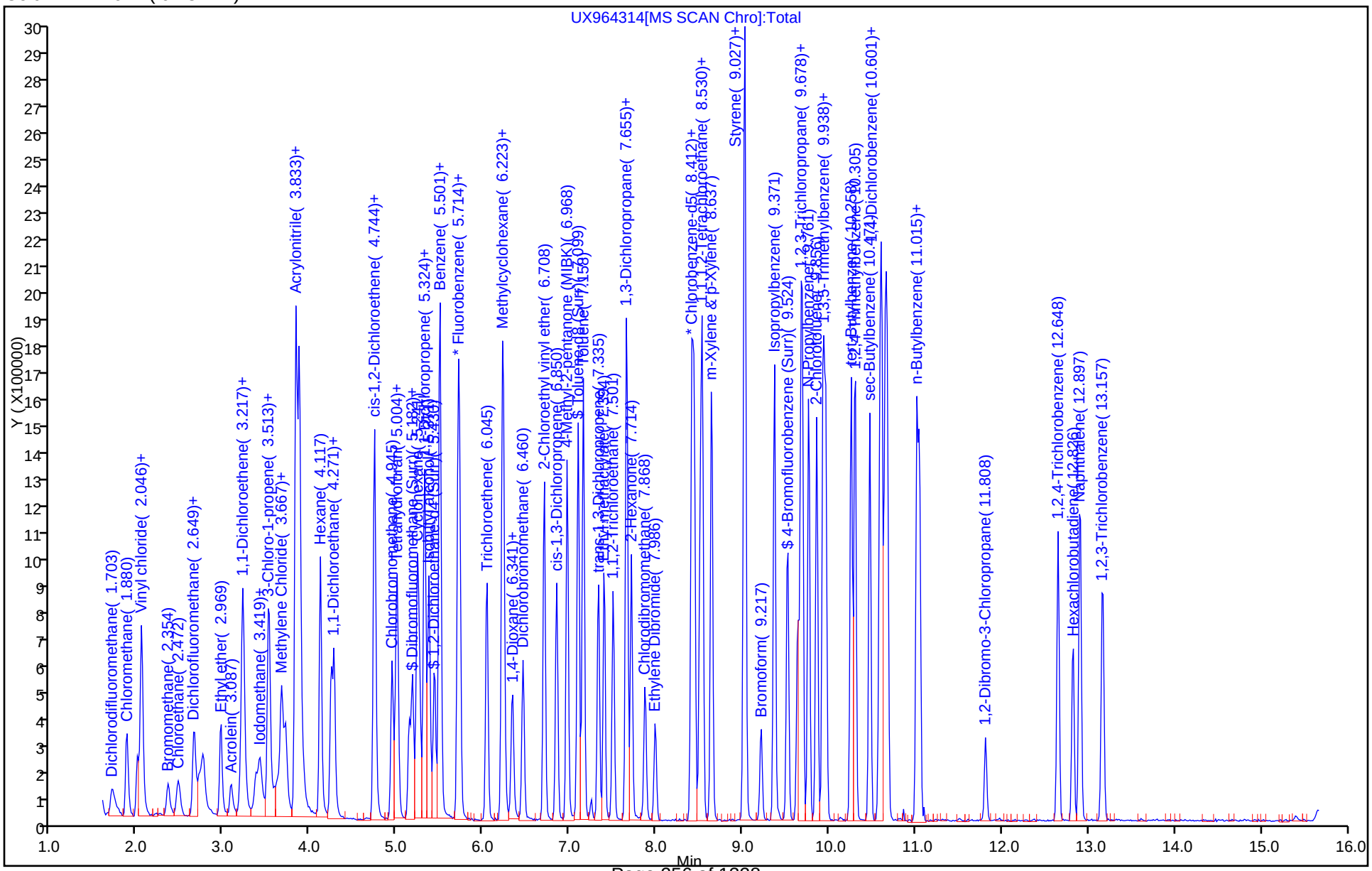
Report Date: 11-Jul-2017 14:47:31 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964314.D

Injection Date:	10-Jul-2017 20:45:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	ICIS L4			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964315.D
Lims ID: std8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 10-Jul-2017 21:09:30 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-012
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:33 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 21:52:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.726	-0.002	97	1034954	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.412	-0.002	93	874501	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.648	-0.002	93	485771	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.146	-0.002	93	458735	40.0	38.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.430	0.010	96	715422	40.0	38.0	
$ 6 Toluene-d8 (Surr)	98	7.096	7.099	-0.003	95	1801090	40.0	37.5	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.524	-0.002	88	764602	40.0	36.5	
9 Dichlorodifluoromethane	85	1.712	1.715	-0.003	97	537404	40.0	40.6	
10 Chloromethane	50	1.878	1.880	-0.002	100	928869	40.0	36.0	
11 Vinyl chloride	62	1.996	1.999	-0.003	100	637709	40.0	37.6	
12 Butadiene	54	2.044	2.046	-0.002	95	875331	40.0	38.3	
13 Bromomethane	94	2.351	2.354	-0.003	92	228054	40.0	34.7	
15 Chloroethane	64	2.470	2.472	-0.002	92	359537	40.0	37.8	
16 Dichlorofluoromethane	67	2.659	2.649	0.010	96	694339	40.0	36.8	
17 Trichlorofluoromethane	101	2.718	2.720	-0.002	97	538341	40.0	41.0	
18 Ethyl ether	59	2.967	2.969	-0.002	89	461056	40.0	37.4	
21 Acrolein	56	3.085	3.087	-0.002	99	322469	200.0	199.1	
24 1,1-Dichloroethene	61	3.215	3.217	-0.002	88	926347	40.0	38.8	
23 Acetone	43	3.227	3.217	0.010	96	518457	80.0	78.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.227	3.229	-0.002	78	356367	40.0	39.9	
25 Iodomethane	142	3.369	3.371	-0.002	98	617165	40.0	39.7	
26 Carbon disulfide	76	3.416	3.419	-0.003	92	802561	40.0	37.2	
28 3-Chloro-1-propene	41	3.511	3.513	-0.002	82	830192	40.0	41.6	
29 Methyl acetate	43	3.523	3.525	-0.002	99	1283141	80.0	73.4	
30 Methylene Chloride	49	3.665	3.667	-0.002	87	1343588	40.0	37.0	
31 2-Methyl-2-propanol	59	3.712	3.714	-0.002	98	887440	400.0	398.9	
32 Acrylonitrile	53	3.831	3.833	-0.002	98	4031827	400.0	423.8	
34 trans-1,2-Dichloroethene	61	3.866	3.868	-0.002	80	1049737	40.0	38.9	
33 Methyl tert-butyl ether	73	3.878	3.880	-0.002	90	1522861	40.0	39.4	
35 Hexane	57	4.115	4.117	-0.002	95	1063048	40.0	40.3	
36 1,1-Dichloroethane	63	4.245	4.247	-0.002	98	1146003	40.0	40.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.268	4.271	-0.003	97	2033252	40.0	42.7	
42 2,2-Dichloropropane	77	4.742	4.744	-0.002	79	384867	40.0	39.7	
41 2-Butanone (MEK)	43	4.742	4.744	-0.002	88	1006444	80.0	77.0	
43 cis-1,2-Dichloroethene	61	4.742	4.744	-0.002	92	1121650	40.0	39.4	
47 Chlorobromomethane	49	4.943	4.945	-0.002	84	838807	40.0	37.5	
48 Tetrahydrofuran	42	4.990	4.992	-0.002	91	662119	80.0	79.5	
49 Chloroform	83	5.002	5.004	-0.002	93	849082	40.0	38.0	
50 1,1,1-Trichloroethane	97	5.179	5.182	-0.003	93	753891	40.0	41.5	
51 Cyclohexane	84	5.239	5.241	-0.002	92	796175	40.0	38.3	
52 1,1-Dichloropropene	75	5.321	5.324	-0.003	85	654381	40.0	38.6	
53 Carbon tetrachloride	117	5.333	5.324	0.009	94	653339	40.0	41.2	
54 Isobutyl alcohol	41	5.369	5.371	-0.002	96	898344	1000.0	997.6	
55 Benzene	78	5.499	5.501	-0.002	90	1908527	40.0	38.3	
56 1,2-Dichloroethane	62	5.499	5.501	-0.002	94	1072383	40.0	39.5	
58 n-Heptane	71	5.712	5.702	0.010	95	359055	40.0	43.0	
60 Trichloroethene	130	6.043	6.045	-0.002	90	567389	40.0	38.9	
62 Methylcyclohexane	83	6.221	6.223	-0.002	93	750685	40.0	39.7	
63 1,2-Dichloropropane	63	6.233	6.235	-0.002	84	659571	40.0	36.9	
65 1,4-Dioxane	88	6.339	6.341	-0.002	86	118543	800.0	806.0	
66 Dibromomethane	174	6.339	6.341	-0.002	94	373580	40.0	38.7	
67 Dichlorobromomethane	83	6.457	6.460	-0.003	93	678387	40.0	39.4	
69 2-Chloroethyl vinyl ether	63	6.706	6.708	-0.002	87	1026916	80.0	79.2	
71 cis-1,3-Dichloropropene	75	6.848	6.850	-0.002	79	787913	40.0	40.6	
72 4-Methyl-2-pentanone (MIBK	43	6.966	6.968	-0.002	99	2196288	80.0	78.5	
73 Toluene	91	7.156	7.158	-0.002	96	2095803	40.0	38.0	
74 trans-1,3-Dichloropropene	75	7.333	7.335	-0.002	85	769984	40.0	39.1	
75 Ethyl methacrylate	69	7.404	7.394	0.010	88	759667	40.0	39.8	
76 1,1,2-Trichloroethane	97	7.499	7.501	-0.002	92	488528	40.0	37.8	
77 1,3-Dichloropropane	76	7.664	7.655	0.009	85	823180	40.0	37.6	
78 Tetrachloroethene	166	7.664	7.667	-0.003	68	568375	40.0	35.9	
80 2-Hexanone	43	7.712	7.714	-0.002	99	1613416	80.0	81.5	
82 Chlorodibromomethane	129	7.877	7.868	0.009	88	557838	40.0	40.2	
83 Ethylene Dibromide	107	7.984	7.986	-0.002	98	560911	40.0	38.3	
85 Chlorobenzene	112	8.445	8.436	0.009	90	1518065	40.0	35.6	
86 1,1,1,2-Tetrachloroethane	131	8.504	8.507	-0.003	91	572753	40.0	39.0	
87 Ethylbenzene	106	8.540	8.530	0.010	97	781284	40.0	38.8	
88 m-Xylene & p-Xylene	106	8.646	8.637	0.009	97	981740	40.0	38.6	
89 o-Xylene	106	9.025	9.016	0.009	96	938127	40.0	38.6	
90 Styrene	104	9.025	9.027	-0.002	90	1634456	40.0	40.2	
91 Bromoform	173	9.214	9.217	-0.003	96	395062	40.0	42.5	
92 Isopropylbenzene	105	9.368	9.371	-0.002	96	2289798	40.0	39.4	
94 1,1,2,2-Tetrachloroethane	83	9.640	9.643	-0.003	97	725221	40.0	38.3	
95 Bromobenzene	156	9.676	9.678	-0.002	87	666438	40.0	38.7	
97 1,2,3-Trichloropropane	110	9.688	9.690	-0.002	90	257546	40.0	36.6	
96 trans-1,4-Dichloro-2-buten	53	9.688	9.690	-0.002	77	457796	40.0	40.3	
98 N-Propylbenzene	120	9.771	9.761	0.010	97	707509	40.0	39.0	
100 2-Chlorotoluene	126	9.853	9.856	-0.003	95	622615	40.0	38.4	
101 1,3,5-Trimethylbenzene	105	9.936	9.927	0.009	96	1887749	40.0	38.2	
102 4-Chlorotoluene	126	9.960	9.962	-0.002	97	656274	40.0	37.6	
104 tert-Butylbenzene	119	10.256	10.258	-0.002	94	2005249	40.0	41.7	
106 1,2,4-Trimethylbenzene	105	10.303	10.305	-0.002	94	1995924	40.0	38.6	
107 sec-Butylbenzene	134	10.469	10.471	-0.002	95	548121	40.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.587	10.589	-0.002	97	1265957	40.0	38.2	
109 4-Isopropyltoluene	119	10.611	10.613	-0.002	97	2067510	40.0	39.3	
110 1,4-Dichlorobenzene	146	10.670	10.672	-0.002	95	1306839	40.0	37.5	
113 n-Butylbenzene	91	11.013	11.015	-0.002	96	1569204	40.0	39.5	
114 1,2-Dichlorobenzene	146	11.049	11.051	-0.002	96	1251743	40.0	37.5	
115 1,2-Dibromo-3-Chloropropan	157	11.818	11.808	0.010	78	173204	40.0	41.6	
117 1,2,4-Trichlorobenzene	180	12.646	12.648	-0.002	95	707061	40.0	36.8	
118 Hexachlorobutadiene	225	12.823	12.826	-0.003	96	287201	40.0	39.6	
119 Naphthalene	128	12.906	12.909	-0.003	97	2359984	40.0	40.1	
120 1,2,3-Trichlorobenzene	180	13.167	13.169	-0.002	95	667466	40.0	38.6	
S 158 Total BTEX	1				0		200.0	192.2	
S 128 1,2-Dichloroethene, Total	96				0			78.2	
S 129 1,3-Dichloropropene, Total	75				0			79.7	
S 130 Trihalomethanes, Total	83				0		160.0	160.0	
S 131 Xylenes, Total	106				0		80.0	77.2	

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	32.00	Units: uL
vmarolistdw_00206	Amount Added:	32.00	Units: uL
vmrprimw_00243	Amount Added:	32.00	Units: uL
vm50ss_00289	Amount Added:	32.00	Units: uL

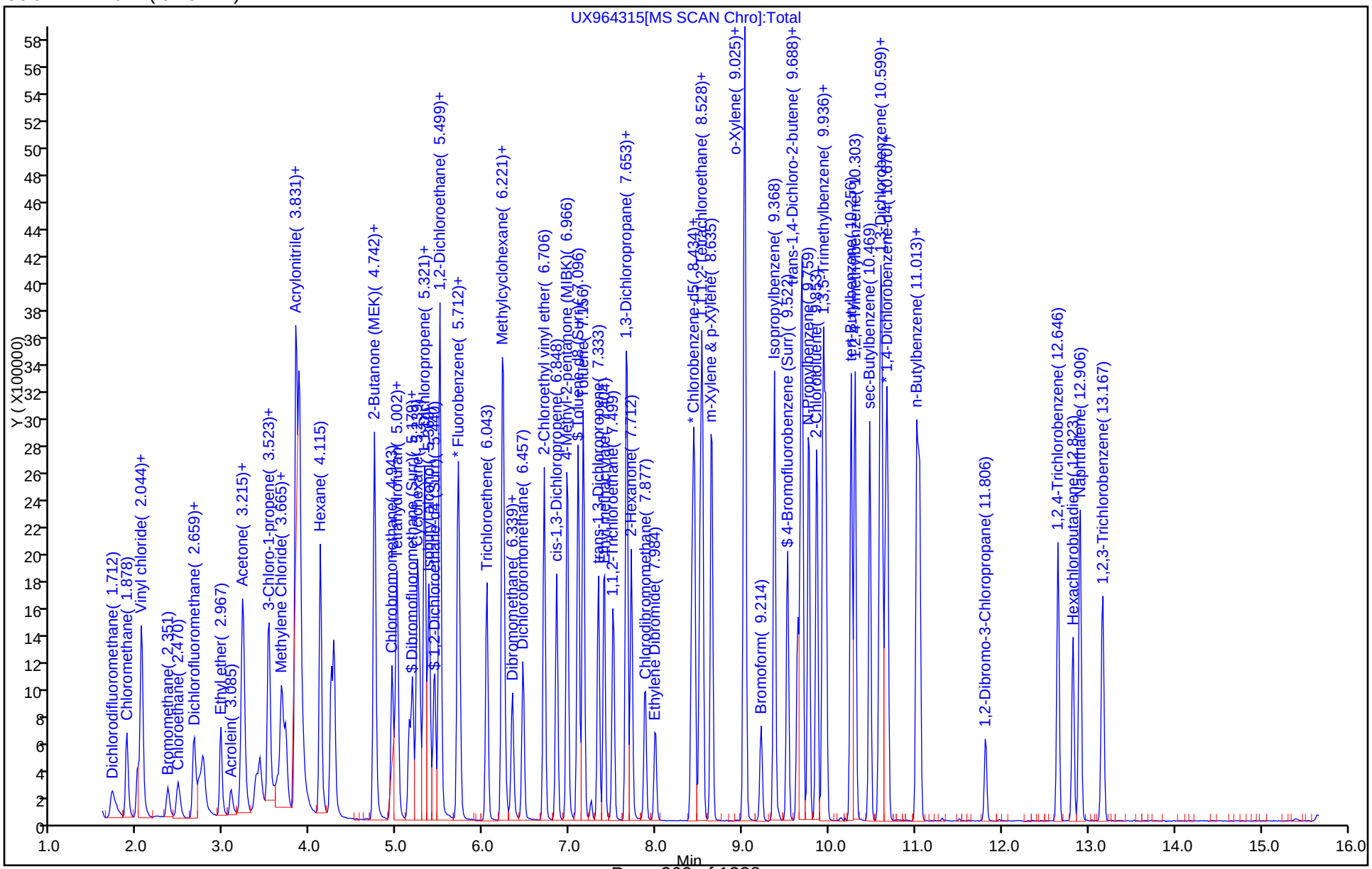
Report Date: 11-Jul-2017 14:47:34 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964315.D

Injection Date:	10-Jul-2017 21:09:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	std8260 L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964316.D
Lims ID: std8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 10-Jul-2017 21:33:30 ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-013
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:47:36 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: laveyt Date: 10-Jul-2017 22:12:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.726	5.726	0.000	97	1028635	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.412	8.412	0.000	92	873889	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.648	10.648	0.000	92	508852	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.146	5.146	0.000	93	743371	60.0	62.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.430	5.430	0.000	95	1163532	60.0	62.1	
$ 6 Toluene-d8 (Surr)	98	7.098	7.099	-0.001	95	2833731	60.0	59.0	
$ 7 4-Bromofluorobenzene (Surr	95	9.524	9.524	0.000	91	1203507	60.0	57.5	
9 Dichlorodifluoromethane	85	1.703	1.715	-0.012	97	808257	60.0	61.4	
10 Chloromethane	50	1.880	1.880	0.000	100	1509927	60.0	58.8	
11 Vinyl chloride	62	2.010	1.999	0.011	99	1014296	60.0	60.1	
12 Butadiene	54	2.046	2.046	0.000	95	1303739	60.0	57.4	
13 Bromomethane	94	2.353	2.354	-0.001	90	385098	60.0	58.9	
15 Chloroethane	64	2.472	2.472	0.000	92	535124	60.0	56.6	
16 Dichlorofluoromethane	67	2.649	2.649	0.000	96	1056068	60.0	56.3	
17 Trichlorofluoromethane	101	2.708	2.720	-0.012	97	768640	60.0	59.0	
18 Ethyl ether	59	2.969	2.969	0.000	90	711442	60.0	58.1	
21 Acrolein	56	3.087	3.087	0.000	98	471125	300.0	292.7	
23 Acetone	43	3.217	3.217	0.000	97	793413	120.0	121.4	
24 1,1-Dichloroethene	61	3.217	3.217	0.000	87	1392024	60.0	58.7	
22 1,1,2-Trichloro-1,2,2-trif	101	3.229	3.229	0.000	75	482707	60.0	54.4	
25 Iodomethane	142	3.371	3.371	0.000	100	951217	60.0	61.5	
26 Carbon disulfide	76	3.418	3.419	-0.001	92	1239406	60.0	57.8	
28 3-Chloro-1-propene	41	3.513	3.513	0.000	81	1106877	60.0	56.0	
29 Methyl acetate	43	3.525	3.525	0.000	98	1925983	120.0	110.8	
30 Methylene Chloride	49	3.667	3.667	0.000	86	2116768	60.0	58.7	
31 2-Methyl-2-propanol	59	3.714	3.714	0.000	99	1389337	600.0	628.4	
32 Acrylonitrile	53	3.832	3.833	-0.001	98	5983387	600.0	632.8	
34 trans-1,2-Dichloroethene	61	3.868	3.868	0.000	86	1640978	60.0	61.2	
33 Methyl tert-butyl ether	73	3.880	3.880	0.000	89	2440816	60.0	63.6	
35 Hexane	57	4.116	4.117	-0.001	95	1446072	60.0	55.1	
36 1,1-Dichloroethane	63	4.235	4.247	-0.012	98	1819379	60.0	63.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.270	4.271	-0.001	97	3315669	60.0	70.1	
42 2,2-Dichloropropane	77	4.744	4.744	0.000	52	565034	60.0	58.7	
43 cis-1,2-Dichloroethene	61	4.744	4.744	0.000	92	1777650	60.0	62.8	
41 2-Butanone (MEK)	43	4.744	4.744	0.000	86	1538829	120.0	118.5	
47 Chlorobromomethane	49	4.945	4.945	0.000	84	1383801	60.0	62.2	
48 Tetrahydrofuran	42	4.992	4.992	0.000	91	1041393	120.0	125.8	
49 Chloroform	83	5.004	5.004	0.000	94	1342592	60.0	60.4	
50 1,1,1-Trichloroethane	97	5.181	5.182	-0.001	94	1169259	60.0	64.8	
51 Cyclohexane	84	5.241	5.241	0.000	92	1178063	60.0	57.0	
53 Carbon tetrachloride	117	5.323	5.324	-0.001	91	1009036	60.0	64.0	
52 1,1-Dichloropropene	75	5.323	5.324	-0.001	78	992095	60.0	58.9	
54 Isobutyl alcohol	41	5.371	5.371	0.000	94	1420948	1500.0	1587.6	
56 1,2-Dichloroethane	62	5.501	5.501	0.000	94	1661126	60.0	61.5	
55 Benzene	78	5.501	5.501	0.000	90	2951422	60.0	59.5	
58 n-Heptane	71	5.702	5.702	0.000	96	461126	60.0	55.8	
60 Trichloroethene	130	6.045	6.045	0.000	89	886510	60.0	61.3	
62 Methylcyclohexane	83	6.223	6.223	0.000	91	1058183	60.0	56.4	
63 1,2-Dichloropropane	63	6.234	6.235	-0.001	84	1021230	60.0	57.5	
66 Dibromomethane	174	6.341	6.341	0.000	93	591463	60.0	61.6	
65 1,4-Dioxane	88	6.341	6.341	0.000	87	182372	1200.0	1247.7	
67 Dichlorobromomethane	83	6.459	6.460	-0.001	93	1081167	60.0	63.1	
69 2-Chloroethyl vinyl ether	63	6.708	6.708	0.000	86	1560694	120.0	121.0	
71 cis-1,3-Dichloropropene	75	6.850	6.850	0.000	77	1245390	60.0	64.5	
72 4-Methyl-2-pentanone (MIBK	43	6.968	6.968	0.000	99	3418492	120.0	122.9	
73 Toluene	91	7.157	7.158	-0.001	96	3236959	60.0	58.7	
74 trans-1,3-Dichloropropene	75	7.335	7.335	0.000	83	1213548	60.0	61.7	
75 Ethyl methacrylate	69	7.394	7.394	0.000	84	1170033	60.0	61.4	
76 1,1,2-Trichloroethane	97	7.501	7.501	0.000	93	760720	60.0	58.9	
77 1,3-Dichloropropane	76	7.654	7.655	-0.001	86	1269944	60.0	58.0	
78 Tetrachloroethene	166	7.654	7.667	-0.013	75	886938	60.0	56.1	
80 2-Hexanone	43	7.714	7.714	0.000	99	2481601	120.0	125.4	
82 Chlorodibromomethane	129	7.867	7.868	-0.001	88	885170	60.0	63.9	
83 Ethylene Dibromide	107	7.986	7.986	0.000	98	877823	60.0	60.0	
85 Chlorobenzene	112	8.435	8.436	-0.001	90	2374706	60.0	55.8	
86 1,1,1,2-Tetrachloroethane	131	8.506	8.507	-0.001	90	892866	60.0	60.8	
87 Ethylbenzene	106	8.530	8.530	0.000	97	1232862	60.0	61.3	
88 m-Xylene & p-Xylene	106	8.637	8.637	0.000	97	1517011	60.0	59.7	
89 o-Xylene	106	9.015	9.016	-0.001	94	1445479	60.0	59.5	
90 Styrene	104	9.027	9.027	0.000	81	2513690	60.0	61.9	
91 Bromoform	173	9.216	9.217	-0.001	97	642260	60.0	69.1	
92 Isopropylbenzene	105	9.370	9.371	0.000	95	3476184	60.0	59.9	
94 1,1,2,2-Tetrachloroethane	83	9.642	9.643	-0.001	97	1086915	60.0	54.8	
95 Bromobenzene	156	9.678	9.678	0.000	84	1040197	60.0	57.7	
96 trans-1,4-Dichloro-2-buten	53	9.690	9.690	0.000	86	734800	60.0	61.7	
97 1,2,3-Trichloropropane	110	9.690	9.690	0.000	90	397926	60.0	53.9	
98 N-Propylbenzene	120	9.761	9.761	0.000	97	1092623	60.0	57.5	
100 2-Chlorotoluene	126	9.855	9.856	-0.001	96	965099	60.0	56.9	
101 1,3,5-Trimethylbenzene	105	9.926	9.927	-0.001	97	2912972	60.0	56.2	
102 4-Chlorotoluene	126	9.962	9.962	0.000	96	1034122	60.0	56.5	
104 tert-Butylbenzene	119	10.258	10.258	0.000	93	2851583	60.0	56.6	
106 1,2,4-Trimethylbenzene	105	10.305	10.305	0.000	93	3091462	60.0	57.1	
107 sec-Butylbenzene	134	10.471	10.471	0.000	95	871807	60.0	59.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.589	10.589	0.000	97	1968577	60.0	56.7	
109 4-Isopropyltoluene	119	10.613	10.613	0.000	97	3182726	60.0	57.8	
110 1,4-Dichlorobenzene	146	10.672	10.672	0.000	94	2061373	60.0	56.5	
113 n-Butylbenzene	91	11.015	11.015	0.000	96	2406335	60.0	57.8	
114 1,2-Dichlorobenzene	146	11.050	11.051	-0.001	97	1949784	60.0	55.8	
115 1,2-Dibromo-3-Chloropropan	157	11.820	11.808	0.012	92	268647	60.0	61.5	
117 1,2,4-Trichlorobenzene	180	12.648	12.648	0.000	94	1160988	60.0	57.6	
118 Hexachlorobutadiene	225	12.825	12.826	-0.001	97	453313	60.0	59.6	
119 Naphthalene	128	12.908	12.909	-0.001	97	3660996	60.0	59.4	
120 1,2,3-Trichlorobenzene	180	13.169	13.169	-0.001	95	1085160	60.0	60.0	
S 158 Total BTEX	1				0		300.0	298.7	
S 128 1,2-Dichloroethene, Total	96				0			123.9	
S 129 1,3-Dichloropropene, Total	75				0			126.2	
S 130 Trihalomethanes, Total	83				0		240.0	256.5	
S 131 Xylenes, Total	106				0		120.0	119.2	

Reagents:

vm100is_stk_00033	Amount Added:	1.00	Units: uL
vmrgas_00207	Amount Added:	48.00	Units: uL
vmarolistdw_00206	Amount Added:	48.00	Units: uL
vmrprimw_00243	Amount Added:	48.00	Units: uL
vm50ss_00289	Amount Added:	48.00	Units: uL

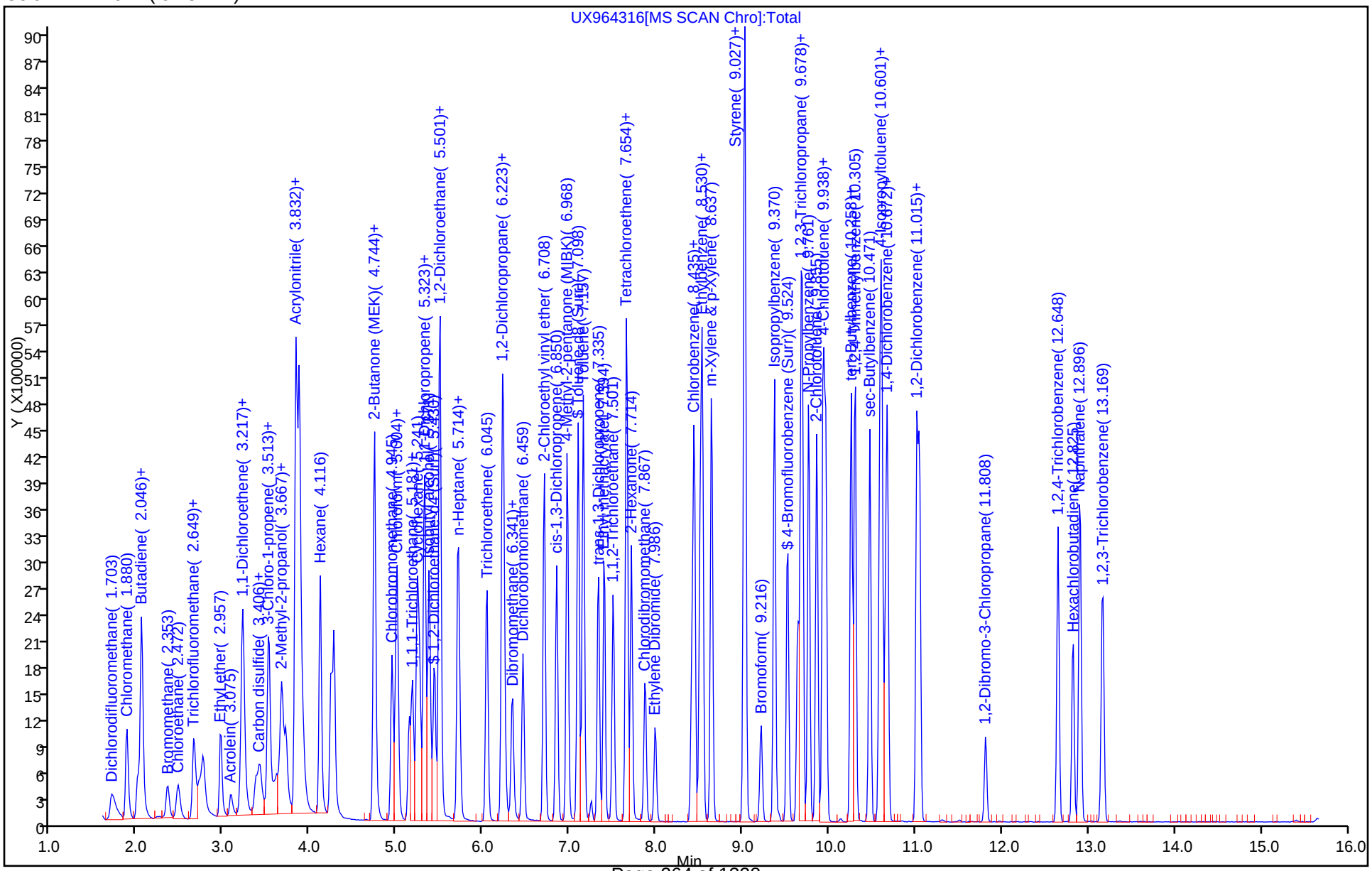
Report Date: 11-Jul-2017 14:47:37 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964316.D

Injection Date:	10-Jul-2017 21:33:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	std8260 L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2557	0.3268	0.1000	0.0256	0.0200	27.8*	20.0
Chloromethane	Ave	0.4989	0.5641	0.1000	0.0226	0.0200	13.1	20.0
Vinyl chloride	Ave	0.3279	0.3647	0.1000	0.0222	0.0200	11.2	20.0
Butadiene	Ave	0.4420	0.4432		0.0201	0.0200	0.3	30.0
Bromomethane	Ave	0.1271	0.1154	0.0500	0.0182	0.0200	-9.2	20.0
Chloroethane	Ave	0.1838	0.1832	0.0500	0.0199	0.0200	-0.3	20.0
Dichlorofluoromethane	Ave	0.3644	0.3865		0.0212	0.0200	6.1	20.0
Trichlorofluoromethane	Ave	0.2535	0.2910	0.1000	0.0230	0.0200	14.8	20.0
Ethyl ether	Ave	0.2381	0.2694		0.0226	0.0200	13.2	20.0
Acrolein	Ave	0.0313	0.0374		0.120	0.100	19.5	50.0
1,1-Dichloroethene	Ave	0.4613	0.5128	0.1000	0.0222	0.0200	11.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1724	0.1720	0.0500	0.0199	0.0200	-0.3	20.0
Acetone	Lin1		0.1422	0.0100	0.0434	0.0400	8.5	50.0
Iodomethane	Ave	0.3006	0.3327		0.0221	0.0200	10.7	20.0
Carbon disulfide	Ave	0.4172	0.4390	0.1000	0.0210	0.0200	5.2	20.0
3-Chloro-1-propene	Lin1		0.4549		0.0232	0.0200	16.2	20.0
Methyl acetate	Ave	0.3378	0.3343	0.1000	0.0396	0.0400	-1.0	20.0
Methylene Chloride	Ave	0.7011	0.7150	0.1000	0.0204	0.0200	2.0	50.0
2-Methyl-2-propanol	Ave	0.0430	0.0493		0.229	0.200	14.7	50.0
Acrylonitrile	Ave	0.1839	0.2056		0.224	0.200	11.8	20.0
Methyl tert-butyl ether	Ave	0.7467	0.8201	0.1000	0.0220	0.0200	9.8	20.0
trans-1,2-Dichloroethene	Ave	0.5217	0.5685	0.1000	0.0218	0.0200	9.0	20.0
Hexane	Ave	0.5100	0.4809		0.0189	0.0200	-5.7	20.0
1,1-Dichloroethane	Ave	0.5541	0.6070	0.2000	0.0219	0.0200	9.5	20.0
Vinyl acetate	Ave	0.9198	1.071		0.0233	0.0200	16.4	50.0
2,2-Dichloropropane	Ave	0.1873	0.2043		0.0218	0.0200	9.1	20.0
2-Butanone (MEK)	Ave	0.2525	0.2600	0.0100	0.0412	0.0400	3.0	20.0
cis-1,2-Dichloroethene	Ave	0.5508	0.6121	0.1000	0.0222	0.0200	11.1	20.0
Chlorobromomethane	Ave	0.4328	0.4703		0.0217	0.0200	8.7	20.0
Tetrahydrofuran	Ave	0.1609	0.1706		0.0424	0.0400	6.0	20.0
Chloroform	Ave	0.4321	0.4557	0.2000	0.0211	0.0200	5.5	20.0
1,1,1-Trichloroethane	Ave	0.3509	0.3995	0.1000	0.0228	0.0200	13.9	20.0
Cyclohexane	Ave	0.4020	0.4086	0.1000	0.0203	0.0200	1.6	20.0
1,1-Dichloropropene	Ave	0.3275	0.3388		0.0207	0.0200	3.5	20.0
Carbon tetrachloride	Ave	0.3068	0.3390	0.1000	0.0221	0.0200	10.5	20.0
Isobutyl alcohol	Ave	0.0174	0.0182		0.523	0.500	4.6	20.0
1,2-Dichloroethane	Ave	0.5249	0.5613	0.1000	0.0214	0.0200	6.9	20.0
Benzene	Ave	0.9639	1.014	0.5000	0.0210	0.0200	5.2	20.0
n-Heptane	Lin1		0.1685		0.0203	0.0200	1.6	20.0
Trichloroethene	Lin1		0.2995	0.1500	0.0212	0.0200	6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3651	0.3605	0.1000	0.0197	0.0200	-1.3	20.0
1,2-Dichloropropane	Ave	0.3456	0.3594	0.1000	0.0208	0.0200	4.0	20.0
1,4-Dioxane	Ave	0.0028	0.0041		0.579	0.400	44.8	50.0
Dibromomethane	Ave	0.1868	0.1980		0.0212	0.0200	6.0	20.0
Dichlorobromomethane	Ave	0.3331	0.3532	0.1500	0.0212	0.0200	6.0	20.0
2-Chloroethyl vinyl ether	Ave	0.2507	0.2732		0.0218	0.0200	8.9	20.0
cis-1,3-Dichloropropene	Ave	0.3752	0.4218	0.1500	0.0225	0.0200	12.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5407	0.5651	0.0500	0.0418	0.0400	4.5	20.0
Toluene	Ave	1.263	1.357	0.4000	0.0215	0.0200	7.5	20.0
trans-1,3-Dichloropropene	Ave	0.4502	0.4758	0.1000	0.0211	0.0200	5.7	20.0
Ethyl methacrylate	Ave	0.4360	0.4717		0.0216	0.0200	8.2	20.0
1,1,2-Trichloroethane	Ave	0.2958	0.3152	0.1000	0.0213	0.0200	6.6	20.0
1,3-Dichloropropane	Ave	0.5012	0.5140		0.0205	0.0200	2.6	20.0
Tetrachloroethene	Ave	0.3621	0.3734	0.1500	0.0206	0.0200	3.1	20.0
2-Hexanone	Ave	0.4528	0.4983	0.0500	0.0440	0.0400	10.0	20.0
Chlorodibromomethane	Ave	0.3173	0.3507		0.0221	0.0200	10.5	20.0
Ethylene Dibromide	Ave	0.3350	0.3376		0.0202	0.0200	0.8	20.0
Chlorobenzene	Ave	0.9744	0.9901	0.3000	0.0203	0.0200	1.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3361	0.3566		0.0212	0.0200	6.1	20.0
Ethylbenzene	Ave	0.4606	0.5031		0.0218	0.0200	9.2	20.0
m-Xylene & p-Xylene	Ave	0.5816	0.6357		0.0219	0.0200	9.3	20.0
o-Xylene	Ave	0.5555	0.6261		0.0225	0.0200	12.7	20.0
Styrene	Ave	0.9290	1.030	0.3000	0.0222	0.0200	10.9	20.0
Bromoform	Ave	0.2126	0.2317	0.1000	0.0218	0.0200	9.0	20.0
Isopropylbenzene	Ave	1.328	1.470	0.1000	0.0221	0.0200	10.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7792	0.8117	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.7088	0.7832		0.0221	0.0200	10.5	20.0
1,2,3-Trichloropropane	Ave	0.2900	0.3076		0.0212	0.0200	6.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4680	0.5134		0.0219	0.0200	9.7	20.0
N-Propylbenzene	Ave	0.7463	0.8373		0.0224	0.0200	12.2	20.0
2-Chlorotoluene	Ave	0.6668	0.7208		0.0216	0.0200	8.1	20.0
1,3,5-Trimethylbenzene	Ave	2.036	2.239		0.0220	0.0200	10.0	20.0
4-Chlorotoluene	Ave	0.7195	0.7755		0.0216	0.0200	7.8	20.0
tert-Butylbenzene	Ave	1.981	2.323		0.0234	0.0200	17.2	20.0
1,2,4-Trimethylbenzene	Ave	2.126	2.299		0.0216	0.0200	8.1	20.0
sec-Butylbenzene	Ave	0.5793	0.6650		0.0230	0.0200	14.8	20.0
1,3-Dichlorobenzene	Ave	1.366	1.465	0.6000	0.0215	0.0200	7.3	20.0
4-Isopropyltoluene	Ave	2.166	2.483		0.0229	0.0200	14.6	20.0
1,4-Dichlorobenzene	Ave	1.434	1.543	0.5000	0.0215	0.0200	7.6	20.0
n-Butylbenzene	Ave	1.637	1.887		0.0231	0.0200	15.3	20.0
1,2-Dichlorobenzene	Ave	1.374	1.485	0.4000	0.0216	0.0200	8.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1716	0.1858	0.0500	0.0217	0.0200	8.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7920	0.8870	0.2000	0.0224	0.0200	12.0	50.0
Hexachlorobutadiene	Ave	0.2988	0.3567		0.0239	0.0200	19.4	20.0
Naphthalene	Ave	2.424	2.812		0.0232	0.0200	16.0	50.0
1,2,3-Trichlorobenzene	Ave	0.7111	0.8511		0.0239	0.0200	19.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2315	0.2453		0.0212	0.0200	6.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3642	0.3783		0.0208	0.0200	3.9	20.0
Toluene-d8 (Surr)	Ave	1.099	1.168		0.0213	0.0200	6.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4794	0.5273		0.0220	0.0200	10.0	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964317.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 10-Jul-2017 21:57:30 ALS Bottle#: 8 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-014
Operator ID: 001904 Instrument ID: A3UX9
Sublist:

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 15:27:22 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: bosworthh Date: 11-Jul-2017 15:27:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.723	5.723	0.000	95	1032035	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.409	8.409	0.000	94	863506	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.657	10.646	0.011	92	480789	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.143	5.146	-0.003	58	253133	20.0	21.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.439	5.430	0.009	95	390375	20.0	20.8	
$ 6 Toluene-d8 (Surr)	98	7.095	7.099	-0.004	95	1008326	20.0	21.3	
$ 7 4-Bromofluorobenzene (Surr	95	9.521	9.524	-0.003	88	455292	20.0	22.0	
9 Dichlorodifluoromethane	85	1.711	1.715	-0.004	95	337285	20.0	25.6	
10 Chloromethane	50	1.877	1.880	-0.003	100	582214	20.0	22.6	
11 Vinyl chloride	62	2.007	1.999	0.008	98	376383	20.0	22.2	
12 Butadiene	54	2.054	2.046	0.008	94	457432	20.0	20.1	
13 Bromomethane	94	2.350	2.354	-0.004	88	119142	20.0	18.2	
15 Chloroethane	64	2.480	2.472	0.008	92	189109	20.0	19.9	
16 Dichlorofluoromethane	67	2.658	2.649	0.009	91	398915	20.0	21.2	
17 Trichlorofluoromethane	101	2.717	2.720	-0.003	86	300291	20.0	23.0	
18 Ethyl ether	59	2.965	2.969	-0.004	92	278059	20.0	22.6	
21 Acrolein	56	3.084	3.087	-0.003	88	193009	100.0	119.5	
23 Acetone	43	3.226	3.217	0.009	62	293504	40.0	43.4	
24 1,1-Dichloroethene	61	3.214	3.217	-0.003	87	529198	20.0	22.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.226	3.229	-0.003	57	177457	20.0	19.9	
25 Iodomethane	142	3.380	3.371	0.009	98	343328	20.0	22.1	
26 Carbon disulfide	76	3.427	3.419	0.008	83	453080	20.0	21.0	
28 3-Chloro-1-propene	41	3.510	3.513	-0.003	80	469510	20.0	23.2	
29 Methyl acetate	43	3.522	3.525	-0.003	97	690095	40.0	39.6	
30 Methylene Chloride	49	3.675	3.667	0.008	55	737858	20.0	20.4	
31 2-Methyl-2-propanol	59	3.711	3.714	-0.003	55	508850	200.0	229.4	
32 Acrylonitrile	53	3.829	3.833	-0.004	99	2122231	200.0	223.7	
34 trans-1,2-Dichloroethene	61	3.877	3.868	0.009	74	586705	20.0	21.8	
33 Methyl tert-butyl ether	73	3.877	3.880	-0.003	84	846370	20.0	22.0	
35 Hexane	57	4.113	4.117	-0.004	83	496320	20.0	18.9	
36 1,1-Dichloroethane	63	4.243	4.247	-0.004	98	626472	20.0	21.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Vinyl acetate	43	4.279	4.271	0.008	97	1105359	20.0	23.3	
42 2,2-Dichloropropane	77	4.740	4.744	-0.004	50	210799	20.0	21.8	
43 cis-1,2-Dichloroethene	61	4.740	4.744	-0.004	92	631722	20.0	22.2	
41 2-Butanone (MEK)	43	4.740	4.744	-0.004	82	536626	40.0	41.2	
47 Chlorobromomethane	49	4.942	4.945	-0.003	71	485310	20.0	21.7	
48 Tetrahydrofuran	42	4.989	4.992	-0.003	92	352140	40.0	42.4	
49 Chloroform	83	5.013	5.004	0.009	86	470344	20.0	21.1	
50 1,1,1-Trichloroethane	97	5.178	5.182	-0.004	86	412271	20.0	22.8	
51 Cyclohexane	84	5.237	5.241	-0.004	73	421665	20.0	20.3	
53 Carbon tetrachloride	117	5.332	5.324	0.008	73	349821	20.0	22.1	
52 1,1-Dichloropropene	75	5.320	5.324	-0.004	72	349699	20.0	20.7	
54 Isobutyl alcohol	41	5.368	5.371	-0.003	69	469829	500.0	523.2	
56 1,2-Dichloroethane	62	5.498	5.501	-0.003	65	579258	20.0	21.4	
55 Benzene	78	5.498	5.501	-0.003	89	1046467	20.0	21.0	
58 n-Heptane	71	5.711	5.702	0.009	91	173877	20.0	20.3	
60 Trichloroethene	130	6.042	6.045	-0.003	88	309128	20.0	21.2	
62 Methylcyclohexane	83	6.220	6.223	-0.003	78	372054	20.0	19.7	
63 1,2-Dichloropropane	63	6.231	6.235	-0.004	75	370914	20.0	20.8	
66 Dibromomethane	174	6.338	6.341	-0.003	88	204378	20.0	21.2	
65 1,4-Dioxane	88	6.338	6.341	-0.003	42	84916	400.0	579.0	
67 Dichlorobromomethane	83	6.456	6.460	-0.004	92	364472	20.0	21.2	
69 2-Chloroethyl vinyl ether	63	6.705	6.708	-0.003	82	281898	20.0	21.8	
71 cis-1,3-Dichloropropene	75	6.847	6.850	-0.003	74	435273	20.0	22.5	
72 4-Methyl-2-pentanone (MIBK	43	6.965	6.968	-0.003	82	1166312	40.0	41.8	
73 Toluene	91	7.154	7.158	-0.004	92	1171793	20.0	21.5	
74 trans-1,3-Dichloropropene	75	7.332	7.335	-0.003	83	410855	20.0	21.1	
75 Ethyl methacrylate	69	7.403	7.394	0.009	79	407345	20.0	21.6	
76 1,1,2-Trichloroethane	97	7.497	7.501	-0.004	91	272214	20.0	21.3	
77 1,3-Dichloropropane	76	7.663	7.655	0.008	85	443873	20.0	20.5	
78 Tetrachloroethene	166	7.663	7.667	-0.004	71	322450	20.0	20.6	
80 2-Hexanone	43	7.710	7.714	-0.004	70	860611	40.0	44.0	
82 Chlorodibromomethane	129	7.876	7.868	0.008	88	302853	20.0	22.1	
83 Ethylene Dibromide	107	7.994	7.986	0.008	97	291547	20.0	20.2	
85 Chlorobenzene	112	8.444	8.436	0.008	90	854990	20.0	20.3	
86 1,1,1,2-Tetrachloroethane	131	8.515	8.507	0.008	67	307909	20.0	21.2	
87 Ethylbenzene	106	8.539	8.530	0.009	97	434462	20.0	21.8	
88 m-Xylene & p-Xylene	106	8.645	8.637	0.008	97	548947	20.0	21.9	
89 o-Xylene	106	9.024	9.016	0.008	80	540619	20.0	22.5	
90 Styrene	104	9.024	9.027	-0.003	80	889552	20.0	22.2	
91 Bromoform	173	9.213	9.217	-0.004	92	200112	20.0	21.8	
92 Isopropylbenzene	105	9.367	9.371	-0.003	96	1269393	20.0	22.1	
94 1,1,2,2-Tetrachloroethane	83	9.639	9.643	-0.004	95	390244	20.0	20.8	
95 Bromobenzene	156	9.675	9.678	-0.003	83	376546	20.0	22.1	
96 trans-1,4-Dichloro-2-buten	53	9.698	9.690	0.008	69	246822	20.0	21.9	
97 1,2,3-Trichloropropane	110	9.687	9.690	-0.003	69	147867	20.0	21.2	
98 N-Propylbenzene	120	9.769	9.761	0.008	93	402556	20.0	22.4	
100 2-Chlorotoluene	126	9.864	9.856	0.008	95	346529	20.0	21.6	
101 1,3,5-Trimethylbenzene	105	9.935	9.927	0.008	95	1076643	20.0	22.0	
102 4-Chlorotoluene	126	9.959	9.962	-0.003	97	372838	20.0	21.6	
104 tert-Butylbenzene	119	10.254	10.258	-0.004	94	1116704	20.0	23.4	
106 1,2,4-Trimethylbenzene	105	10.302	10.305	-0.003	70	1105340	20.0	21.6	
107 sec-Butylbenzene	134	10.467	10.471	-0.004	95	319734	20.0	23.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	10.586	10.589	-0.003	84	704285	20.0	21.5	
109 4-Isopropyltoluene	119	10.609	10.613	-0.004	92	1193587	20.0	22.9	
110 1,4-Dichlorobenzene	146	10.680	10.672	0.008	95	741957	20.0	21.5	
113 n-Butylbenzene	91	11.012	11.015	-0.003	96	907191	20.0	23.1	
114 1,2-Dichlorobenzene	146	11.047	11.051	-0.004	97	714077	20.0	21.6	
115 1,2-Dibromo-3-Chloropropan	157	11.816	11.808	0.008	72	89343	20.0	21.7	
117 1,2,4-Trichlorobenzene	180	12.645	12.648	-0.003	94	426462	20.0	22.4	
118 Hexachlorobutadiene	225	12.822	12.826	-0.004	94	171494	20.0	23.9	
119 Naphthalene	128	12.905	12.909	-0.004	97	1351911	20.0	23.2	
120 1,2,3-Trichlorobenzene	180	13.165	13.169	-0.004	93	409198	20.0	23.9	
S 158 Total BTEX	1				0		100.0	108.8	
S 130 Trihalomethanes, Total	83				0		80.0	86.2	
S 131 Xylenes, Total	106				0		40.0	44.4	

Reagents:

vmfasgw_00217	Amount Added:	16.00	Units: uL	
VMFASAW_00194	Amount Added:	16.00	Units: uL	
vmfaspw_00210	Amount Added:	16.00	Units: uL	
vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00096	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

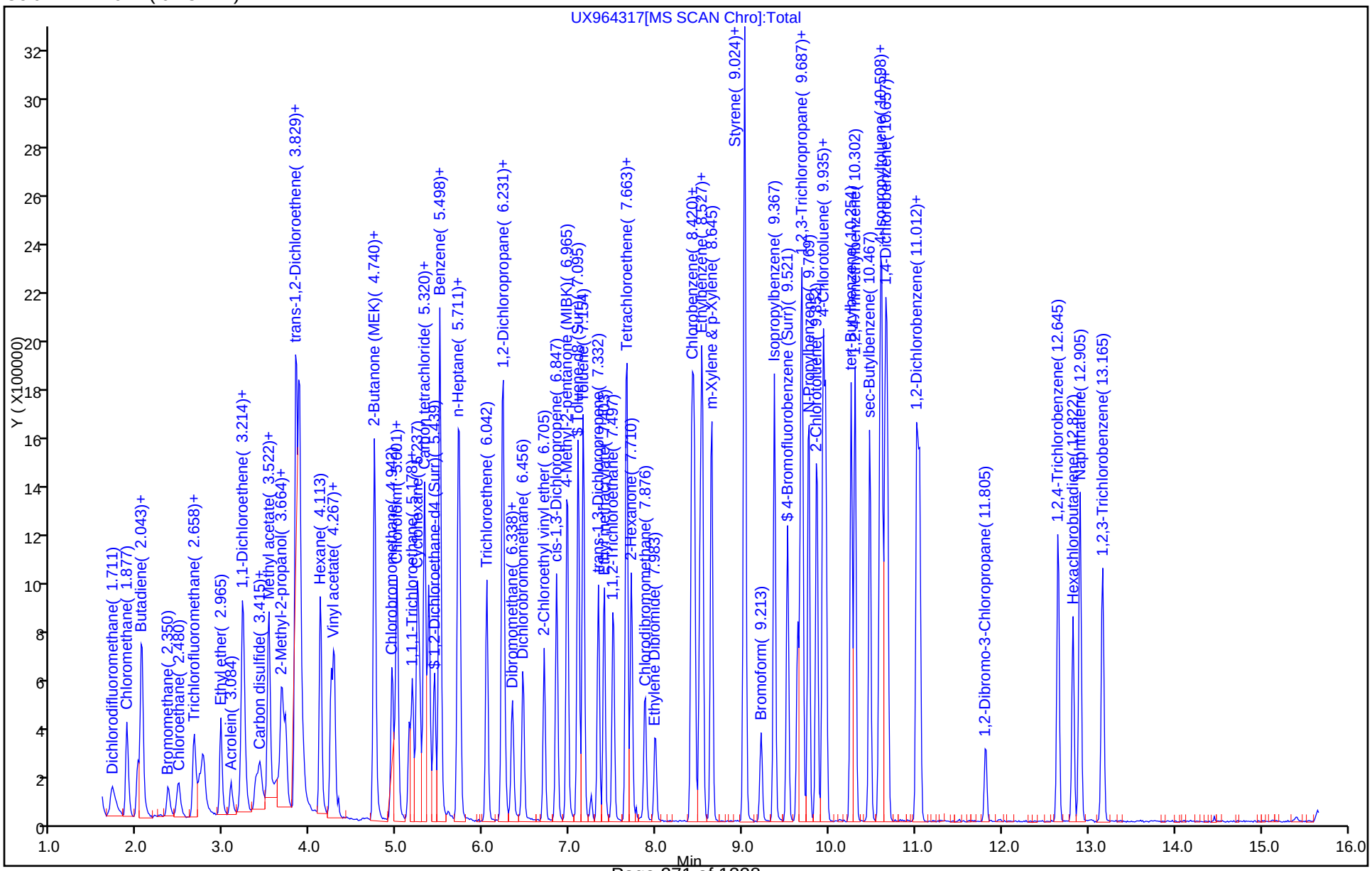
Report Date: 11-Jul-2017 15:27:23 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964317.D

Injection Date:	10-Jul-2017 21:57:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVIS 240-287117/3 Calibration Date: 07/13/2017 19:01

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964388.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2557	0.3138	0.1000	0.0245	0.0200	22.7*	20.0
Chloromethane	Ave	0.4989	0.4900	0.1000	0.0196	0.0200	-1.8	20.0
Vinyl chloride	Ave	0.3279	0.3335	0.1000	0.0203	0.0200	1.7	20.0
Butadiene	Ave	0.4420	0.4669		0.0211	0.0200	5.6	20.0
Bromomethane	Ave	0.1271	0.1171	0.0500	0.0184	0.0200	-7.9	20.0
Chloroethane	Ave	0.1838	0.1741	0.0500	0.0189	0.0200	-5.3	20.0
Dichlorofluoromethane	Ave	0.3644	0.3629		0.0199	0.0200	-0.4	20.0
Trichlorofluoromethane	Ave	0.2535	0.2711	0.1000	0.0214	0.0200	6.9	20.0
Ethyl ether	Ave	0.2381	0.2392		0.0201	0.0200	0.5	20.0
Acrolein	Ave	0.0313	0.0269		0.0861	0.100	-13.9	50.0
1,1-Dichloroethene	Ave	0.4613	0.4630	0.1000	0.0201	0.0200	0.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1724	0.1805	0.0500	0.0209	0.0200	4.7	20.0
Acetone	Lin1		0.1358	0.0100	0.0414	0.0400	3.5	50.0
Iodomethane	Ave	0.3006	0.3159		0.0210	0.0200	5.1	20.0
Carbon disulfide	Ave	0.4172	0.3846	0.1000	0.0184	0.0200	-7.8	20.0
3-Chloro-1-propene	Lin1		0.4214		0.0215	0.0200	7.3	20.0
Methyl acetate	Ave	0.3378	0.3135	0.1000	0.0371	0.0400	-7.2	20.0
Methylene Chloride	Ave	0.7011	0.6760	0.1000	0.0193	0.0200	-3.6	50.0
2-Methyl-2-propanol	Ave	0.0430	0.0402		0.187	0.200	-6.5	50.0
Acrylonitrile	Ave	0.1839	0.1918		0.209	0.200	4.3	20.0
Methyl tert-butyl ether	Ave	0.7467	0.7817	0.1000	0.0209	0.0200	4.7	20.0
trans-1,2-Dichloroethene	Ave	0.5217	0.5279	0.1000	0.0202	0.0200	1.2	20.0
Hexane	Ave	0.5100	0.5298		0.0208	0.0200	3.9	20.0
1,1-Dichloroethane	Ave	0.5541	0.5810	0.2000	0.0210	0.0200	4.9	20.0
Vinyl acetate	Ave	0.9198	0.7976		0.0173	0.0200	-13.3	50.0
2,2-Dichloropropane	Ave	0.1873	0.1878		0.0201	0.0200	0.3	20.0
2-Butanone (MEK)	Ave	0.2525	0.2402	0.0100	0.0381	0.0400	-4.9	20.0
cis-1,2-Dichloroethene	Ave	0.5508	0.5793	0.1000	0.0210	0.0200	5.2	20.0
Chlorobromomethane	Ave	0.4328	0.4050		0.0187	0.0200	-6.4	20.0
Tetrahydrofuran	Ave	0.1609	0.1519		0.0378	0.0400	-5.6	20.0
Chloroform	Ave	0.4321	0.4438	0.2000	0.0205	0.0200	2.7	20.0
1,1,1-Trichloroethane	Ave	0.3509	0.3209	0.1000	0.0183	0.0200	-8.5	20.0
Cyclohexane	Ave	0.4020	0.4378	0.1000	0.0218	0.0200	8.9	20.0
1,1-Dichloropropene	Ave	0.3275	0.3415		0.0209	0.0200	4.3	20.0
Carbon tetrachloride	Ave	0.3068	0.3420	0.1000	0.0223	0.0200	11.5	20.0
Isobutyl alcohol	Ave	0.0174	0.0156		0.449	0.500	-10.2	20.0
1,2-Dichloroethane	Ave	0.5249	0.5456	0.1000	0.0208	0.0200	3.9	20.0
Benzene	Ave	0.9639	0.9917	0.5000	0.0206	0.0200	2.9	20.0
n-Heptane	Lin1		0.1874		0.0227	0.0200	13.6	20.0
Trichloroethene	Lin1		0.3237	0.1500	0.0229	0.0200	14.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVIS 240-287117/3 Calibration Date: 07/13/2017 19:01

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964388.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3651	0.3934	0.1000	0.0216	0.0200	7.8	20.0
1,2-Dichloropropane	Ave	0.3456	0.3285	0.1000	0.0190	0.0200	-5.0	20.0
1,4-Dioxane	Ave	0.0028	0.0035		0.496	0.400	24.0	50.0
Dibromomethane	Ave	0.1868	0.1925		0.0206	0.0200	3.1	20.0
Dichlorobromomethane	Ave	0.3331	0.3270	0.1500	0.0196	0.0200	-1.8	20.0
2-Chloroethyl vinyl ether	Ave	0.2507	0.2546		0.0406	0.0400	1.5	20.0
cis-1,3-Dichloropropene	Ave	0.3752	0.3814	0.1500	0.0203	0.0200	1.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5407	0.5010	0.0500	0.0371	0.0400	-7.4	20.0
Toluene	Ave	1.263	1.243	0.4000	0.0197	0.0200	-1.6	20.0
trans-1,3-Dichloropropene	Ave	0.4502	0.4299	0.1000	0.0191	0.0200	-4.5	20.0
Ethyl methacrylate	Ave	0.4360	0.4178		0.0192	0.0200	-4.2	20.0
1,1,2-Trichloroethane	Ave	0.2958	0.2881	0.1000	0.0195	0.0200	-2.6	20.0
1,3-Dichloropropane	Ave	0.5012	0.4926		0.0197	0.0200	-1.7	20.0
Tetrachloroethene	Ave	0.3621	0.3474	0.1500	0.0192	0.0200	-4.1	20.0
2-Hexanone	Ave	0.4528	0.4129	0.0500	0.0365	0.0400	-8.8	20.0
Chlorodibromomethane	Ave	0.3173	0.3069		0.0193	0.0200	-3.3	20.0
Ethylene Dibromide	Ave	0.3350	0.3196		0.0191	0.0200	-4.6	20.0
Chlorobenzene	Ave	0.9744	0.9033	0.3000	0.0185	0.0200	-7.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3361	0.3381		0.0201	0.0200	0.6	20.0
Ethylbenzene	Ave	0.4606	0.4669		0.0203	0.0200	1.4	20.0
m-Xylene & p-Xylene	Ave	0.5816	0.5727		0.0197	0.0200	-1.5	20.0
o-Xylene	Ave	0.5555	0.5692		0.0205	0.0200	2.5	20.0
Styrene	Ave	0.9290	0.9525	0.3000	0.0205	0.0200	2.5	20.0
Bromoform	Ave	0.2126	0.2136	0.1000	0.0201	0.0200	0.5	20.0
Isopropylbenzene	Ave	1.328	1.351	0.1000	0.0203	0.0200	1.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7792	0.6802	0.3000	0.0175	0.0200	-12.7	20.0
Bromobenzene	Ave	0.7088	0.7093		0.0200	0.0200	0.0	20.0
1,2,3-Trichloropropane	Ave	0.2900	0.2572		0.0177	0.0200	-11.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4680	0.4127		0.0176	0.0200	-11.8	20.0
N-Propylbenzene	Ave	0.7463	0.7212		0.0193	0.0200	-3.4	20.0
2-Chlorotoluene	Ave	0.6668	0.6390		0.0192	0.0200	-4.2	20.0
1,3,5-Trimethylbenzene	Ave	2.036	1.878		0.0185	0.0200	-7.7	20.0
4-Chlorotoluene	Ave	0.7195	0.6753		0.0188	0.0200	-6.1	20.0
tert-Butylbenzene	Ave	1.981	2.045		0.0206	0.0200	3.2	20.0
1,2,4-Trimethylbenzene	Ave	2.126	2.042		0.0192	0.0200	-3.9	20.0
sec-Butylbenzene	Ave	0.5793	0.5657		0.0195	0.0200	-2.4	20.0
1,3-Dichlorobenzene	Ave	1.366	1.301	0.6000	0.0190	0.0200	-4.8	20.0
4-Isopropyltoluene	Ave	2.166	2.140		0.0198	0.0200	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.434	1.385	0.5000	0.0193	0.0200	-3.4	20.0
n-Butylbenzene	Ave	1.637	1.582		0.0193	0.0200	-3.4	20.0
1,2-Dichlorobenzene	Ave	1.374	1.330	0.4000	0.0194	0.0200	-3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVIS 240-287117/3 Calibration Date: 07/13/2017 19:01

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964388.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1716	0.1483	0.0500	0.0173	0.0200	-13.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7920	0.7757	0.2000	0.0196	0.0200	-2.1	50.0
Hexachlorobutadiene	Ave	0.2988	0.3211		0.0215	0.0200	7.5	20.0
Naphthalene	Ave	2.424	2.381		0.0196	0.0200	-1.8	50.0
1,2,3-Trichlorobenzene	Ave	0.7111	0.7285		0.0205	0.0200	2.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2315	0.2396		0.0207	0.0200	3.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3642	0.3796		0.0208	0.0200	4.2	20.0
Toluene-d8 (Surr)	Ave	1.099	1.149		0.0209	0.0200	4.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4794	0.5150		0.0215	0.0200	7.4	20.0

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964388.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-Jul-2017 19:01:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-003
Operator ID: 001904 Instrument ID: A3UX9
Sublist: chrom-8260_9*sub46

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 21:51:40 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 21:51:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.723	5.723	0.000	97	957257	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.409	8.409	0.000	94	821438	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.646	0.000	93	483444	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.143	5.143	0.000	93	229389	20.0	20.7	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.439	5.439	0.000	95	363341	20.0	20.8	
$ 6 Toluene-d8 (Surr)	98	7.096	7.096	0.000	95	943560	20.0	20.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.521	9.521	0.000	90	423034	20.0	21.5	
9 Dichlorodifluoromethane	85	1.700	1.700	0.000	97	300412	20.0	24.5	
10 Chloromethane	50	1.877	1.877	0.000	100	469042	20.0	19.6	
11 Vinyl chloride	62	2.008	2.008	0.000	100	319214	20.0	20.3	
12 Butadiene	54	2.055	2.055	0.000	94	446951	20.0	21.1	
13 Bromomethane	94	2.363	2.363	0.000	91	112088	20.0	18.4	
15 Chloroethane	64	2.481	2.481	0.000	95	166678	20.0	18.9	
16 Dichlorofluoromethane	67	2.658	2.658	0.000	96	347399	20.0	19.9	
17 Trichlorofluoromethane	101	2.718	2.718	0.000	98	259505	20.0	21.4	
18 Ethyl ether	59	2.966	2.966	0.000	91	228960	20.0	20.1	
21 Acrolein	56	3.084	3.084	0.000	99	128927	100.0	86.1	
24 1,1-Dichloroethene	61	3.215	3.215	0.000	89	443242	20.0	20.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.226	3.226	0.000	93	172824	20.0	20.9	
23 Acetone	43	3.226	3.226	0.000	65	260046	40.0	41.4	
25 Iodomethane	142	3.380	3.380	0.000	99	302404	20.0	21.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
26 Carbon disulfide	76	3.428	3.428	0.000	92	368197	20.0	18.4	
28 3-Chloro-1-propene	41	3.510	3.510	0.000	82	403388	20.0	21.5	
29 Methyl acetate	43	3.522	3.522	0.000	99	600227	40.0	37.1	
30 Methylene Chloride	49	3.676	3.676	0.000	89	647100	20.0	19.3	
31 2-Methyl-2-propanol	59	3.712	3.712	0.000	100	384709	200.0	187.0	
32 Acrylonitrile	53	3.830	3.830	0.000	99	1835795	200.0	208.6	
33 Methyl tert-butyl ether	73	3.877	3.877	0.000	91	748294	20.0	20.9	
34 trans-1,2-Dichloroethene	61	3.877	3.877	0.000	72	505353	20.0	20.2	
35 Hexane	57	4.114	4.114	0.000	94	507113	20.0	20.8	
36 1,1-Dichloroethane	63	4.244	4.244	0.000	97	556171	20.0	21.0	
37 Vinyl acetate	43	4.280	4.280	0.000	97	763508	20.0	17.3	
43 cis-1,2-Dichloroethene	61	4.741	4.741	0.000	91	554524	20.0	21.0	
41 2-Butanone (MEK)	43	4.741	4.741	0.000	81	459940	40.0	38.1	
42 2,2-Dichloropropane	77	4.741	4.741	0.000	77	179750	20.0	20.1	
47 Chlorobromomethane	49	4.942	4.942	0.000	86	387690	20.0	18.7	
48 Tetrahydrofuran	42	4.989	4.989	0.000	92	290783	40.0	37.8	
49 Chloroform	83	5.001	5.001	0.000	95	424865	20.0	20.5	
50 1,1,1-Trichloroethane	97	5.179	5.179	0.000	93	307179	20.0	18.3	
51 Cyclohexane	84	5.238	5.238	0.000	90	419044	20.0	21.8	
52 1,1-Dichloropropene	75	5.321	5.321	0.000	82	326925	20.0	20.9	
53 Carbon tetrachloride	117	5.333	5.333	0.000	93	327421	20.0	22.3	
54 Isobutyl alcohol	41	5.368	5.368	0.000	96	374180	500.0	449.2	
55 Benzene	78	5.498	5.498	0.000	90	949303	20.0	20.6	
56 1,2-Dichloroethane	62	5.498	5.498	0.000	68	522231	20.0	20.8	
58 n-Heptane	71	5.711	5.711	0.000	95	179401	20.0	22.7	
60 Trichloroethene	130	6.043	6.043	0.000	90	309849	20.0	22.9	
62 Methylcyclohexane	83	6.220	6.220	0.000	93	376620	20.0	21.6	
63 1,2-Dichloropropane	63	6.232	6.232	0.000	85	314445	20.0	19.0	
65 1,4-Dioxane	88	6.338	6.338	0.000	40	67453	400.0	495.9	
66 Dibromomethane	174	6.338	6.338	0.000	92	184254	20.0	20.6	
67 Dichlorobromomethane	83	6.457	6.457	0.000	92	313060	20.0	19.6	
69 2-Chloroethyl vinyl ether	63	6.705	6.705	0.000	88	487384	40.0	40.6	
71 cis-1,3-Dichloropropene	75	6.847	6.847	0.000	80	365126	20.0	20.3	
72 4-Methyl-2-pentanone (MIBK	43	6.966	6.966	0.000	98	959133	40.0	37.1	
73 Toluene	91	7.155	7.155	0.000	96	1020975	20.0	19.7	
74 trans-1,3-Dichloropropene	75	7.332	7.332	0.000	90	353114	20.0	19.1	
75 Ethyl methacrylate	69	7.403	7.403	0.000	90	343212	20.0	19.2	
76 1,1,2-Trichloroethane	97	7.498	7.498	0.000	93	236652	20.0	19.5	
78 Tetrachloroethene	166	7.664	7.664	0.000	73	285339	20.0	19.2	
77 1,3-Dichloropropane	76	7.664	7.664	0.000	87	404642	20.0	19.7	
80 2-Hexanone	43	7.711	7.711	0.000	98	678352	40.0	36.5	
82 Chlorodibromomethane	129	7.877	7.877	0.000	87	252076	20.0	19.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
83 Ethylene Dibromide	107	7.983	7.983	0.000	98	262548	20.0	19.1	
85 Chlorobenzene	112	8.445	8.445	0.000	91	741971	20.0	18.5	
86 1,1,1,2-Tetrachloroethane	131	8.516	8.516	0.000	91	277709	20.0	20.1	
87 Ethylbenzene	106	8.539	8.539	0.000	97	383543	20.0	20.3	
88 m-Xylene & p-Xylene	106	8.646	8.646	0.000	98	470466	20.0	19.7	
90 Styrene	104	9.024	9.024	0.000	95	782424	20.0	20.5	
89 o-Xylene	106	9.024	9.024	0.000	95	467527	20.0	20.5	
91 Bromoform	173	9.214	9.214	0.000	97	175457	20.0	20.1	
92 Isopropylbenzene	105	9.368	9.368	0.000	96	1109555	20.0	20.3	
94 1,1,2,2-Tetrachloroethane	83	9.640	9.640	0.000	97	328837	20.0	17.5	
95 Bromobenzene	156	9.675	9.675	0.000	86	342912	20.0	20.0	
97 1,2,3-Trichloropropane	110	9.687	9.687	0.000	92	124347	20.0	17.7	
96 trans-1,4-Dichloro-2-buten	53	9.687	9.687	0.000	77	199516	20.0	17.6	
98 N-Propylbenzene	120	9.770	9.770	0.000	98	348666	20.0	19.3	
100 2-Chlorotoluene	126	9.865	9.865	0.000	96	308904	20.0	19.2	
101 1,3,5-Trimethylbenzene	105	9.936	9.936	0.000	97	908071	20.0	18.5	
102 4-Chlorotoluene	126	9.959	9.959	0.000	96	326484	20.0	18.8	
104 tert-Butylbenzene	119	10.255	10.255	0.000	93	988827	20.0	20.6	
106 1,2,4-Trimethylbenzene	105	10.302	10.302	0.000	94	987431	20.0	19.2	
107 sec-Butylbenzene	134	10.468	10.468	0.000	95	273479	20.0	19.5	
108 1,3-Dichlorobenzene	146	10.586	10.586	0.000	97	628780	20.0	19.0	
109 4-Isopropyltoluene	119	10.610	10.610	0.000	97	1034608	20.0	19.8	
110 1,4-Dichlorobenzene	146	10.669	10.669	0.000	94	669615	20.0	19.3	
113 n-Butylbenzene	91	11.012	11.012	0.000	97	764866	20.0	19.3	
114 1,2-Dichlorobenzene	146	11.048	11.048	0.000	97	642768	20.0	19.4	
115 1,2-Dibromo-3-Chloropropan	157	11.817	11.817	0.000	76	71685	20.0	17.3	
117 1,2,4-Trichlorobenzene	180	12.645	12.645	0.000	94	374994	20.0	19.6	
118 Hexachlorobutadiene	225	12.823	12.823	0.000	97	155215	20.0	21.5	
119 Naphthalene	128	12.906	12.906	0.000	97	1150935	20.0	19.6	
120 1,2,3-Trichlorobenzene	180	13.166	13.166	0.000	96	352200	20.0	20.5	
S 158 Total BTEX	1				0		100.0	100.7	
S 130 Trihalomethanes, Total	83				0		80.0	79.6	
S 131 Xylenes, Total	106				0		40.0	40.2	

Reagents:

vmrprimw_00243	Amount Added:	16.00	Units: uL	
vmrgas_00207	Amount Added:	16.00	Units: uL	
vmarolistdw_00206	Amount Added:	16.00	Units: uL	
vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

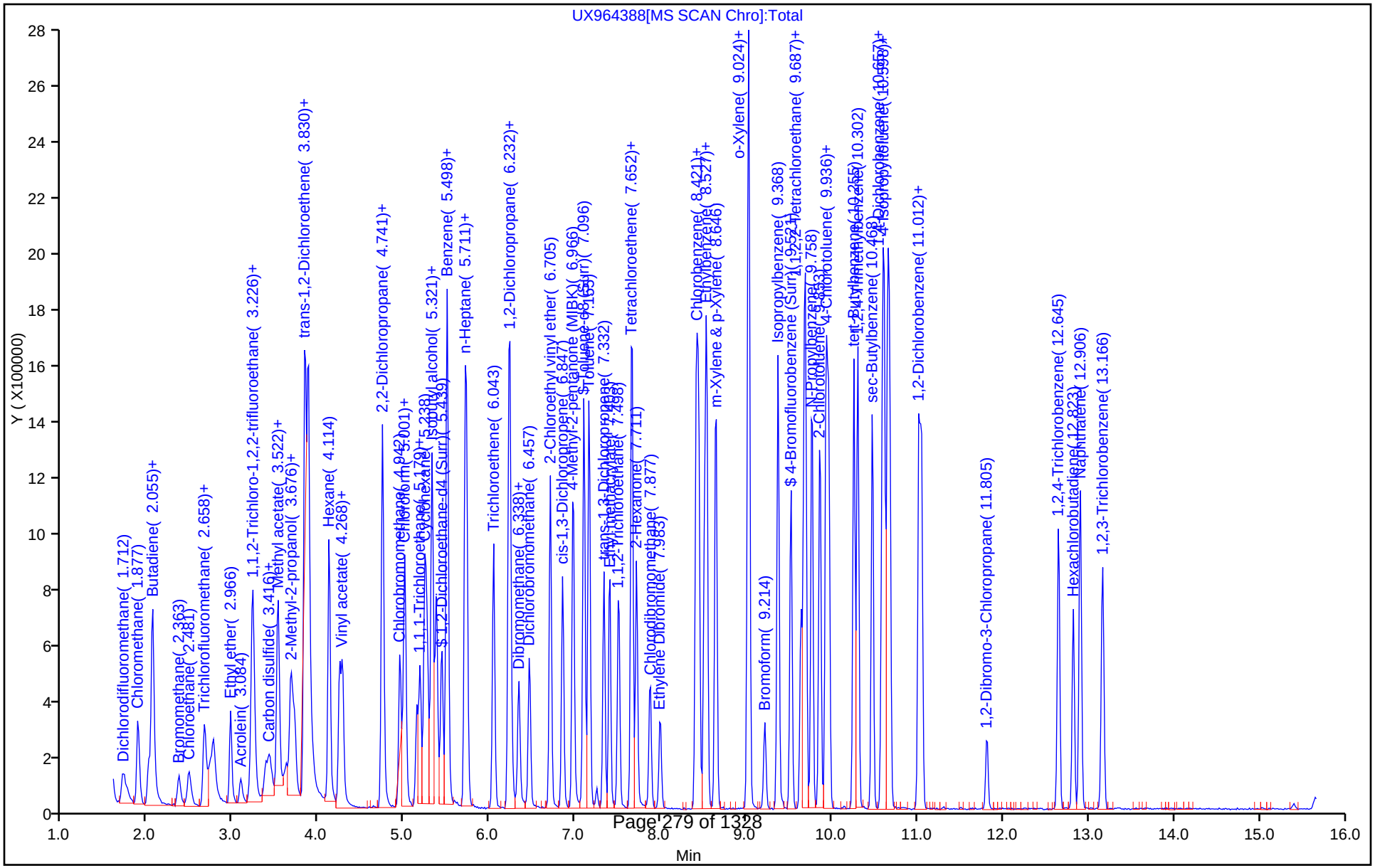
Report Date: 13-Jul-2017 21:51:41 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964388.D

Injection Date:	13-Jul-2017 19:01:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\BFB3716.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 10-Jul-2017 19:06:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0066789-002
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jul-2017 14:50:04 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: bosworthh Date: 11-Jul-2017 14:50:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.769	3.769	0.000	0	2210013	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

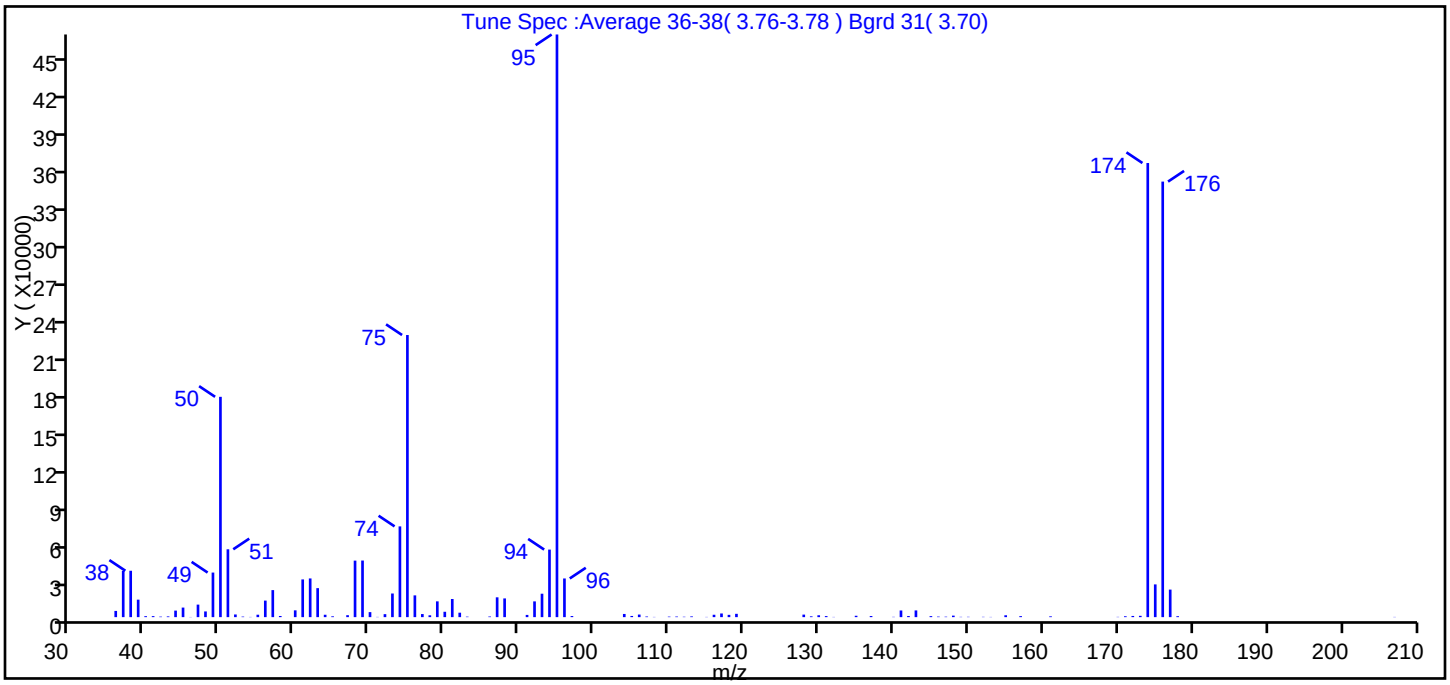
vmbfb_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\BFB3716.D
Injection Date: 10-Jul-2017 19:06:30 Instrument ID: A3UX9
Lims ID: BFB
Client ID:
Operator ID: 001904 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_9 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	37.8
75	30 to 60% of m/z 95	48.4
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	77.9
175	5 to 9% of m/z 174	5.6 (7.2)
176	Greater than 95% but less than 101% of m/z 174	74.8 (95.9)
177	5 to 9% of m/z 176	4.7 (6.3)

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\BFB3716.D\8260_9.rslt\spectra.d
Injection Date: 10-Jul-2017 19:06:30
Spectrum: Tune Spec :Average 36-38(3.76-3.78) Bgrd 31(3.70)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4990	63.00	23280	94.00	54224	141.00	5346
37.00	37160	64.00	1921	95.00	467648	142.00	887
38.00	37224	65.00	663	96.00	31048	143.00	5393
39.00	14039	67.00	1571	97.00	879	145.00	815
40.00	778	68.00	45360	104.00	2553	146.00	436
41.00	819	69.00	45432	105.00	954	147.00	368
42.00	419	70.00	4031	106.00	2076	148.00	1214
43.00	596	71.00	185	107.00	509	149.00	229
44.00	5245	72.00	2400	108.00	170	150.00	266
45.00	7675	73.00	18976	110.00	427	152.00	246
46.00	138	74.00	72840	111.00	488	153.00	167
47.00	10057	75.00	226432	112.00	320	155.00	1499
48.00	4579	76.00	17472	113.00	589	157.00	808
49.00	35784	77.00	2480	115.00	177	161.00	635
50.00	176832	78.00	1485	116.00	1918	170.00	214
51.00	54456	79.00	12674	117.00	2946	171.00	707
52.00	2154	80.00	4313	118.00	1835	172.00	954
53.00	438	81.00	14556	119.00	2666	173.00	1058
54.00	168	82.00	3575	128.00	2038	174.00	364480
55.00	1948	83.00	398	129.00	643	175.00	26280
56.00	13276	86.00	509	130.00	1501	176.00	349568
57.00	21696	87.00	15911	131.00	859	177.00	22112
58.00	927	88.00	15028	132.00	167	178.00	743
60.00	5457	91.00	1788	135.00	1110	207.00	174
61.00	30272	92.00	12646	137.00	892		
62.00	31056	93.00	18808	140.00	238		

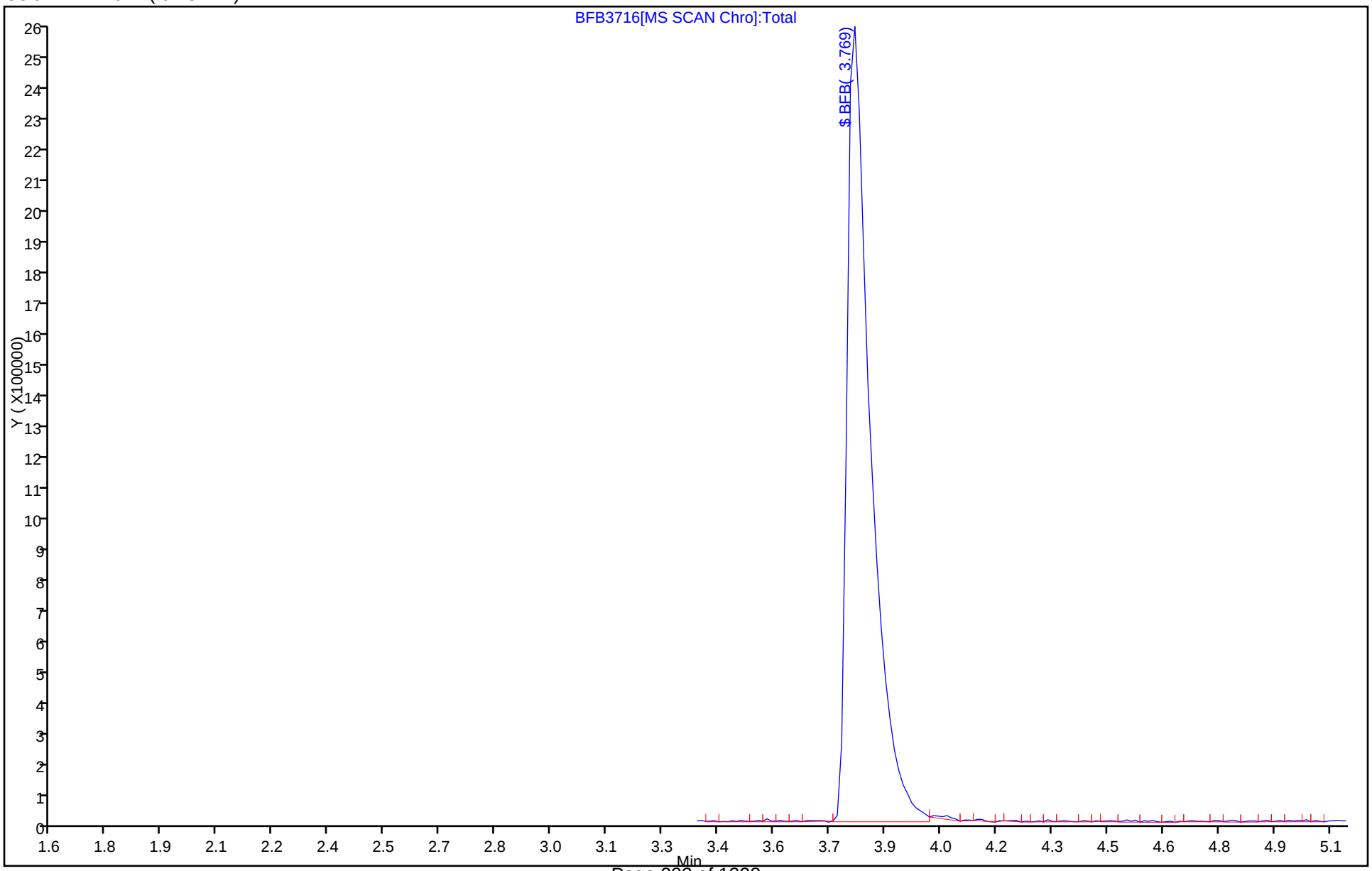
Report Date: 11-Jul-2017 14:50:05 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\BFB3716.D

Injection Date:	10-Jul-2017 19:06:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Target Compound Quantitation Report

Data File:	\\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\BFB3721.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	13-Jul-2017 18:35:30	ALS Bottle#:	3	Worklist Smp#:	33
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	240-0066907-001				
Operator ID:	001904	Instrument ID:	A3UX9		
Method:	\\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m				
Limit Group:	MSV 8260C ICAL				
Last Update:	13-Jul-2017 21:49:50	Calib Date:	11-Jul-2017 00:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK020				
First Level Reviewer: laveyt		Date:	13-Jul-2017 21:49:50		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.758	3.758	0.000	0	2196672	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

vmbfb_00018 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\BFB3721.D

Injection Date: 13-Jul-2017 18:35:30 Instrument ID: A3UX9

Lims ID: BFB

Client ID:

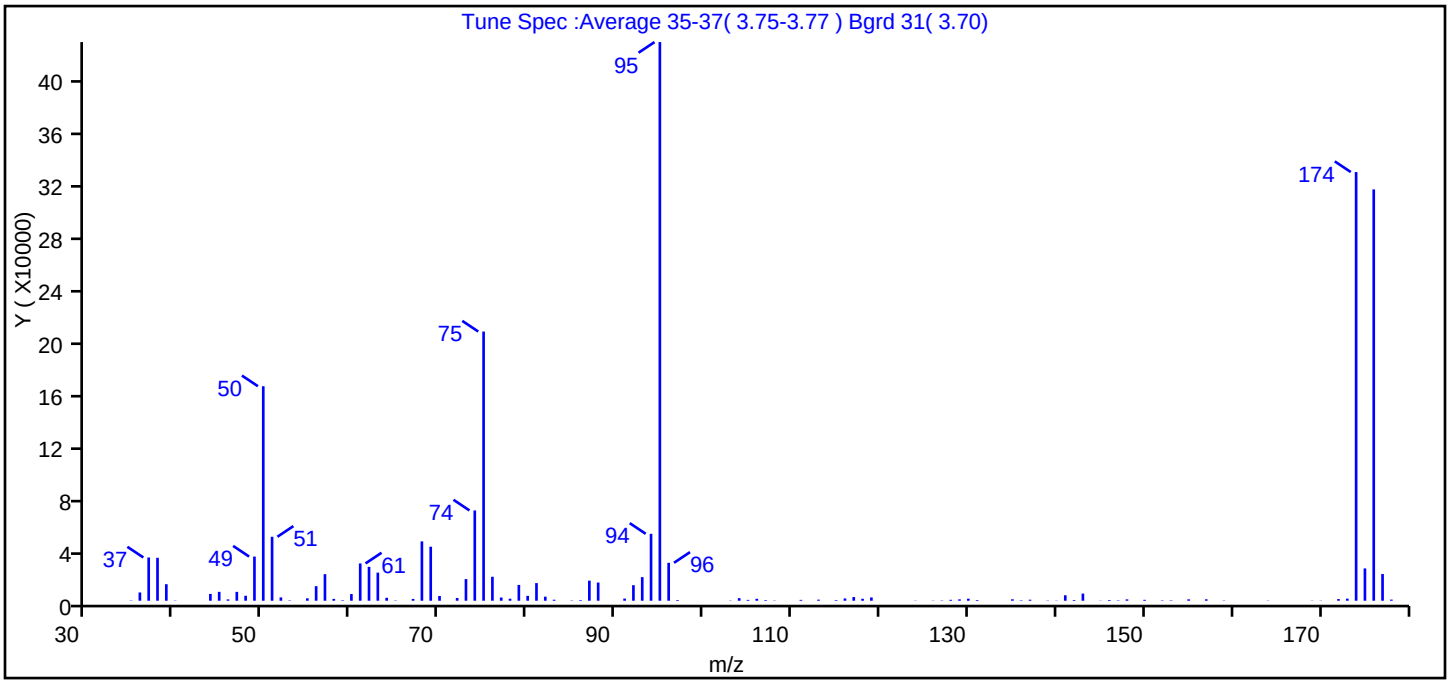
Operator ID: 001904 ALS Bottle#: 3 Worklist Smp#: 33

Injection Vol: 5.0 mL Dil. Factor: 1.0000

Method: 8260_9 Limit Group: MSV 8260C ICAL

Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	38.4
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	76.7
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	73.6 (96.0)
177	5 to 9% of m/z 176	4.8 (6.5)

Report Date: 13-Jul-2017 21:49:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\BFB3721.D\8260_9.rslt\spectra.d

Injection Date: 13-Jul-2017 18:35:30

Spectrum: Tune Spec :Average 35-37(3.75-3.77) Bgrd 31(3.70)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	247	65.00	263	96.00	28952	140.00	174
36.00	6317	67.00	1379	97.00	568	141.00	4165
37.00	33008	68.00	45296	103.00	196	142.00	564
38.00	32768	69.00	41224	104.00	1980	143.00	5455
39.00	12622	70.00	3627	105.00	659	145.00	160
40.00	209	72.00	2109	106.00	1484	146.00	574
44.00	5198	73.00	16536	107.00	506	147.00	309
45.00	6787	74.00	68912	108.00	208	148.00	1039
46.00	1035	75.00	205440	111.00	664	150.00	700
47.00	6774	76.00	18296	113.00	834	152.00	313
48.00	3811	77.00	2451	115.00	495	153.00	334
49.00	33696	78.00	1540	116.00	1752	155.00	1075
50.00	163712	79.00	12064	117.00	2804	157.00	1092
51.00	48824	80.00	3722	118.00	1495	159.00	227
52.00	2533	81.00	13473	119.00	2496	164.00	180
53.00	292	82.00	3099	124.00	167	169.00	171
55.00	1850	83.00	783	126.00	176	170.00	178
56.00	11132	85.00	247	127.00	252	172.00	1265
57.00	20288	86.00	482	128.00	709	173.00	1586
58.00	1404	87.00	15327	129.00	1051	174.00	327168
59.00	399	88.00	13889	130.00	1548	175.00	24664
60.00	5104	91.00	1657	131.00	565	176.00	313920
61.00	28472	92.00	11883	135.00	1102	177.00	20392
62.00	25856	93.00	18024	136.00	337	178.00	863
63.00	21456	94.00	51072	137.00	788		
64.00	2243	95.00	426368	139.00	219		

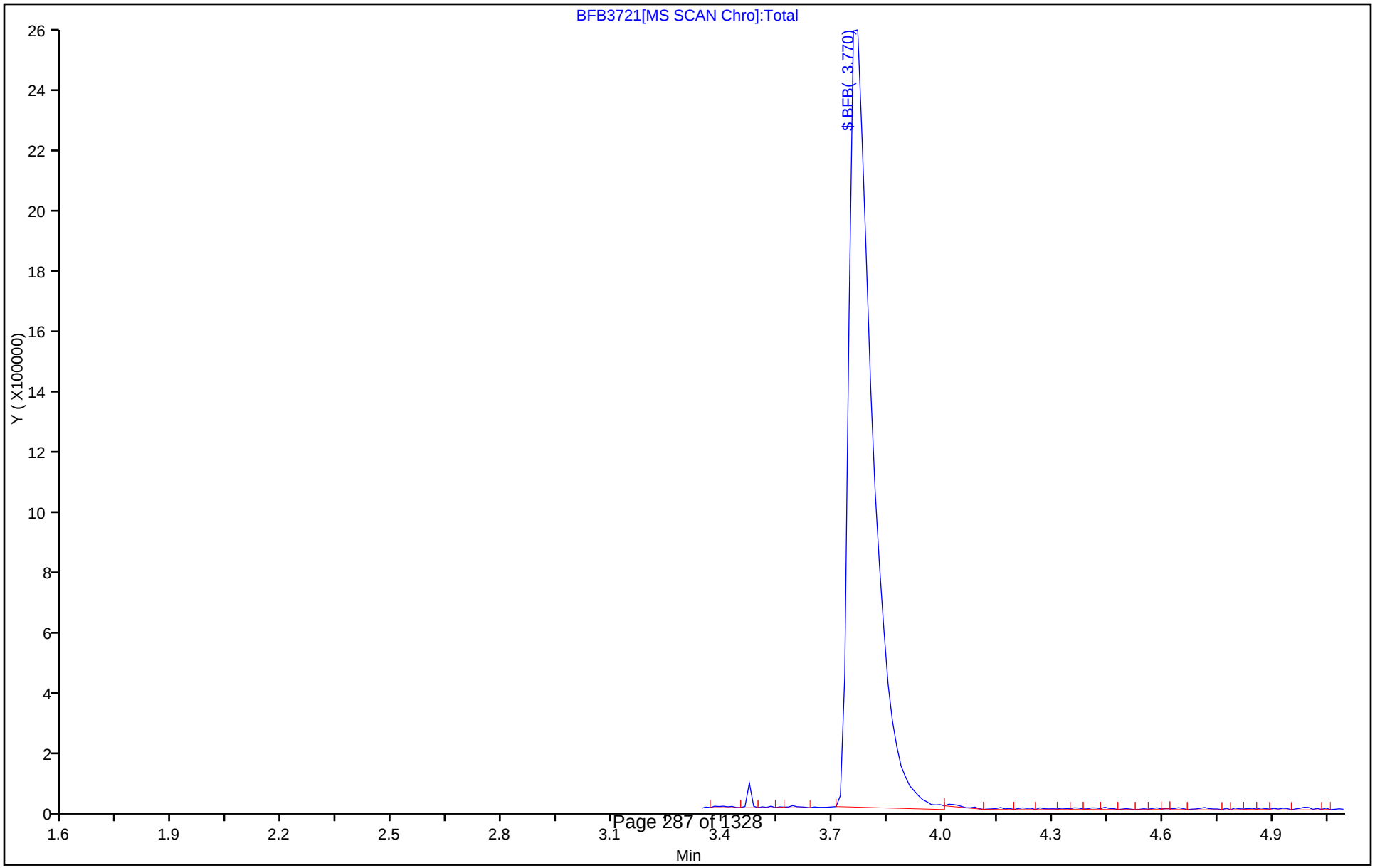
Report Date: 13-Jul-2017 21:49:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\BFB3721.D

Injection Date:	13-Jul-2017 18:35:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	BFB			Worklist Smp#:	33
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287117/7

Matrix: Water | Lab File ID: UX964392.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 20:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287117/7

Matrix: Water | Lab File ID: UX964392.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 20:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.538	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964392.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Jul-2017 20:36:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-007
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 21:55:57 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 21:55:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	98	942585	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	92	811243	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.645	0.001	96	432259	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	93	203924	20.0	18.7	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	96	312815	20.0	18.2	
$ 6 Toluene-d8 (Surr)	98	7.096	7.096	0.000	95	902587	20.0	20.3	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.521	0.001	89	394012	20.0	20.3	
9 Dichlorodifluoromethane	85		1.700					ND	
10 Chloromethane	50		1.877					ND	
11 Vinyl chloride	62		2.008					ND	
12 Butadiene	54		2.055					ND	
14 Ethylene oxide	43		2.306					ND	
13 Bromomethane	94		2.363					ND	
15 Chloroethane	64		2.481					ND	
16 Dichlorofluoromethane	67		2.658					ND	
17 Trichlorofluoromethane	101		2.718					ND	
18 Ethyl ether	59		2.966					ND	
19 Propene oxide	58		3.028					ND	
21 Acrolein	56		3.084					ND	
24 1,1-Dichloroethene	61		3.215					ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.226					ND	
25 Iodomethane	142		3.380					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
26 Carbon disulfide	76		3.428					ND	
27 Acetonitrile	41		3.475					ND	
29 Methyl acetate	43		3.522					ND	
20 Methylal	45		3.532					ND	
30 Methylene Chloride	49	3.677	3.676	0.001	86	17764		0.5376	
31 2-Methyl-2-propanol	59		3.712					ND	
32 Acrylonitrile	53		3.830					ND	
34 trans-1,2-Dichloroethene	61		3.877					ND	
33 Methyl tert-butyl ether	73		3.877					ND	
35 Hexane	57	4.115	4.114	0.001	47	3227		0.1342	
36 1,1-Dichloroethane	63		4.244					ND	
38 Isopropyl ether	87		4.303					ND	
39 2-Chloro-1,3-butadiene	53		4.326					ND	
40 Tert-butyl ethyl ether	59		4.610					ND	
43 cis-1,2-Dichloroethene	61		4.741					ND	
41 2-Butanone (MEK)	43		4.741					ND	
42 2,2-Dichloropropane	77		4.741					ND	
44 Ethyl acetate	43		4.788					ND	
45 Propionitrile	54		4.788					ND	
46 Methacrylonitrile	41		4.930					ND	
47 Chlorobromomethane	49		4.942					ND	
48 Tetrahydrofuran	42		4.989					ND	
50 1,1,1-Trichloroethane	97		5.179					ND	
51 Cyclohexane	84		5.238					ND	
52 1,1-Dichloropropene	75		5.321					ND	
53 Carbon tetrachloride	117		5.333					ND	
54 Isobutyl alcohol	41		5.368					ND	
55 Benzene	78		5.498					ND	
57 Tert-amyl methyl ether	73		5.581					ND	
58 n-Heptane	71		5.711					ND	
59 n-Butanol	56		5.936					ND	
60 Trichloroethene	130	6.043	6.043	0.000	84	4259		0.1702	
61 Ethyl acrylate	55		6.101					ND	
62 Methylcyclohexane	83		6.220					ND	
63 1,2-Dichloropropane	63		6.232					ND	
64 Methyl methacrylate	41		6.303					ND	
66 Dibromomethane	174		6.338					ND	
65 1,4-Dioxane	88		6.338					ND	
67 Dichlorobromomethane	83		6.457					ND	
68 2-Nitropropane	41		6.646					ND	
69 2-Chloroethyl vinyl ether	63		6.705					ND	
70 Epichlorohydrin	57		6.766					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 cis-1,3-Dichloropropene	75		6.847					ND	
72 4-Methyl-2-pentanone (MIBK	43		6.966					ND	
73 Toluene	91		7.155					ND	
74 trans-1,3-Dichloropropene	75		7.332					ND	
75 Ethyl methacrylate	69		7.403					ND	
76 1,1,2-Trichloroethane	97		7.498					ND	
78 Tetrachloroethene	166		7.664					ND	
77 1,3-Dichloropropane	76		7.664					ND	
80 2-Hexanone	43		7.711					ND	
82 Chlorodibromomethane	129		7.877					ND	
79 Tetrahydrothiophene	60		7.955					ND	
83 Ethylene Dibromide	107		7.983					ND	
84 1-Chlorohexane	91		8.397					ND	
85 Chlorobenzene	112		8.445					ND	
86 1,1,1,2-Tetrachloroethane	131		8.516					ND	
87 Ethylbenzene	106		8.539					ND	
88 m-Xylene & p-Xylene	106		8.646					ND	
89 o-Xylene	106		9.024					ND	
90 Styrene	104		9.024					ND	
91 Bromoform	173		9.214					ND	
92 Isopropylbenzene	105		9.368					ND	
94 1,1,2,2-Tetrachloroethane	83		9.640					ND	
95 Bromobenzene	156		9.675					ND	
97 1,2,3-Trichloropropane	110		9.687					ND	
98 N-Propylbenzene	120		9.770					ND	
100 2-Chlorotoluene	126		9.865					ND	
101 1,3,5-Trimethylbenzene	105		9.936					ND	
102 4-Chlorotoluene	126		9.959					ND	
99 3-Ethyltoluene	105		10.089					ND	
104 tert-Butylbenzene	119		10.255					ND	
105 Pentachloroethane	167		10.278					ND	
106 1,2,4-Trimethylbenzene	105		10.302					ND	
103 2-Ethyltoluene	105		10.373					ND	
107 sec-Butylbenzene	134		10.468					ND	
108 1,3-Dichlorobenzene	146		10.586					ND	
109 4-Isopropyltoluene	119		10.610					ND	
110 1,4-Dichlorobenzene	146		10.669					ND	
111 1,2,3-Trimethylbenzene	105		10.716					ND	
112 Benzyl chloride	126		10.799					ND	
113 n-Butylbenzene	91	11.013	11.012	0.001	79	3261		0.0922	
114 1,2-Dichlorobenzene	146		11.048					ND	
115 1,2-Dibromo-3-Chloropropan	157		11.817					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
116 1,3,5-Trichlorobenzene	180	12.031	12.030	0.001	86	3495		0.1911	
117 1,2,4-Trichlorobenzene	180		12.645					ND	
118 Hexachlorobutadiene	225	12.823	12.823	0.000	75	3380		0.5234	
119 Naphthalene	128		12.906					ND	
120 1,2,3-Trichlorobenzene	180		13.166					ND	
121 2-Methylnaphthalene	142	14.267	14.266	0.001	92	16089		0.5879	
123 1,4-Dichlorobutane	1		0.700					ND	
126 Isobutylene TIC	1		0.700					ND	
122 Butyl Methacrylate TIC	1		0.700					ND	
S 158 Total BTEX	1		0.400					ND	
S 128 1,2-Dichloroethene, Total	96		1.840					ND	
S 129 1,3-Dichloropropene, Total	75		7.460					ND	
S 130 Trihalomethanes, Total	83		16.700					ND	
S 131 Xylenes, Total	106		17.230					ND	
T 159 1-Chloro-1-fluoroethane TI	47		1.980					ND	
T 157 Chlorodifluoromethane TIC	51		2.370					ND	
T 124 1,3-Diethylbenzene TIC	119		11.200					ND	
T 132 Hexachloroethane TIC	166		11.600					ND	

Reagents:

vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

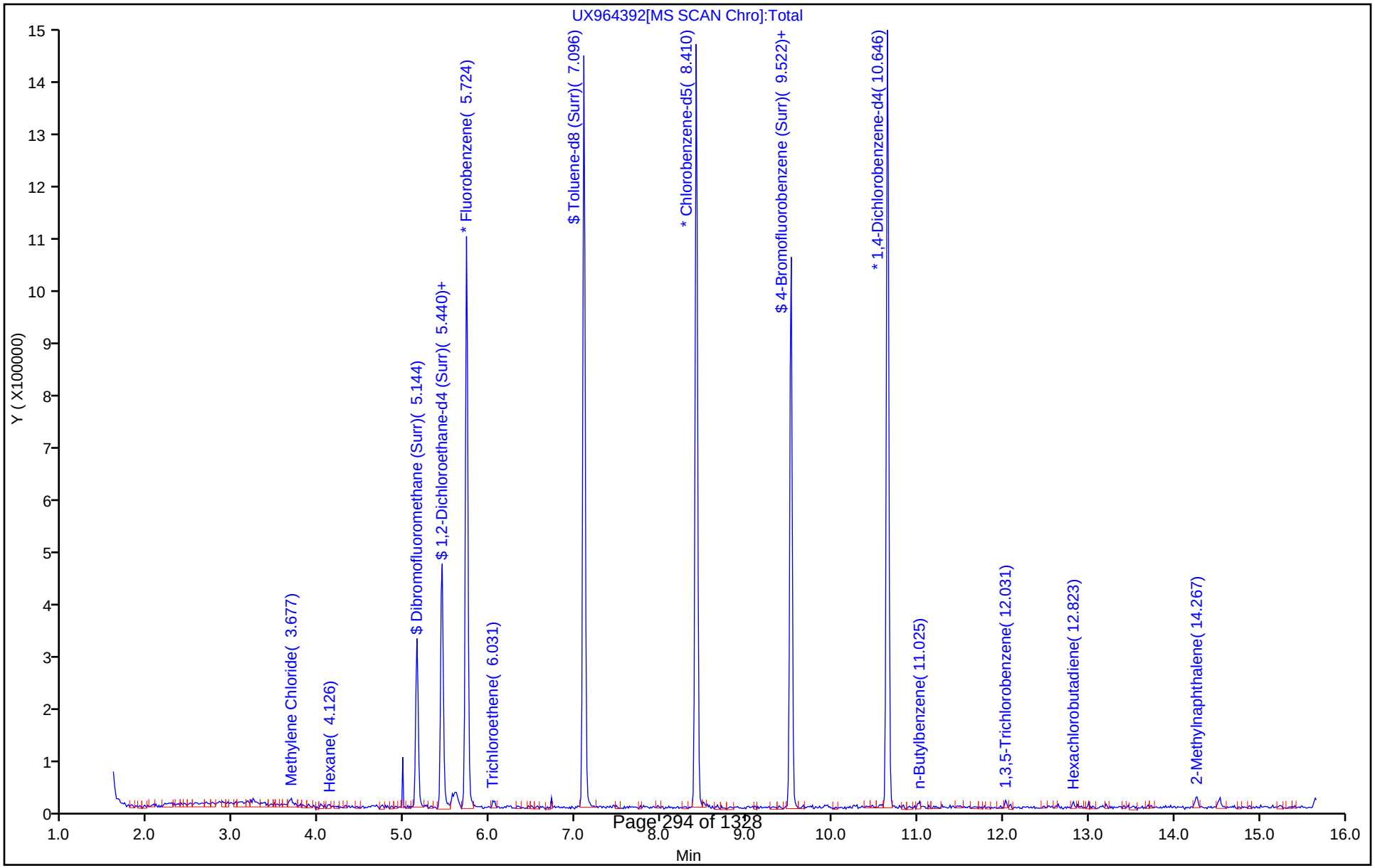
Report Date: 13-Jul-2017 21:56:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964392.D

Injection Date:	13-Jul-2017 20:36:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964392.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Jul-2017 20:36:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-007
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 21:55:57 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 21:55:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	18.7	93.47
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	18.2	91.13
$ 6 Toluene-d8 (Surr)	20.0	20.3	101.28
$ 7 4-Bromofluorobenzene (Surr)	20.0	20.3	101.31

Report Date: 13-Jul-2017 21:56:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964392.D

Injection Date: 13-Jul-2017 20:36:30 Instrument ID: A3UX9

Lims ID: MB

Client ID:

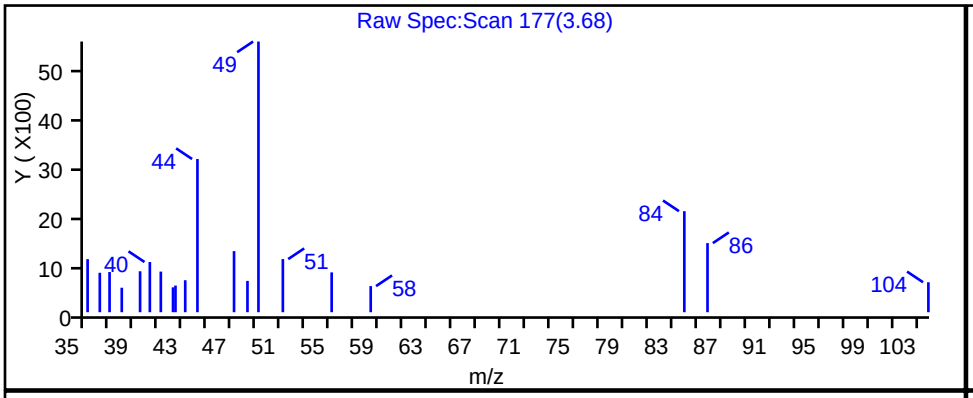
Operator ID: 001904 ALS Bottle#: 6 Worklist Smp#: 7

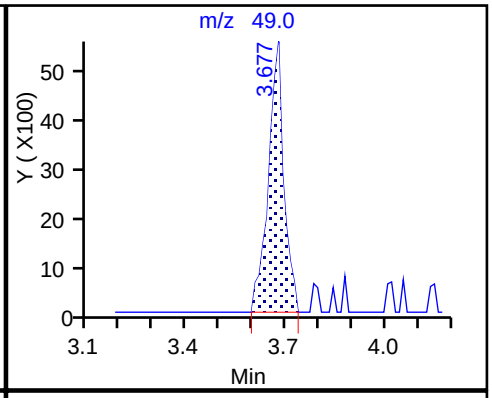
Purge Vol: 5.000 mL Dil. Factor: 1.0000

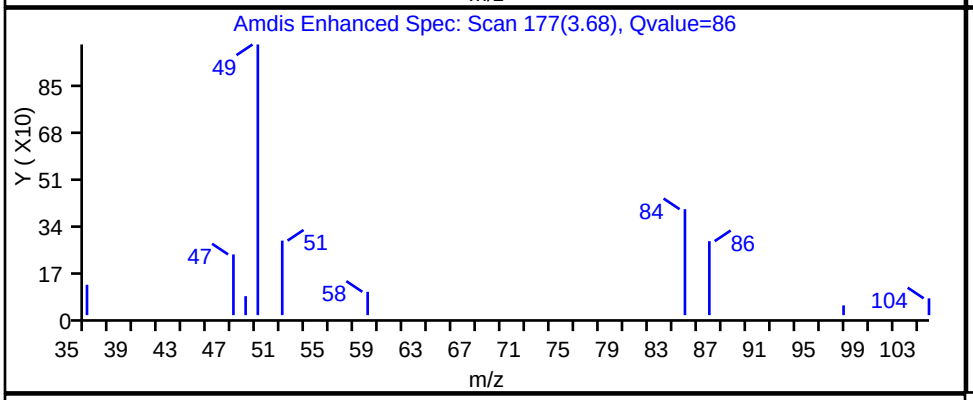
Method: 8260_9 Limit Group: MSV 8260C ICAL

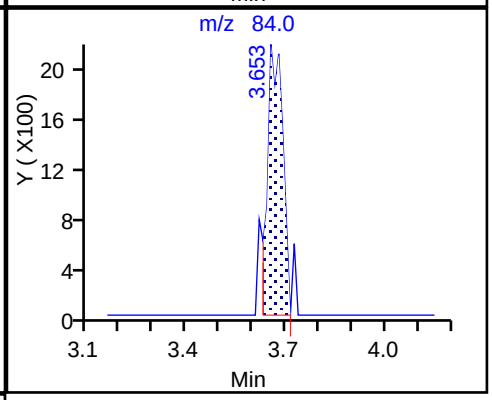
Column: DB-624 (0.18 mm) Detector MS SCAN

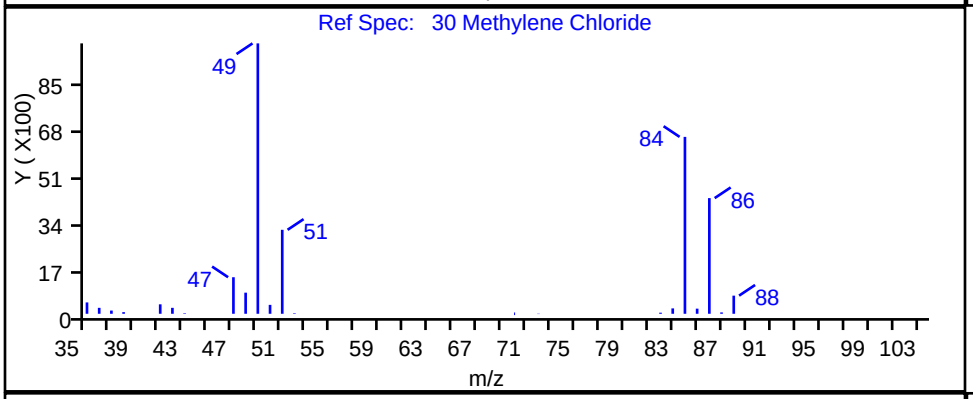
30 Methylene Chloride, CAS: 75-09-2

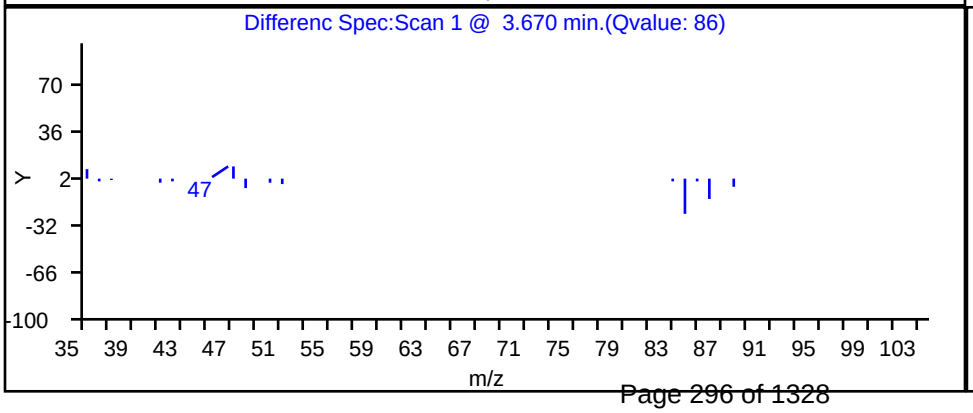


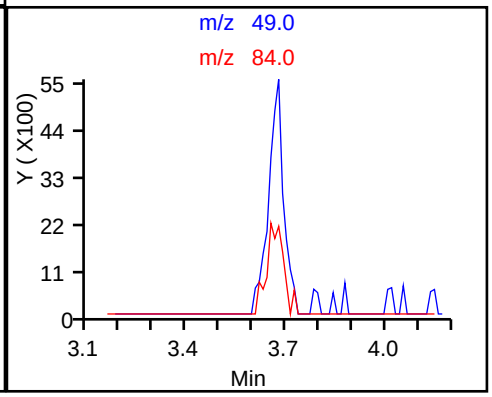












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287117/4

Matrix: Water | Lab File ID: UX964389.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.4		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	19.2		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	19.0		1.0	0.41
79-00-5	1,1,2-Trichloroethane	22.3		1.0	0.34
75-34-3	1,1-Dichloroethane	22.1		1.0	0.25
75-35-4	1,1-Dichloroethene	20.2		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	22.3		1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	18.4		2.0	0.47
106-93-4	Ethylene Dibromide	20.6		1.0	0.23
95-50-1	1,2-Dichlorobenzene	21.5		1.0	0.26
107-06-2	1,2-Dichloroethane	21.5		1.0	0.30
78-87-5	1,2-Dichloropropane	21.1		1.0	0.30
541-73-1	1,3-Dichlorobenzene	21.6		1.0	0.32
106-46-7	1,4-Dichlorobenzene	21.4		1.0	0.23
78-93-3	2-Butanone (MEK)	37.2		10	1.0
591-78-6	2-Hexanone	38.9		10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	37.1		10	0.71
67-64-1	Acetone	37.0		10	1.8
71-43-2	Benzene	22.0		1.0	0.28
75-27-4	Dichlorobromomethane	20.7		1.0	0.30
75-25-2	Bromoform	20.2		1.0	0.43
74-83-9	Bromomethane	18.5		1.0	0.42
75-15-0	Carbon disulfide	19.4		1.0	0.34
56-23-5	Carbon tetrachloride	22.2		1.0	0.35
108-90-7	Chlorobenzene	20.3		1.0	0.32
75-00-3	Chloroethane	20.4		1.0	0.41
67-66-3	Chloroform	21.7		1.0	0.31
74-87-3	Chloromethane	20.5		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	22.0		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	22.4		1.0	0.26
110-82-7	Cyclohexane	20.0		1.0	0.44
124-48-1	Chlorodibromomethane	20.7		1.0	0.25
75-71-8	Dichlorodifluoromethane	23.3		1.0	0.50
100-41-4	Ethylbenzene	22.4		1.0	0.26
98-82-8	Isopropylbenzene	22.6		1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287117/4

Matrix: Water | Lab File ID: UX964389.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2017 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	36.6		10	1.4
1634-04-4	Methyl tert-butyl ether	21.9		1.0	0.27
108-87-2	Methylcyclohexane	19.4		1.0	0.45
75-09-2	Methylene Chloride	19.5		1.0	0.53
100-42-5	Styrene	22.4		1.0	0.23
127-18-4	Tetrachloroethene	20.9		1.0	0.30
108-88-3	Toluene	21.6		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	21.0		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	20.3		1.0	0.31
79-01-6	Trichloroethene	22.9		1.0	0.33
75-69-4	Trichlorofluoromethane	22.6		1.0	0.50
75-01-4	Vinyl chloride	21.3		1.0	0.45
1330-20-7	Xylenes, Total	44.4		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964389.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Jul-2017 19:26:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-004
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 21:52:46 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 21:52:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	97	970724	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	94	814562	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.647	10.646	0.001	93	471361	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	94	231255	20.0	20.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	96	361440	20.0	20.4	
$ 6 Toluene-d8 (Surr)	98	7.097	7.096	0.001	95	936149	20.0	20.9	
$ 7 4-Bromofluorobenzene (Surr	95	9.523	9.521	0.002	92	417151	20.0	21.4	
9 Dichlorodifluoromethane	85	1.713	1.700	0.013	97	289478	20.0	23.3	
10 Chloromethane	50	1.879	1.877	0.002	100	497173	20.0	20.5	
11 Vinyl chloride	62	2.009	2.008	0.001	100	339069	20.0	21.3	
12 Butadiene	54	2.044	2.055	-0.011	93	394307	20.0	18.4	
13 Bromomethane	94	2.364	2.363	0.001	91	113924	20.0	18.5	
15 Chloroethane	64	2.470	2.481	-0.011	92	181793	20.0	20.4	
16 Dichlorofluoromethane	67	2.660	2.658	0.002	95	359735	20.0	20.3	
17 Trichlorofluoromethane	101	2.719	2.718	0.001	97	277979	20.0	22.6	
18 Ethyl ether	59	2.967	2.966	0.001	91	244482	20.0	21.2	
21 Acrolein	56	3.086	3.084	0.002	99	178607	100.0	117.6	
24 1,1-Dichloroethene	61	3.216	3.215	0.001	87	452618	20.0	20.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.228	3.226	0.002	76	158725	20.0	19.0	
23 Acetone	43	3.228	3.226	0.002	97	237348	40.0	37.0	
25 Iodomethane	142	3.381	3.380	0.001	98	327867	20.0	22.5	
26 Carbon disulfide	76	3.429	3.428	0.001	93	392600	20.0	19.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
28 3-Chloro-1-propene	41	3.512	3.510	0.002	82	466798	20.0	24.6	
29 Methyl acetate	43	3.523	3.522	0.001	99	599661	40.0	36.6	
30 Methylene Chloride	49	3.665	3.676	-0.011	88	664847	20.0	19.5	
31 2-Methyl-2-propanol	59	3.713	3.712	0.001	98	414039	200.0	198.4	
32 Acrylonitrile	53	3.831	3.830	0.001	98	1815964	200.0	203.5	
33 Methyl tert-butyl ether	73	3.878	3.877	0.001	92	792393	20.0	21.9	
34 trans-1,2-Dichloroethene	61	3.878	3.877	0.001	69	531990	20.0	21.0	
35 Hexane	57	4.115	4.114	0.001	94	463961	20.0	18.7	
36 1,1-Dichloroethane	63	4.245	4.244	0.001	98	593911	20.0	22.1	
37 Vinyl acetate	43	4.269	4.280	-0.011	97	896873	20.0	20.1	
43 cis-1,2-Dichloroethene	61	4.742	4.741	0.001	92	587551	20.0	22.0	
41 2-Butanone (MEK)	43	4.742	4.741	0.001	78	455584	40.0	37.2	
42 2,2-Dichloropropane	77	4.742	4.741	0.001	81	199663	20.0	22.0	
47 Chlorobromomethane	49	4.943	4.942	0.001	86	424208	20.0	20.2	
48 Tetrahydrofuran	42	4.991	4.989	0.002	93	305256	40.0	39.1	
49 Chloroform	83	5.002	5.001	0.001	95	455699	20.0	21.7	
50 1,1,1-Trichloroethane	97	5.180	5.179	0.001	93	399301	20.0	23.4	
51 Cyclohexane	84	5.239	5.238	0.001	91	390662	20.0	20.0	
52 1,1-Dichloropropene	75	5.322	5.321	0.001	87	347763	20.0	21.9	
53 Carbon tetrachloride	117	5.334	5.333	0.001	95	329985	20.0	22.2	
54 Isobutyl alcohol	41	5.369	5.368	0.001	94	368555	500.0	436.3	
55 Benzene	78	5.499	5.498	0.001	92	1029251	20.0	22.0	
56 1,2-Dichloroethane	62	5.499	5.498	0.001	94	547598	20.0	21.5	
58 n-Heptane	71	5.712	5.711	0.001	95	161307	20.0	20.0	
60 Trichloroethene	130	6.044	6.043	0.001	90	314046	20.0	22.9	
62 Methylcyclohexane	83	6.221	6.220	0.001	92	344435	20.0	19.4	
63 1,2-Dichloropropane	63	6.233	6.232	0.001	86	353285	20.0	21.1	
65 1,4-Dioxane	88	6.340	6.338	0.002	43	76032	400.0	551.2	
66 Dibromomethane	174	6.340	6.338	0.002	91	197998	20.0	21.8	
67 Dichlorobromomethane	83	6.458	6.457	0.001	93	334953	20.0	20.7	
69 2-Chloroethyl vinyl ether	63	6.706	6.705	0.001	88	256901	20.0	21.1	
71 cis-1,3-Dichloropropene	75	6.848	6.847	0.001	79	407792	20.0	22.4	
72 4-Methyl-2-pentanone (MIBK	43	6.967	6.966	0.001	98	972859	40.0	37.1	
73 Toluene	91	7.156	7.155	0.001	97	1112344	20.0	21.6	
74 trans-1,3-Dichloropropene	75	7.333	7.332	0.001	86	371500	20.0	20.3	
75 Ethyl methacrylate	69	7.404	7.403	0.001	87	357838	20.0	20.2	
76 1,1,2-Trichloroethane	97	7.499	7.498	0.001	93	268940	20.0	22.3	
78 Tetrachloroethene	166	7.665	7.664	0.001	76	308337	20.0	20.9	
77 1,3-Dichloropropane	76	7.665	7.664	0.001	88	434164	20.0	21.3	
80 2-Hexanone	43	7.712	7.711	0.001	99	717997	40.0	38.9	
82 Chlorodibromomethane	129	7.878	7.877	0.001	89	267746	20.0	20.7	
83 Ethylene Dibromide	107	7.984	7.983	0.001	98	281283	20.0	20.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 Chlorobenzene	112	8.446	8.445	0.001	91	805739	20.0	20.3	
86 1,1,1,2-Tetrachloroethane	131	8.505	8.516	-0.011	90	297790	20.0	21.8	
87 Ethylbenzene	106	8.540	8.539	0.001	97	420159	20.0	22.4	
88 m-Xylene & p-Xylene	106	8.647	8.646	0.001	97	517978	20.0	21.9	
90 Styrene	104	9.026	9.024	0.002	92	849196	20.0	22.4	
89 o-Xylene	106	9.026	9.024	0.002	96	508018	20.0	22.5	
91 Bromoform	173	9.215	9.214	0.001	96	174668	20.0	20.2	
92 Isopropylbenzene	105	9.369	9.368	0.001	96	1219923	20.0	22.6	
94 1,1,2,2-Tetrachloroethane	83	9.641	9.640	0.001	97	352016	20.0	19.2	
95 Bromobenzene	156	9.676	9.675	0.001	86	368881	20.0	22.1	
97 1,2,3-Trichloropropane	110	9.688	9.687	0.001	91	131993	20.0	19.3	
96 trans-1,4-Dichloro-2-buten	53	9.688	9.687	0.001	71	195519	20.0	17.7	
98 N-Propylbenzene	120	9.771	9.770	0.001	98	388862	20.0	22.1	
100 2-Chlorotoluene	126	9.854	9.865	-0.011	96	330816	20.0	21.1	
101 1,3,5-Trimethylbenzene	105	9.937	9.936	0.001	96	1003312	20.0	20.9	
102 4-Chlorotoluene	126	9.960	9.959	0.001	97	360436	20.0	21.3	
104 tert-Butylbenzene	119	10.256	10.255	0.001	93	1064935	20.0	22.8	
106 1,2,4-Trimethylbenzene	105	10.304	10.302	0.002	95	1073523	20.0	21.4	
107 sec-Butylbenzene	134	10.469	10.468	0.001	95	304221	20.0	22.3	
108 1,3-Dichlorobenzene	146	10.588	10.586	0.002	97	695753	20.0	21.6	
109 4-Isopropyltoluene	119	10.611	10.610	0.001	97	1121486	20.0	22.0	
110 1,4-Dichlorobenzene	146	10.670	10.669	0.001	93	723376	20.0	21.4	
113 n-Butylbenzene	91	11.013	11.012	0.001	96	813402	20.0	21.1	
114 1,2-Dichlorobenzene	146	11.049	11.048	0.001	97	695407	20.0	21.5	
115 1,2-Dibromo-3-Chloropropan	157	11.818	11.817	0.001	80	74471	20.0	18.4	
117 1,2,4-Trichlorobenzene	180	12.646	12.645	0.001	95	416230	20.0	22.3	
118 Hexachlorobutadiene	225	12.824	12.823	0.001	96	168304	20.0	23.9	
119 Naphthalene	128	12.907	12.906	0.001	97	1217853	20.0	21.3	
120 1,2,3-Trichlorobenzene	180	13.167	13.166	0.001	96	390278	20.0	23.3	
S 158 Total BTEX	1				0		100.0	110.3	
S 130 Trihalomethanes, Total	83				0		80.0	83.3	
S 131 Xylenes, Total	106				0		40.0	44.3	

Reagents:

vmfasgw_00217	Amount Added:	16.00	Units: uL	
vmfaspw_00210	Amount Added:	16.00	Units: uL	
vmfasaw_00195	Amount Added:	16.00	Units: uL	
vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

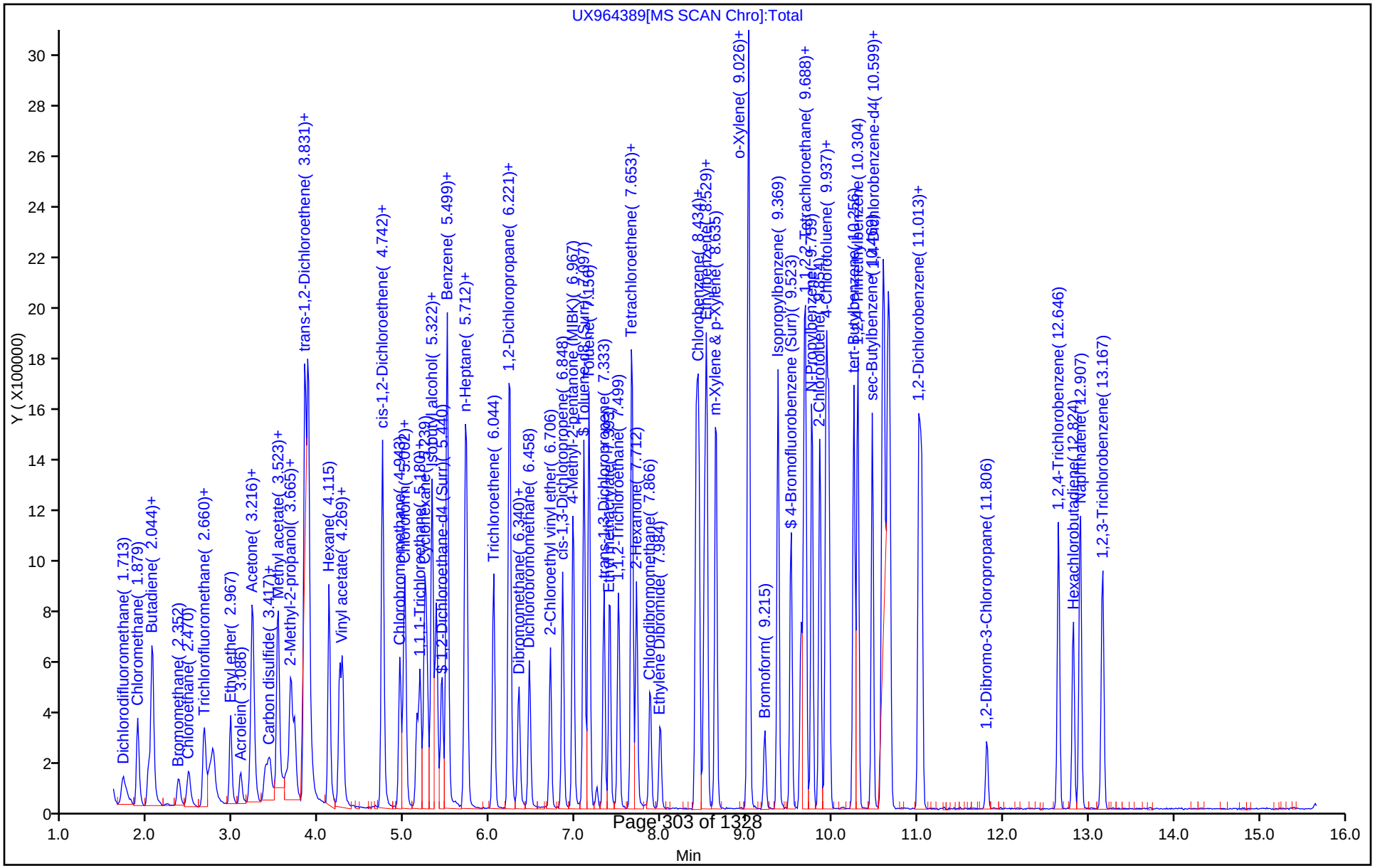
Report Date: 13-Jul-2017 21:52:47 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964389.D

Injection Date:	13-Jul-2017 19:26:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964389.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Jul-2017 19:26:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0066907-004
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 13-Jul-2017 21:52:46 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: laveyt Date: 13-Jul-2017 21:52:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.6	102.92
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	20.4	102.24
$ 6 Toluene-d8 (Surr)	20.0	20.9	104.62
$ 7 4-Bromofluorobenzene (Surr)	20.0	21.4	106.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82074-B-10 MS

Matrix: Water | Lab File ID: UX964413.D

Analysis Method: 8260C | Date Collected: 07/06/2017 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/14/2017 05:02

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	236		13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	209		13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	223		13	5.1
79-00-5	1,1,2-Trichloroethane	229		13	4.3
75-34-3	1,1-Dichloroethane	234		13	3.1
75-35-4	1,1-Dichloroethene	231		13	3.4
120-82-1	1,2,4-Trichlorobenzene	222		13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	184		25	5.9
106-93-4	Ethylene Dibromide	211		13	2.9
95-50-1	1,2-Dichlorobenzene	222		13	3.3
107-06-2	1,2-Dichloroethane	239		13	3.8
78-87-5	1,2-Dichloropropane	219		13	3.8
541-73-1	1,3-Dichlorobenzene	223		13	4.0
106-46-7	1,4-Dichlorobenzene	226		13	2.9
78-93-3	2-Butanone (MEK)	399		130	13
591-78-6	2-Hexanone	386		130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	395		130	8.9
67-64-1	Acetone	460		130	22
71-43-2	Benzene	242		13	3.5
75-27-4	Dichlorobromomethane	214		13	3.8
75-25-2	Bromoform	190		13	5.4
74-83-9	Bromomethane	198		13	5.3
75-15-0	Carbon disulfide	207		13	4.3
56-23-5	Carbon tetrachloride	228		13	4.4
108-90-7	Chlorobenzene	217		13	4.0
75-00-3	Chloroethane	220		13	5.1
67-66-3	Chloroform	230		13	3.9
74-87-3	Chloromethane	223		13	5.4
156-59-2	cis-1,2-Dichloroethene	237		13	3.8
10061-01-5	cis-1,3-Dichloropropene	227		13	3.3
110-82-7	Cyclohexane	218		13	5.5
124-48-1	Chlorodibromomethane	194		13	3.1
75-71-8	Dichlorodifluoromethane	241		13	6.3
100-41-4	Ethylbenzene	229		13	3.3
98-82-8	Isopropylbenzene	229		13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82074-B-10 MS

Matrix: Water | Lab File ID: UX964413.D

Analysis Method: 8260C | Date Collected: 07/06/2017 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/14/2017 05:02

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	423		130	18
1634-04-4	Methyl tert-butyl ether	231		13	3.4
108-87-2	Methylcyclohexane	217		13	5.6
75-09-2	Methylene Chloride	204		13	6.6
100-42-5	Styrene	229		13	2.9
127-18-4	Tetrachloroethene	221		13	3.8
108-88-3	Toluene	225		13	2.9
156-60-5	trans-1,2-Dichloroethene	233		13	3.6
10061-02-6	trans-1,3-Dichloropropene	194		13	3.9
79-01-6	Trichloroethene	832		13	4.1
75-69-4	Trichlorofluoromethane	254		13	6.3
75-01-4	Vinyl chloride	226		13	5.6
1330-20-7	Xylenes, Total	456		25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964413.D
Lims ID: 240-82074-B-10 MS
Client ID:
Sample Type: MS
Inject. Date: 14-Jul-2017 05:02:30 ALS Bottle#: 35 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 240-0066907-028
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 14:01:08 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 14:01:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	97	920749	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	92	800418	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.645	0.001	93	452853	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	93	217574	20.0	20.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	97	353848	20.0	21.1	
$ 6 Toluene-d8 (Surr)	98	7.097	7.096	0.001	95	901861	20.0	20.5	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.521	0.001	91	409841	20.0	21.4	
9 Dichlorodifluoromethane	85	1.713	1.700	0.013	97	226726	20.0	19.3	
10 Chloromethane	50	1.878	1.877	0.001	100	409954	20.0	17.8	
11 Vinyl chloride	62	2.009	2.008	0.001	99	272956	20.0	18.1	
13 Bromomethane	94	2.352	2.363	-0.011	88	92746	20.0	15.8	
15 Chloroethane	64	2.470	2.481	-0.011	93	148886	20.0	17.6	
17 Trichlorofluoromethane	101	2.718	2.718	0.000	97	236927	20.0	20.3	
24 1,1-Dichloroethene	61	3.215	3.215	0.000	88	392284	20.0	18.5	
23 Acetone	43	3.227	3.226	0.001	97	223684	40.0	36.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.227	3.226	0.001	91	141849	20.0	17.9	
26 Carbon disulfide	76	3.428	3.428	0.000	93	317541	20.0	16.5	
29 Methyl acetate	43	3.523	3.522	0.001	99	526535	40.0	33.9	
30 Methylene Chloride	49	3.665	3.676	-0.011	90	525761	20.0	16.3	
34 trans-1,2-Dichloroethene	61	3.878	3.877	0.001	72	448678	20.0	18.7	
33 Methyl tert-butyl ether	73	3.878	3.877	0.001	92	636173	20.0	18.5	
36 1,1-Dichloroethane	63	4.245	4.244	0.001	98	478135	20.0	18.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.742	4.741	0.001	90	479802	20.0	18.9	
41 2-Butanone (MEK)	43	4.742	4.741	0.001	76	370947	40.0	31.9	
49 Chloroform	83	5.002	5.001	0.001	95	365375	20.0	18.4	
50 1,1,1-Trichloroethane	97	5.180	5.179	0.001	93	304461	20.0	18.8	
51 Cyclohexane	84	5.251	5.238	0.013	91	322388	20.0	17.4	
53 Carbon tetrachloride	117	5.334	5.333	0.001	94	257890	20.0	18.3	
56 1,2-Dichloroethane	62	5.499	5.498	0.001	91	461058	20.0	19.1	
55 Benzene	78	5.499	5.498	0.001	94	859109	20.0	19.4	
60 Trichloroethene	130	6.043	6.043	0.000	89	861221	20.0	66.5	E
62 Methylcyclohexane	83	6.221	6.220	0.001	92	291647	20.0	17.4	
63 1,2-Dichloropropane	63	6.233	6.232	0.001	84	278538	20.0	17.5	
67 Dichlorobromomethane	83	6.458	6.457	0.001	93	262988	20.0	17.1	
71 cis-1,3-Dichloropropene	75	6.848	6.847	0.001	80	314002	20.0	18.2	
72 4-Methyl-2-pentanone (MIBK	43	6.966	6.966	0.000	98	786688	40.0	31.6	
73 Toluene	91	7.156	7.155	0.001	97	908417	20.0	18.0	
74 trans-1,3-Dichloropropene	75	7.333	7.332	0.001	86	279115	20.0	15.5	
76 1,1,2-Trichloroethane	97	7.499	7.498	0.001	93	217193	20.0	18.3	
78 Tetrachloroethene	166	7.665	7.664	0.001	77	256547	20.0	17.7	
80 2-Hexanone	43	7.712	7.711	0.001	98	559433	40.0	30.9	
82 Chlorodibromomethane	129	7.878	7.877	0.001	89	196775	20.0	15.5	
83 Ethylene Dibromide	107	7.984	7.983	0.001	100	226765	20.0	16.9	
85 Chlorobenzene	112	8.446	8.445	0.001	94	677385	20.0	17.4	
87 Ethylbenzene	106	8.540	8.539	0.001	98	337936	20.0	18.3	
88 m-Xylene & p-Xylene	106	8.647	8.646	0.001	98	422454	20.0	18.1	
89 o-Xylene	106	9.025	9.024	0.001	95	406472	20.0	18.3	
90 Styrene	104	9.025	9.024	0.001	91	681628	20.0	18.3	
91 Bromoform	173	9.215	9.214	0.001	96	129460	20.0	15.2	
92 Isopropylbenzene	105	9.369	9.368	0.001	96	974469	20.0	18.3	
94 1,1,2,2-Tetrachloroethane	83	9.641	9.640	0.001	97	294322	20.0	16.7	
108 1,3-Dichlorobenzene	146	10.587	10.586	0.001	97	552474	20.0	17.9	
110 1,4-Dichlorobenzene	146	10.670	10.669	0.001	94	587041	20.0	18.1	
114 1,2-Dichlorobenzene	146	11.049	11.048	0.001	97	551309	20.0	17.7	
115 1,2-Dibromo-3-Chloropropan	157	11.818	11.817	0.001	74	57181	20.0	14.7	
117 1,2,4-Trichlorobenzene	180	12.646	12.645	0.001	93	319095	20.0	17.8	
S 131 Xylenes, Total	106				0		40.0	36.4	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

vmfasgw_00217	Amount Added:	16.00	Units: uL	
vmfasaw_00195	Amount Added:	16.00	Units: uL	
vmfaspw_00210	Amount Added:	16.00	Units: uL	
vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

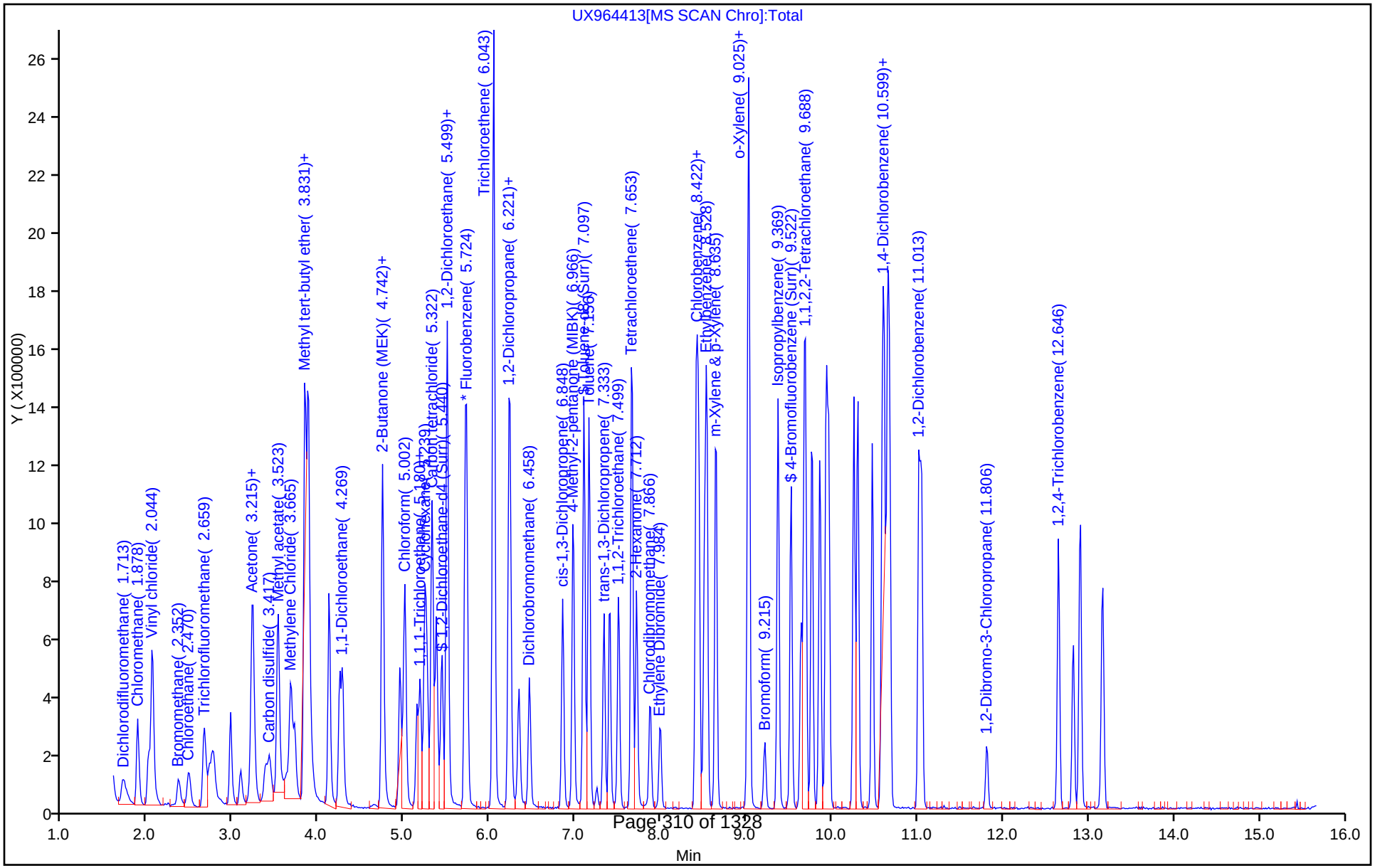
Report Date: 14-Jul-2017 14:01:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964413.D

Injection Date:	14-Jul-2017 05:02:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-82074-B-10 MS			Worklist Smp#:	28
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	35
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964413.D
Lims ID: 240-82074-B-10 MS
Client ID:
Sample Type: MS
Inject. Date: 14-Jul-2017 05:02:30 ALS Bottle#: 35 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 240-0066907-028
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 14:01:08 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 14:01:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.4	102.09
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	21.1	105.53
$ 6 Toluene-d8 (Surr)	20.0	20.5	102.57
$ 7 4-Bromofluorobenzene (Surr)	20.0	21.4	106.81

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82074-B-10 MSD

Matrix: Water | Lab File ID: UX964414.D

Analysis Method: 8260C | Date Collected: 07/06/2017 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/14/2017 05:26

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	236		13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	218		13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	225		13	5.1
79-00-5	1,1,2-Trichloroethane	221		13	4.3
75-34-3	1,1-Dichloroethane	238		13	3.1
75-35-4	1,1-Dichloroethene	229		13	3.4
120-82-1	1,2,4-Trichlorobenzene	227		13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	198		25	5.9
106-93-4	Ethylene Dibromide	220		13	2.9
95-50-1	1,2-Dichlorobenzene	226		13	3.3
107-06-2	1,2-Dichloroethane	237		13	3.8
78-87-5	1,2-Dichloropropane	226		13	3.8
541-73-1	1,3-Dichlorobenzene	225		13	4.0
106-46-7	1,4-Dichlorobenzene	221		13	2.9
78-93-3	2-Butanone (MEK)	406		130	13
591-78-6	2-Hexanone	400		130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	395		130	8.9
67-64-1	Acetone	470		130	22
71-43-2	Benzene	232		13	3.5
75-27-4	Dichlorobromomethane	218		13	3.8
75-25-2	Bromoform	186		13	5.4
74-83-9	Bromomethane	200		13	5.3
75-15-0	Carbon disulfide	197		13	4.3
56-23-5	Carbon tetrachloride	222		13	4.4
108-90-7	Chlorobenzene	211		13	4.0
75-00-3	Chloroethane	216		13	5.1
67-66-3	Chloroform	226		13	3.9
74-87-3	Chloromethane	227		13	5.4
156-59-2	cis-1,2-Dichloroethene	238		13	3.8
10061-01-5	cis-1,3-Dichloropropene	223		13	3.3
110-82-7	Cyclohexane	215		13	5.5
124-48-1	Chlorodibromomethane	208		13	3.1
75-71-8	Dichlorodifluoromethane	261		13	6.3
100-41-4	Ethylbenzene	224		13	3.3
98-82-8	Isopropylbenzene	221		13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-81987-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82074-B-10 MSD

Matrix: Water | Lab File ID: UX964414.D

Analysis Method: 8260C | Date Collected: 07/06/2017 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/14/2017 05:26

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287117 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	424		130	18
1634-04-4	Methyl tert-butyl ether	231		13	3.4
108-87-2	Methylcyclohexane	227		13	5.6
75-09-2	Methylene Chloride	214		13	6.6
100-42-5	Styrene	226		13	2.9
127-18-4	Tetrachloroethene	212		13	3.8
108-88-3	Toluene	223		13	2.9
156-60-5	trans-1,2-Dichloroethene	224		13	3.6
10061-02-6	trans-1,3-Dichloropropene	195		13	3.9
79-01-6	Trichloroethene	808		13	4.1
75-69-4	Trichlorofluoromethane	256		13	6.3
75-01-4	Vinyl chloride	225		13	5.6
1330-20-7	Xylenes, Total	445		25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

TestAmerica Canton

Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964414.D
Lims ID: 240-82074-B-10 MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-Jul-2017 05:26:30 ALS Bottle#: 36 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 240-0066907-029
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 14:01:08 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 14:02:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.723	0.001	98	932251	20.0	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.409	0.001	93	791388	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.645	0.001	93	435801	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.143	0.001	94	216081	20.0	20.0	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.439	0.001	97	338924	20.0	20.0	
$ 6 Toluene-d8 (Surr)	98	7.097	7.096	0.001	95	900241	20.0	20.7	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.521	0.001	92	405409	20.0	21.4	
9 Dichlorodifluoromethane	85	1.713	1.700	0.013	98	249076	20.0	20.9	
10 Chloromethane	50	1.878	1.877	0.001	100	422158	20.0	18.2	
11 Vinyl chloride	62	2.008	2.008	0.000	100	274913	20.0	18.0	
13 Bromomethane	94	2.363	2.363	0.000	90	94683	20.0	16.0	
15 Chloroethane	64	2.470	2.481	-0.011	93	148311	20.0	17.3	
17 Trichlorofluoromethane	101	2.718	2.718	0.000	97	241607	20.0	20.4	
24 1,1-Dichloroethene	61	3.215	3.215	0.000	86	393326	20.0	18.3	
23 Acetone	43	3.227	3.226	0.001	98	231412	40.0	37.6	
22 1,1,2-Trichloro-1,2,2-trif	101	3.227	3.226	0.001	79	144500	20.0	18.0	
26 Carbon disulfide	76	3.428	3.428	0.000	94	305715	20.0	15.7	
29 Methyl acetate	43	3.523	3.522	0.001	98	534252	40.0	33.9	
30 Methylene Chloride	49	3.665	3.676	-0.011	89	560198	20.0	17.1	
34 trans-1,2-Dichloroethene	61	3.878	3.877	0.001	69	435939	20.0	17.9	
33 Methyl tert-butyl ether	73	3.878	3.877	0.001	92	644474	20.0	18.5	
36 1,1-Dichloroethane	63	4.245	4.244	0.001	98	490809	20.0	19.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
43 cis-1,2-Dichloroethene	61	4.742	4.741	0.001	91	488251	20.0	19.0	
41 2-Butanone (MEK)	43	4.742	4.741	0.001	76	382483	40.0	32.5	
49 Chloroform	83	5.002	5.001	0.001	94	364521	20.0	18.1	
50 1,1,1-Trichloroethane	97	5.180	5.179	0.001	93	308447	20.0	18.9	
51 Cyclohexane	84	5.251	5.238	0.013	90	322349	20.0	17.2	
53 Carbon tetrachloride	117	5.333	5.333	0.000	94	253461	20.0	17.7	
56 1,2-Dichloroethane	62	5.499	5.498	0.001	95	464028	20.0	19.0	
55 Benzene	78	5.499	5.498	0.001	92	834314	20.0	18.6	
60 Trichloroethene	130	6.043	6.043	0.000	89	847080	20.0	64.6	E
62 Methylcyclohexane	83	6.221	6.220	0.001	92	308633	20.0	18.1	
63 1,2-Dichloropropane	63	6.233	6.232	0.001	86	290991	20.0	18.1	
67 Dichlorobromomethane	83	6.458	6.457	0.001	93	271293	20.0	17.5	
71 cis-1,3-Dichloropropene	75	6.848	6.847	0.001	80	311965	20.0	17.8	
72 4-Methyl-2-pentanone (MIBK	43	6.966	6.966	0.000	98	797038	40.0	31.6	
73 Toluene	91	7.156	7.155	0.001	97	889947	20.0	17.8	
74 trans-1,3-Dichloropropene	75	7.333	7.332	0.001	88	277754	20.0	15.6	
76 1,1,2-Trichloroethane	97	7.499	7.498	0.001	94	206886	20.0	17.7	
78 Tetrachloroethene	166	7.665	7.664	0.001	74	242992	20.0	17.0	
80 2-Hexanone	43	7.712	7.711	0.001	99	573102	40.0	32.0	
82 Chlorodibromomethane	129	7.878	7.877	0.001	90	208505	20.0	16.6	
83 Ethylene Dibromide	107	7.984	7.983	0.001	97	233465	20.0	17.6	
85 Chlorobenzene	112	8.446	8.445	0.001	91	652324	20.0	16.9	
87 Ethylbenzene	106	8.528	8.539	-0.011	97	326452	20.0	17.9	
88 m-Xylene & p-Xylene	106	8.647	8.646	0.001	98	401916	20.0	17.5	
89 o-Xylene	106	9.025	9.024	0.001	94	399644	20.0	18.2	
90 Styrene	104	9.025	9.024	0.001	81	664411	20.0	18.1	
91 Bromoform	173	9.215	9.214	0.001	95	125064	20.0	14.9	
92 Isopropylbenzene	105	9.368	9.368	0.000	96	930623	20.0	17.7	
94 1,1,2,2-Tetrachloroethane	83	9.641	9.640	0.001	97	295584	20.0	17.4	
108 1,3-Dichlorobenzene	146	10.587	10.586	0.001	96	535617	20.0	18.0	
110 1,4-Dichlorobenzene	146	10.670	10.669	0.001	94	552567	20.0	17.7	
114 1,2-Dichlorobenzene	146	11.049	11.048	0.001	97	541955	20.0	18.1	
115 1,2-Dibromo-3-Chloropropan	157	11.818	11.817	0.001	87	59211	20.0	15.8	
117 1,2,4-Trichlorobenzene	180	12.646	12.645	0.001	93	313371	20.0	18.2	
S 131 Xylenes, Total	106				0		40.0	35.6	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

vmfasgw_00217	Amount Added:	16.00	Units: uL	
vmfasaw_00195	Amount Added:	16.00	Units: uL	
vmfaspw_00210	Amount Added:	16.00	Units: uL	
vm100ss_stk_00026	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00097	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00033	Amount Added:	1.00	Units: uL	Run Reagent

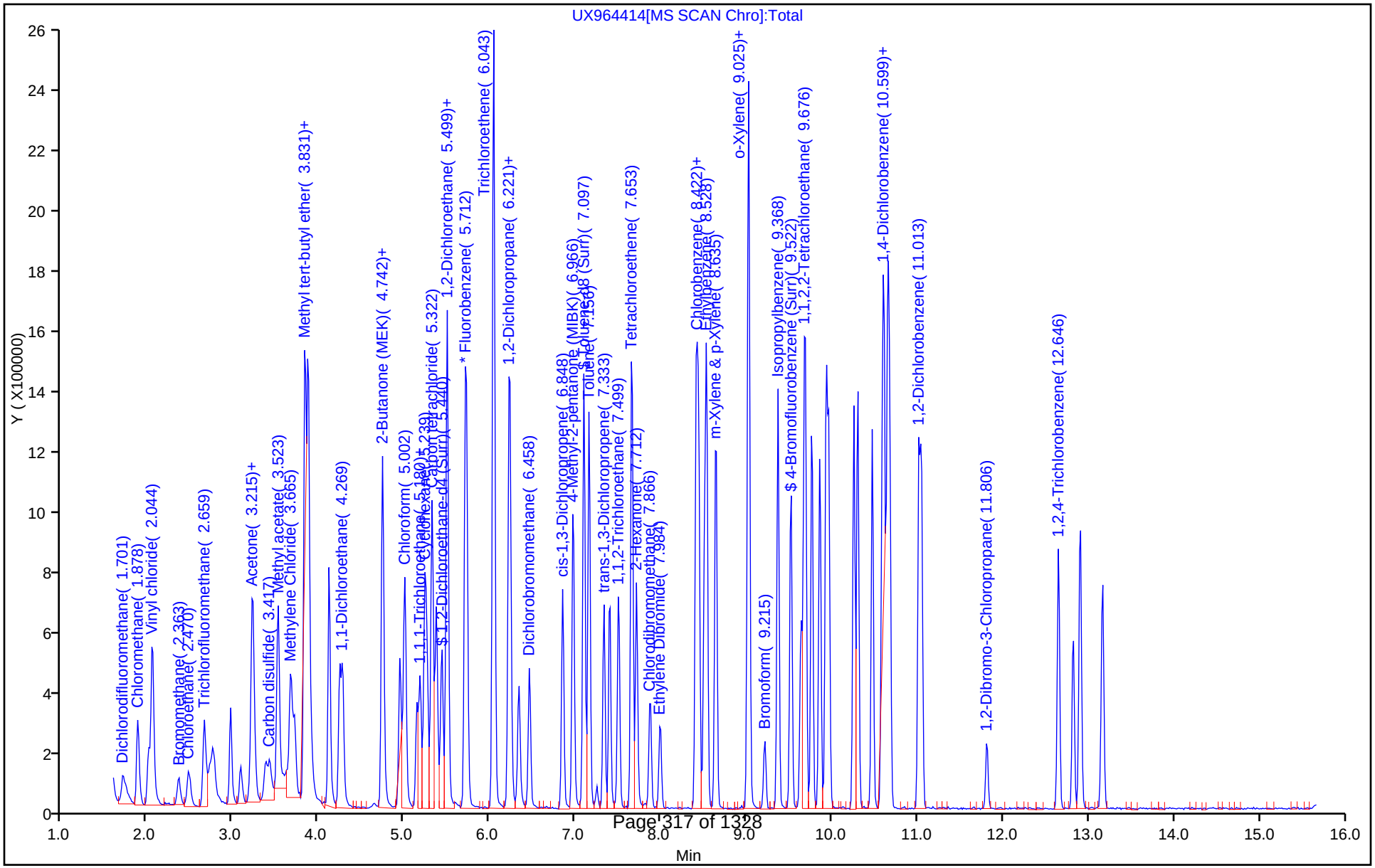
Report Date: 14-Jul-2017 14:02:04 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964414.D

Injection Date:	14-Jul-2017 05:26:30	Instrument ID:	A3UX9	Operator ID:	001904
Lims ID:	240-82074-B-10 MSD			Worklist Smp#:	29
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	36
Method:	8260_9	Limit Group:	MSV 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Canton

Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\UX964414.D
Lims ID: 240-82074-B-10 MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-Jul-2017 05:26:30 ALS Bottle#: 36 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 240-0066907-029
Operator ID: 001904 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170713-66907.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Jul-2017 14:01:08 Calib Date: 11-Jul-2017 00:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20170710-66789.b\UX964323.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: laveyt Date: 14-Jul-2017 14:02:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.0	100.14
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	20.0	99.83
$ 6 Toluene-d8 (Surr)	20.0	20.7	103.55
$ 7 4-Bromofluorobenzene (Surr)	20.0	21.4	106.86

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: A3UX9 Start Date: 07/10/2017 19:06

Analysis Batch Number: 286596 End Date: 07/11/2017 00:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-286596/2		07/10/2017 19:06	1	BFB3716.D	DB-624 0.18(mm)
STD8260 240-286596/8 IC		07/10/2017 19:33	1	UX964311.D	DB-624 0.18(mm)
STD8260 240-286596/9 IC		07/10/2017 19:57	1	UX964312.D	DB-624 0.18(mm)
STD8260 240-286596/10 IC		07/10/2017 20:21	1	UX964313.D	DB-624 0.18(mm)
ICIS 240-286596/11		07/10/2017 20:45	1	UX964314.D	DB-624 0.18(mm)
STD8260 240-286596/12 IC		07/10/2017 21:09	1	UX964315.D	DB-624 0.18(mm)
STD8260 240-286596/13 IC		07/10/2017 21:33	1	UX964316.D	DB-624 0.18(mm)
ICV 240-286596/14		07/10/2017 21:57	1	UX964317.D	DB-624 0.18(mm)
STDA9 240-286596/15 IC		07/10/2017 22:20	1		DB-624 0.18(mm)
STDA9 240-286596/16 IC		07/10/2017 22:44	1		DB-624 0.18(mm)
STDA9 240-286596/17 IC		07/10/2017 23:08	1		DB-624 0.18(mm)
STDA9 240-286596/18 IC		07/10/2017 23:32	1		DB-624 0.18(mm)
STDA9 240-286596/19 IC		07/10/2017 23:56	1		DB-624 0.18(mm)
STDA9 240-286596/20 IC		07/11/2017 00:20	1		DB-624 0.18(mm)
ICV 240-286596/21		07/11/2017 00:44	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: A3UX9 Start Date: 07/13/2017 18:35

Analysis Batch Number: 287117 End Date: 07/14/2017 05:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-287117/33		07/13/2017 18:35	1	BFB3721.D	DB-624 0.18(mm)
CCVIS 240-287117/3		07/13/2017 19:01	1	UX964388.D	DB-624 0.18(mm)
LCS 240-287117/4		07/13/2017 19:26	1	UX964389.D	DB-624 0.18(mm)
CCV 240-287117/5		07/13/2017 19:50	1	UX964390.D	DB-624 0.18(mm)
MDLV 240-287117/6		07/13/2017 20:12	1		DB-624 0.18(mm)
MB 240-287117/7		07/13/2017 20:36	1	UX964392.D	DB-624 0.18(mm)
ZZZZZ		07/13/2017 21:00	12.5		DB-624 0.18(mm)
ZZZZZ		07/13/2017 21:24	1		DB-624 0.18(mm)
240-81987-1		07/13/2017 21:48	400	UX964395.D	DB-624 0.18(mm)
240-81987-2		07/13/2017 22:13	25	UX964396.D	DB-624 0.18(mm)
240-81987-3		07/13/2017 22:37	62.5	UX964397.D	DB-624 0.18(mm)
240-81987-4		07/13/2017 23:01	1250	UX964398.D	DB-624 0.18(mm)
240-81987-5		07/13/2017 23:25	1	UX964399.D	DB-624 0.18(mm)
ZZZZZ		07/13/2017 23:49	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 00:13	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 00:37	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 01:01	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 01:25	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 01:49	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 02:13	4		DB-624 0.18(mm)
ZZZZZ		07/14/2017 02:38	6.25		DB-624 0.18(mm)
ZZZZZ		07/14/2017 03:02	6.25		DB-624 0.18(mm)
ZZZZZ		07/14/2017 03:26	12.5		DB-624 0.18(mm)
ZZZZZ		07/14/2017 03:50	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 04:14	1		DB-624 0.18(mm)
ZZZZZ		07/14/2017 04:38	1		DB-624 0.18(mm)
240-82074-B-10 MS		07/14/2017 05:02	12.5	UX964413.D	DB-624 0.18(mm)
240-82074-B-10 MSD		07/14/2017 05:26	12.5	UX964414.D	DB-624 0.18(mm)

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RT-U-Bond ID: 0.53(mm)

Client Sample ID	Lab Sample ID	ACLN1 #
SEMW-9I-070617	240-81987-2	99
SEMW-8I-070617	240-81987-3	101
	MB 490-445410/7	96
	LCS 490-445410/8	102
	LCSD 490-445410/9	103

	QC LIMITS
ACLN = Acetylene (Surr)	62-124

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 071717hp75_008dat-FID.d

Lab ID: LCS 490-445410/8 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Ethane	0.527	0.510	97	80-120	
Ethene	0.493	0.499	101	80-120	
Methane	0.287	0.277	96	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 071817hp75_006dat-FID.d

Lab ID: LCS 490-445603/6 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Acetylene	0.463	0.466	101	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 071717hp75_009dat-FID.d

Lab ID: LCSD 490-445410/9 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethane	0.527	0.522	99	2	30	80-120	
Ethene	0.493	0.510	103	2	29	80-120	
Methane	0.287	0.283	99	2	33	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 071817hp75_007dat-FID.d

Lab ID: LCSD 490-445603/7 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acetylene	0.463	0.469	101	1	33	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: MB 490-445410/7

Matrix: Water Date Extracted:

Lab File ID:(1) 071717hp75_007dat-FID.d Lab File ID:(2)

Date Analyzed:(1) 07/17/2017 12:23 Date Analyzed:(2)

Instrument ID:(1) HP75 Instrument ID:(2)

GC Column:(1) RT-U-Bond ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	CCB 490-445410/6	07/17/2017 12:17	
	LCS 490-445410/8	07/17/2017 12:29	
	LCSD 490-445410/9	07/17/2017 12:43	
SEMW-9I-070617	240-81987-2	07/17/2017 12:57	
SEMW-8I-070617	240-81987-3	07/17/2017 13:03	
	CCB 490-445410/23	07/17/2017 14:50	
SEMW-9I-070617	240-81987-2	07/18/2017 11:06	
SEMW-8I-070617	240-81987-3	07/18/2017 11:09	

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Sample No.: ICRT 490-443329/6 Date Analyzed: 07/07/2017 12:14

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm)

Lab File ID (Standard): 070717hp75_006dat-F Heated Purge: (Y/N) N

Calibration ID: 66682

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				ACLN RT #		
INITIAL CALIBRATION SURROGATE				0.78		
UPPER LIMIT				0.88		
LOWER LIMIT				0.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 490-443329/6		07/07/2017 12:14	070717hp75_006dat-FID.d	0.78		
ICV 490-443329/14		07/07/2017 14:22	070717hp75_014dat-FID.d	0.79		

ACLN = Acetylene (Surr)

ACLN RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Sample No.: CCVRT 490-445410/5 Date Analyzed: 07/17/2017 11:55

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm)

Lab File ID (Standard): 071717hp75_005dat-F Heated Purge: (Y/N) N

Calibration ID: 66682

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				ACLN RT #		
CONTINUING CALIBRATION SURROGATE				0.78		
UPPER LIMIT				0.88		
LOWER LIMIT				0.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 490-445410/5		07/17/2017 11:55	071717hp75_005dat-FID.d	0.78		
MB 490-445410/7		07/17/2017 12:23	071717hp75_007dat-FID.d	0.78		
LCS 490-445410/8		07/17/2017 12:29	071717hp75_008dat-FID.d	0.78		
LCSD 490-445410/9		07/17/2017 12:43	071717hp75_009dat-FID.d	0.78		
240-81987-2	SEMW-9I-070617	07/17/2017 12:57	071717hp75_010dat-FID.d	0.78		
240-81987-3	SEMW-8I-070617	07/17/2017 13:03	071717hp75_011dat-FID.d	0.78		
CCV 490-445410/22		07/17/2017 14:32	071717hp75_022dat-FID.d	0.78		

ACLN = Acetylene (Surr)

ACLN RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9I-070617 Lab Sample ID: 240-81987-2

Matrix: Water Lab File ID: 071717hp75_010dat-FID.d

Analysis Method: RSK-175 Date Collected: 07/06/2017 12:40

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 12:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.0065		0.0050	0.0027
106-97-8	Butane	0.010		0.010	0.0058
74-85-1	Ethene	0.0069		0.0050	0.0022
74-82-8	Methane	0.0079		0.0050	0.0017
74-98-6	Propane	0.0090		0.0050	0.0033

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)	99		62-124

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d				
Lims ID:	240-81987-D-2				
Client ID:	SEMW-9I-070617				
Sample Type:	Client				
Inject. Date:	17-Jul-2017 12:57:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-D-2				
Misc. Info.:	240-81987-D-2				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				

First Level Reviewer: browna Date: 17-Jul-2017 14:09:56

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
	1 Methane					M
	0.567	0.563	0.004	2305	7.87	M
	2 Ethylene					M
	0.662	0.660	0.002	1659	6.87	M
	3 Ethane					M
	0.687	0.683	0.004	1852	6.49	M
$	4 Acetylene (Surr)					
	0.778	0.775	0.003	41900	455.9	
	6 Propane					
	1.160	1.153	0.007	2640	8.98	
	8 Butane					
	2.160	2.135	0.025	2848	10.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL

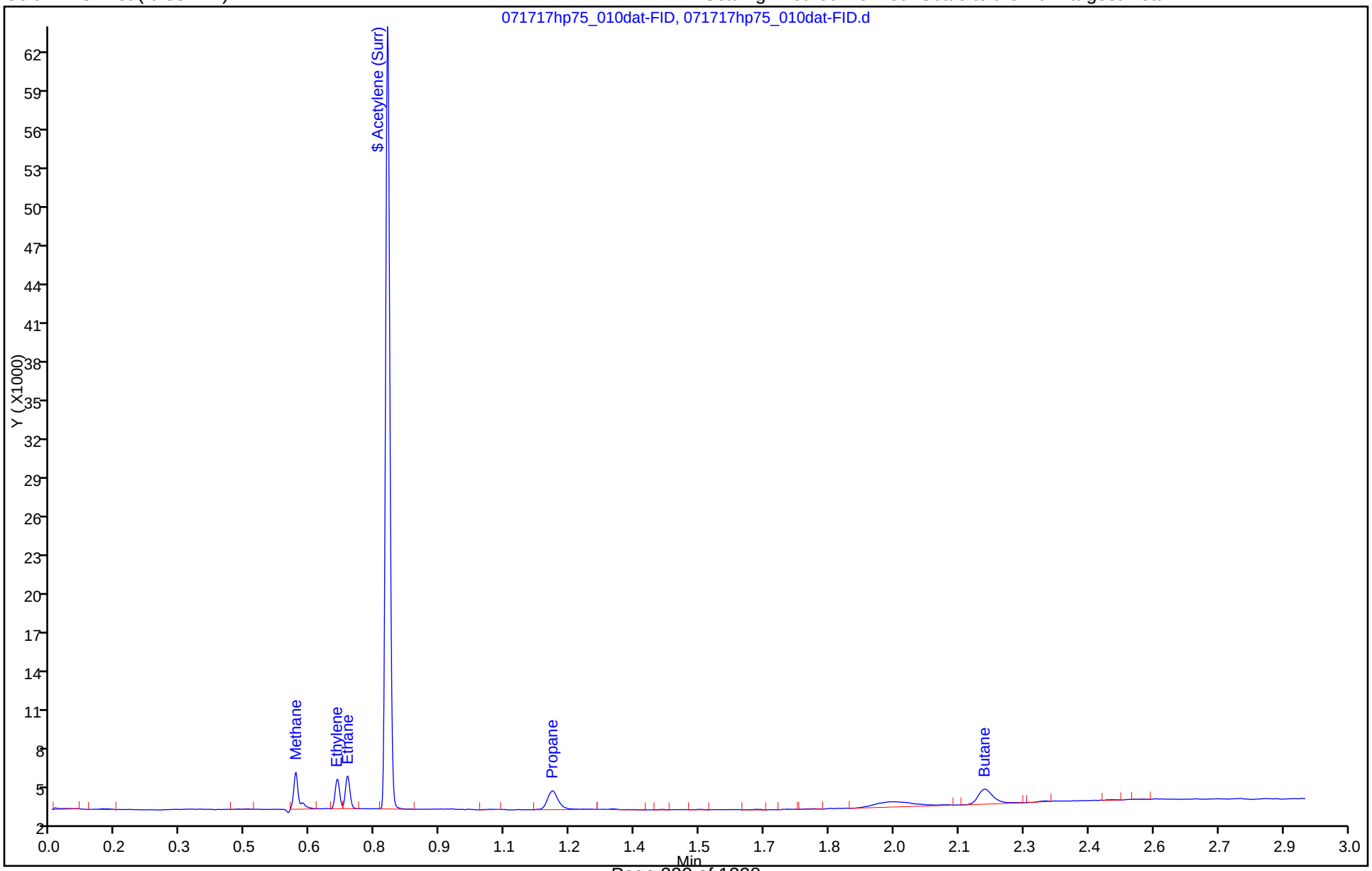
Report Date: 17-Jul-2017 14:33:18 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d

Injection Date:	17-Jul-2017 12:57:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	240-81987-D-2	Lab Sample ID:	490-81987-2	Worklist Smp#:	10
Client ID:	SEMW-9I-070617				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d				
Lims ID:	240-81987-D-2				
Client ID:	SEMW-9I-070617				
Sample Type:	Client				
Inject. Date:	17-Jul-2017 12:57:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-D-2				
Misc. Info.:	240-81987-D-2				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				

First Level Reviewer: browna Date: 17-Jul-2017 14:09:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	462.9	455.9	98.50

Manual Integration/User Assign Peak Report

TestAmerica Nashville

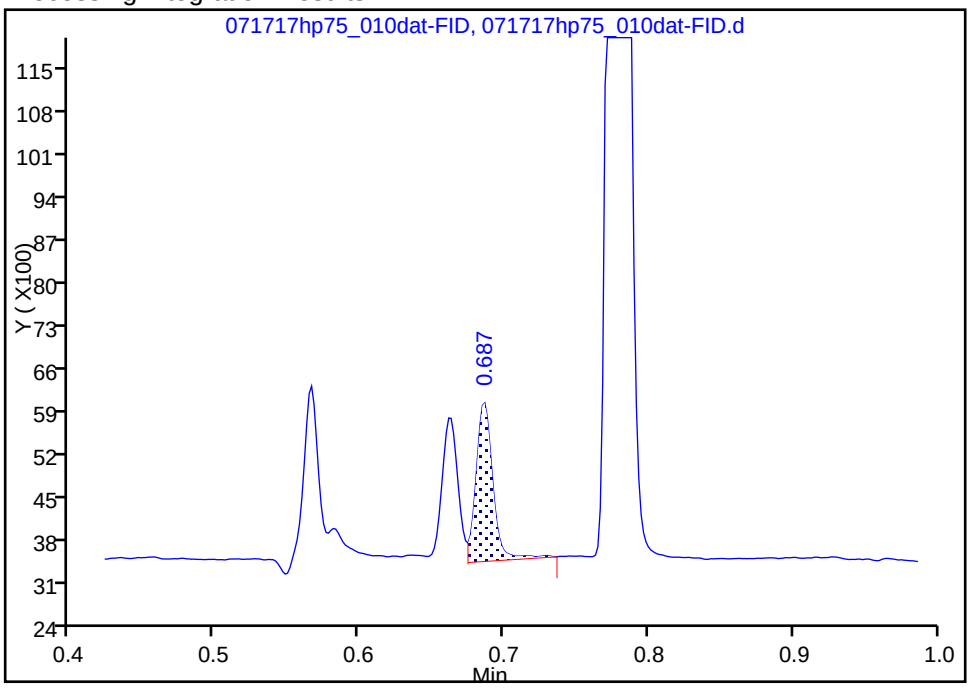
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d				
Injection Date:	17-Jul-2017 12:57:00	Instrument ID:	HP75		
Lims ID:	240-81987-D-2	Lab Sample ID:	490-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

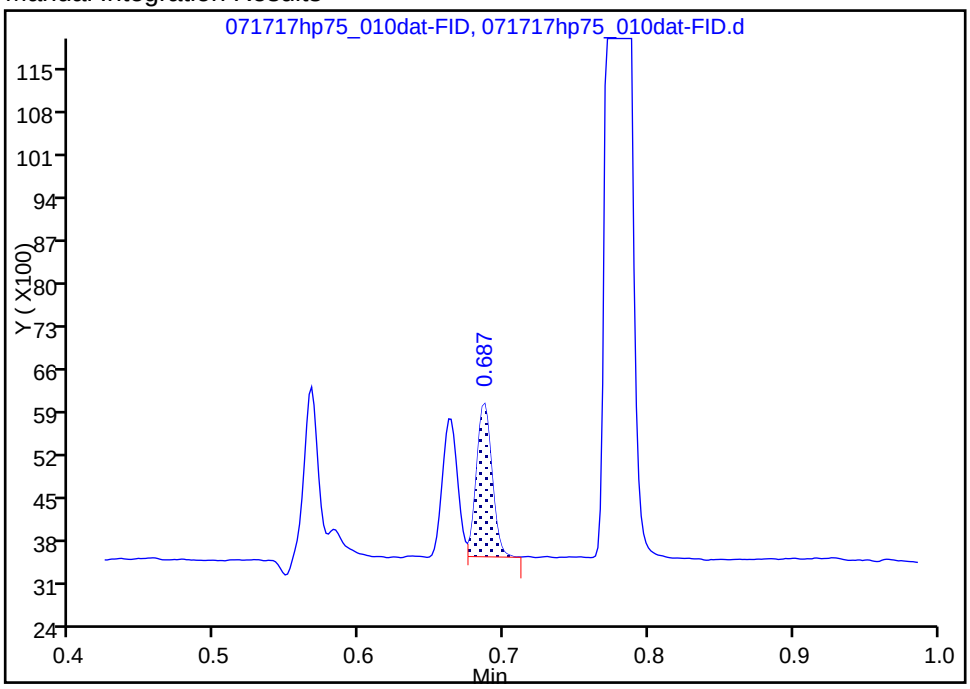
Processing Integration Results

RT: 0.69
Area: 2068
Amount: 7.220435
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 1852
Amount: 6.490227
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:09:53

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

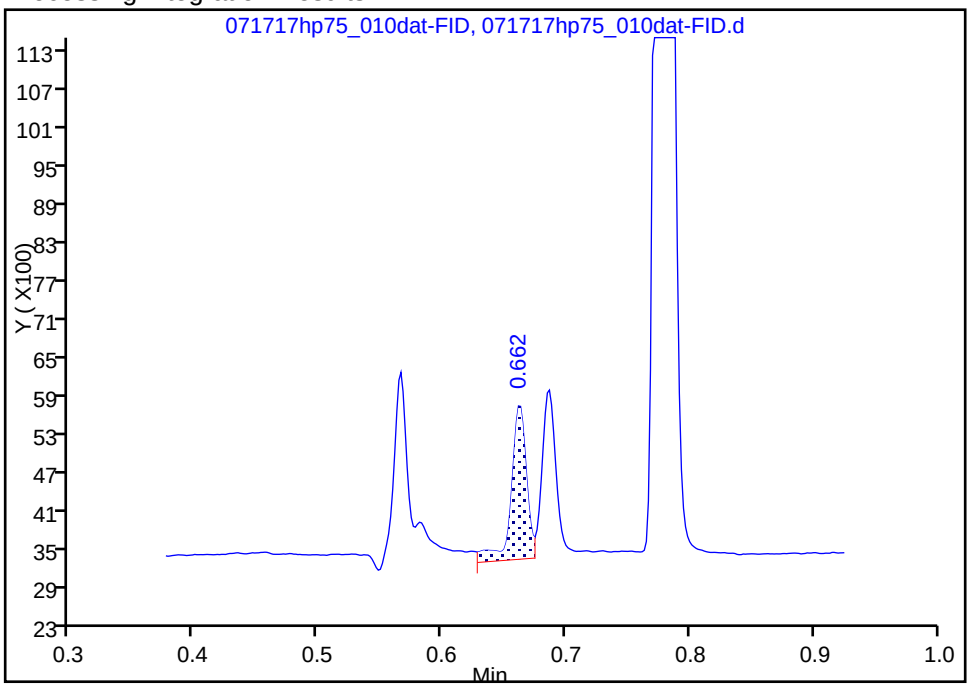
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d				
Injection Date:	17-Jul-2017 12:57:00	Instrument ID:	HP75		
Lims ID:	240-81987-D-2	Lab Sample ID:	490-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

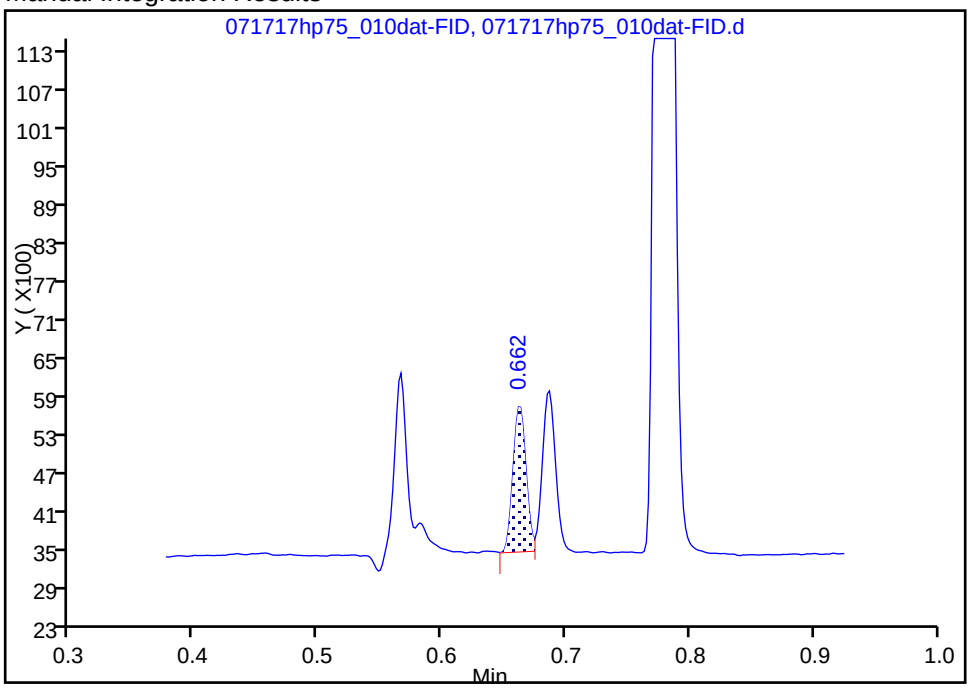
Processing Integration Results

RT: 0.66
Area: 2059
Amount: 8.393981
Amount Units: ug/l



Manual Integration Results

RT: 0.66
Area: 1659
Amount: 6.868433
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:09:50

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

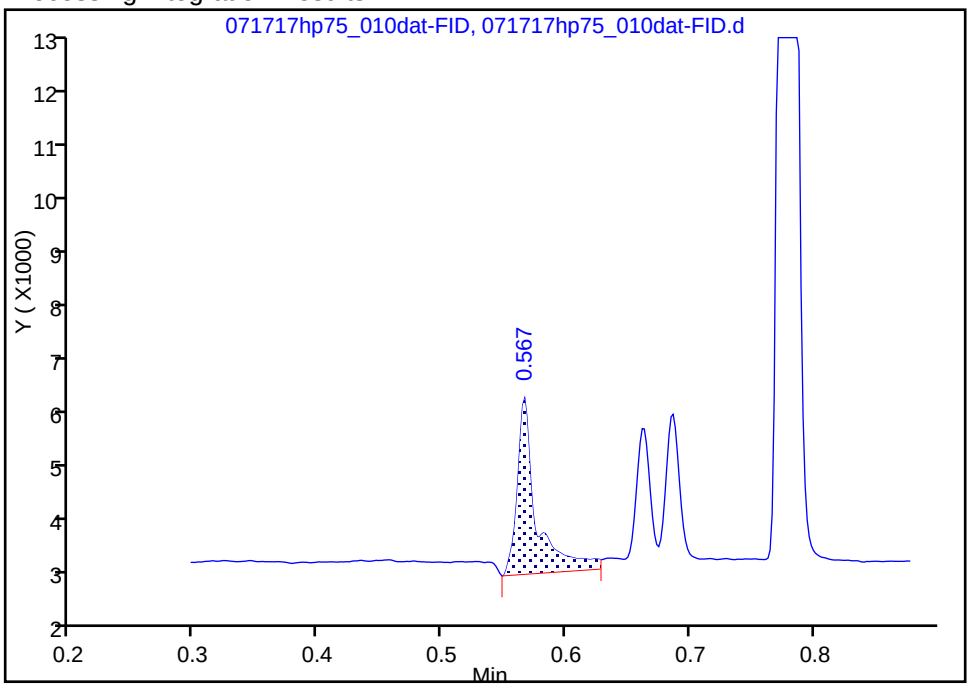
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_010dat-FID.d				
Injection Date:	17-Jul-2017 12:57:00	Instrument ID:	HP75		
Lims ID:	240-81987-D-2	Lab Sample ID:	490-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

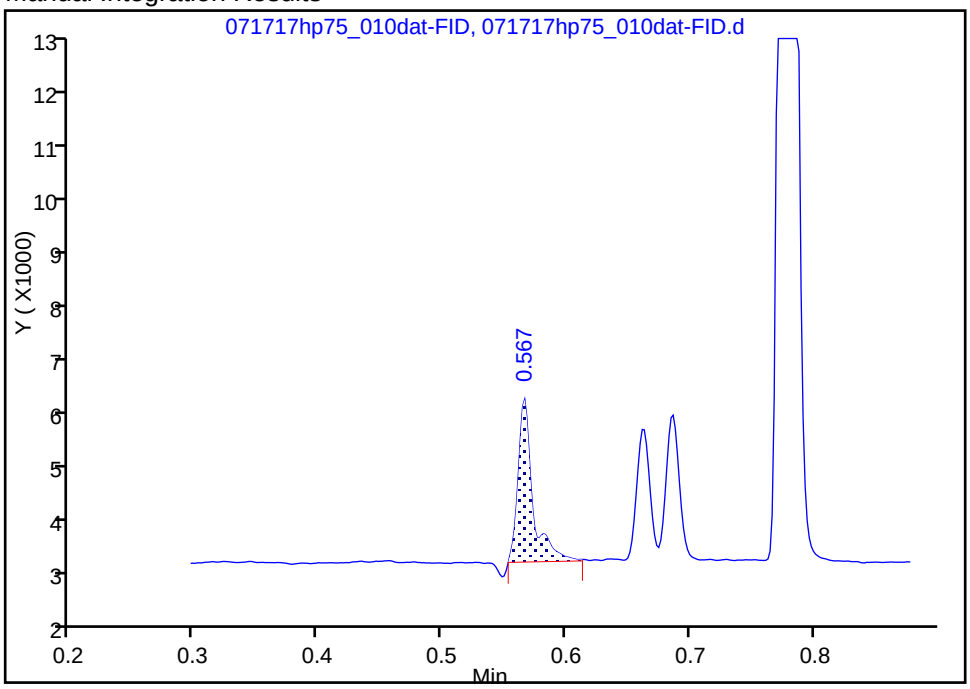
Processing Integration Results

RT: 0.57
Area: 3248
Amount: 11.174349
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 2305
Amount: 7.870496
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:09:44
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-9I-070617 Lab Sample ID: 240-81987-2

Matrix: Water Lab File ID: 071817hp75_008dat-FID.d

Analysis Method: RSK-175 Date Collected: 07/06/2017 12:40

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 11:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-86-2	Acetylene	0.0034	U	0.0050	0.0034

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_008dat-FID.d				
Lims ID:	240-81987-E-2				
Client ID:	SEMW-9I-070617				
Sample Type:	Client				
Inject. Date:	18-Jul-2017 11:06:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-E-2				
Misc. Info.:	240-81987-E-2				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				

First Level Reviewer: browna Date: 18-Jul-2017 11:11:57

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Methane					M
0.567	0.563	0.004	1071	3.55	M
2 Ethylene					M
0.662	0.660	0.002	519	2.52	M

QC Flag Legend

Review Flags

M - Manually Integrated

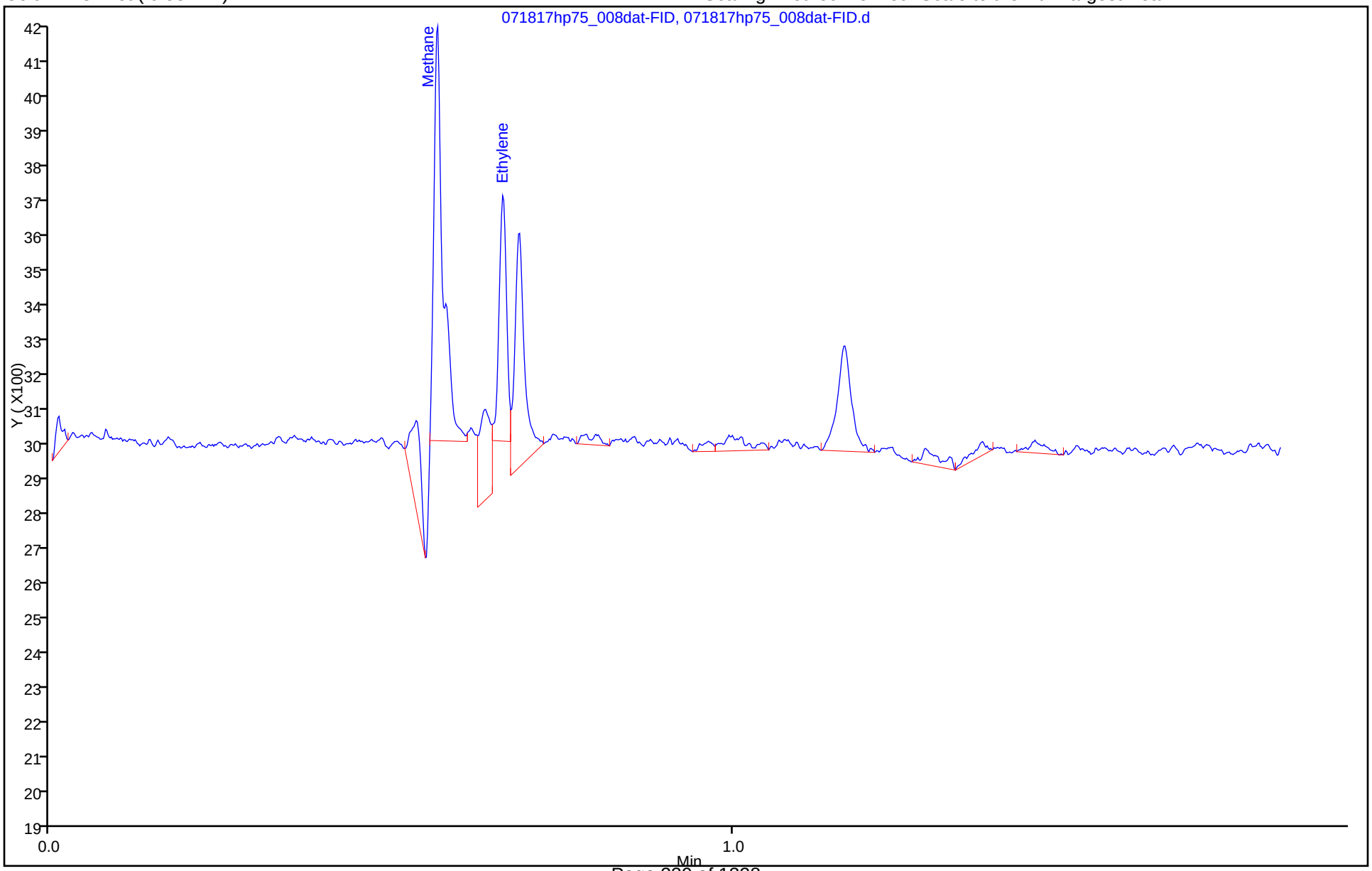
Report Date: 18-Jul-2017 11:49:02 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_008dat-FID.d

Injection Date:	18-Jul-2017 11:06:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	240-81987-E-2	Lab Sample ID:	490-81987-2	Worklist Smp#:	8
Client ID:	SEMW-9I-070617				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

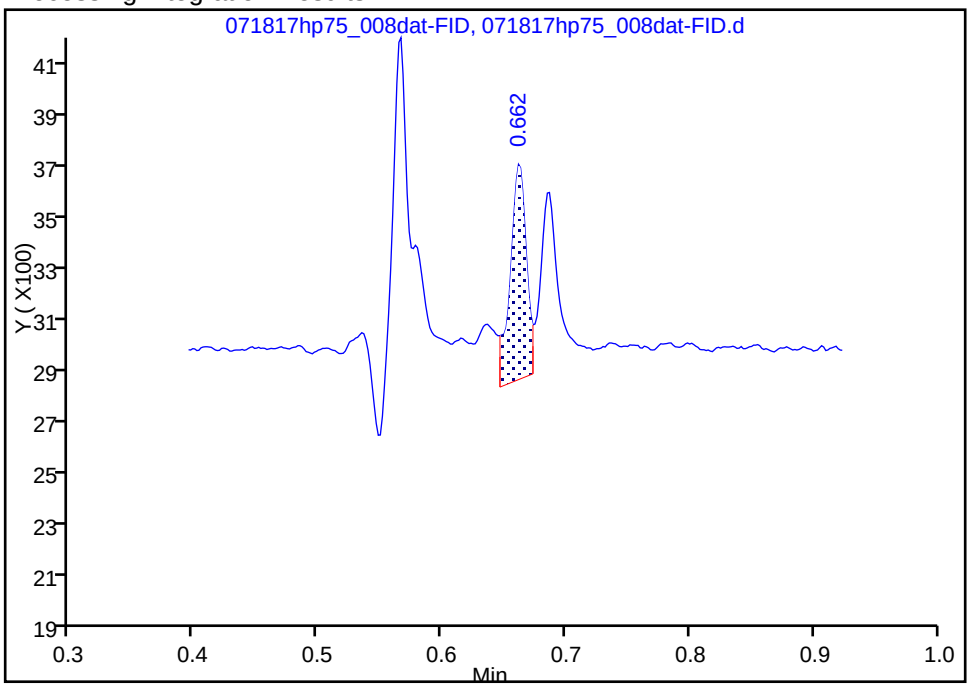
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_008dat-FID.d				
Injection Date:	18-Jul-2017 11:06:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-2	Lab Sample ID:	490-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

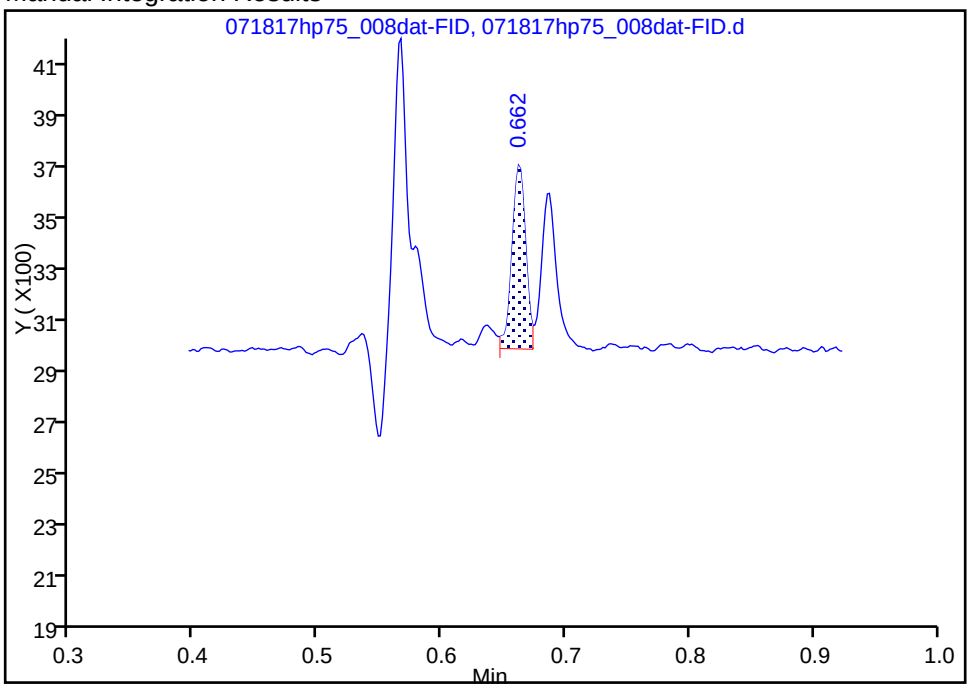
Processing Integration Results

RT: 0.66
Area: 711
Amount: 3.252882
Amount Units: ug/l



Manual Integration Results

RT: 0.66
Area: 519
Amount: 2.520618
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:11:27

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

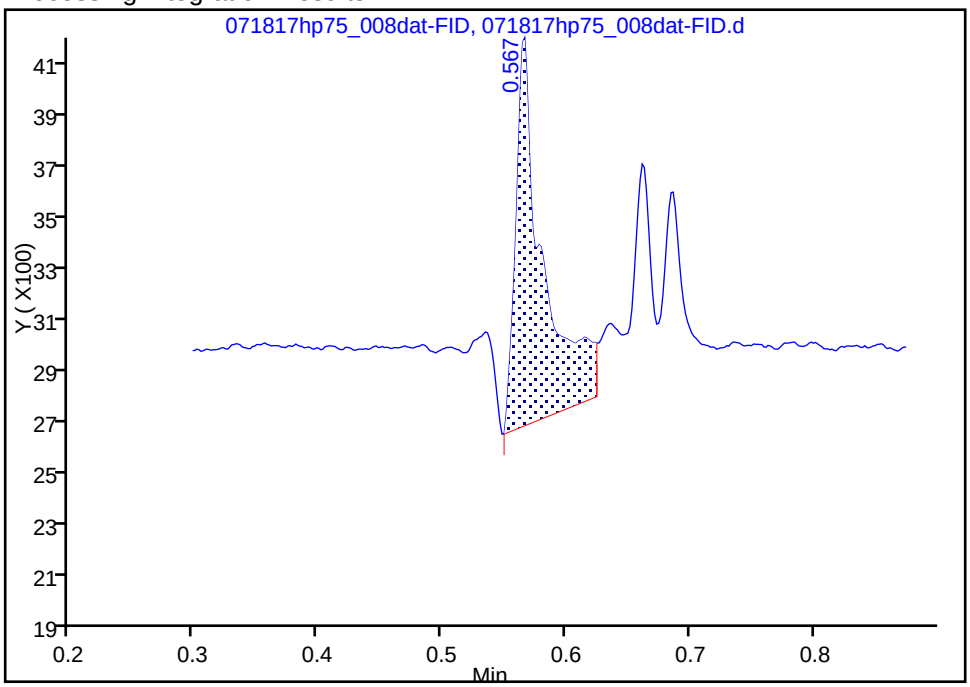
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_008dat-FID.d				
Injection Date:	18-Jul-2017 11:06:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-2	Lab Sample ID:	490-81987-2		
Client ID:	SEMW-9I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

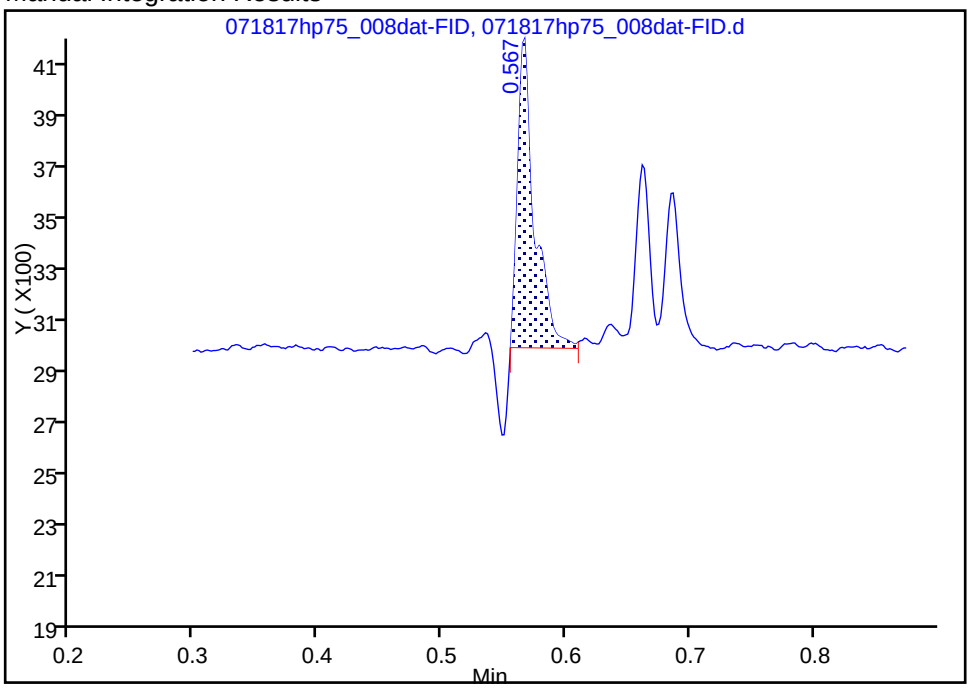
Processing Integration Results

RT: 0.57
Area: 2176
Amount: 7.418537
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 1071
Amount: 3.547108
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:11:20

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-8I-070617 Lab Sample ID: 240-81987-3

Matrix: Water Lab File ID: 071717hp75_011dat-FID.d

Analysis Method: RSK-175 Date Collected: 07/06/2017 13:55

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 13:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.037		0.0050	0.0027
106-97-8	Butane	0.0085	J	0.010	0.0058
74-85-1	Ethene	0.091		0.0050	0.0022
74-82-8	Methane	0.38		0.0050	0.0017
74-98-6	Propane	0.0075		0.0050	0.0033

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)	101		62-124

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_011dat-FID.d				
Lims ID:	240-81987-D-3				
Client ID:	SEMW-8I-070617				
Sample Type:	Client				
Inject. Date:	17-Jul-2017 13:03:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-D-3				
Misc. Info.:	240-81987-D-3				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 18:59:49	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK011				

First Level Reviewer: jacobsj Date: 17-Jul-2017 18:59:49

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1	Methane					
	0.570	0.563	0.007	108726	380.7	
2	Ethylene					
	0.667	0.660	0.007	23617	90.6	
3	Ethane					
	0.690	0.683	0.007	10968	37.3	
$ 4	Acetylene (Surr)					
	0.783	0.775	0.008	43021	468.1	
6	Propane					M
	1.168	1.153	0.015	2195	7.50	M
8	Butane					
	2.153	2.135	0.018	2334	8.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL

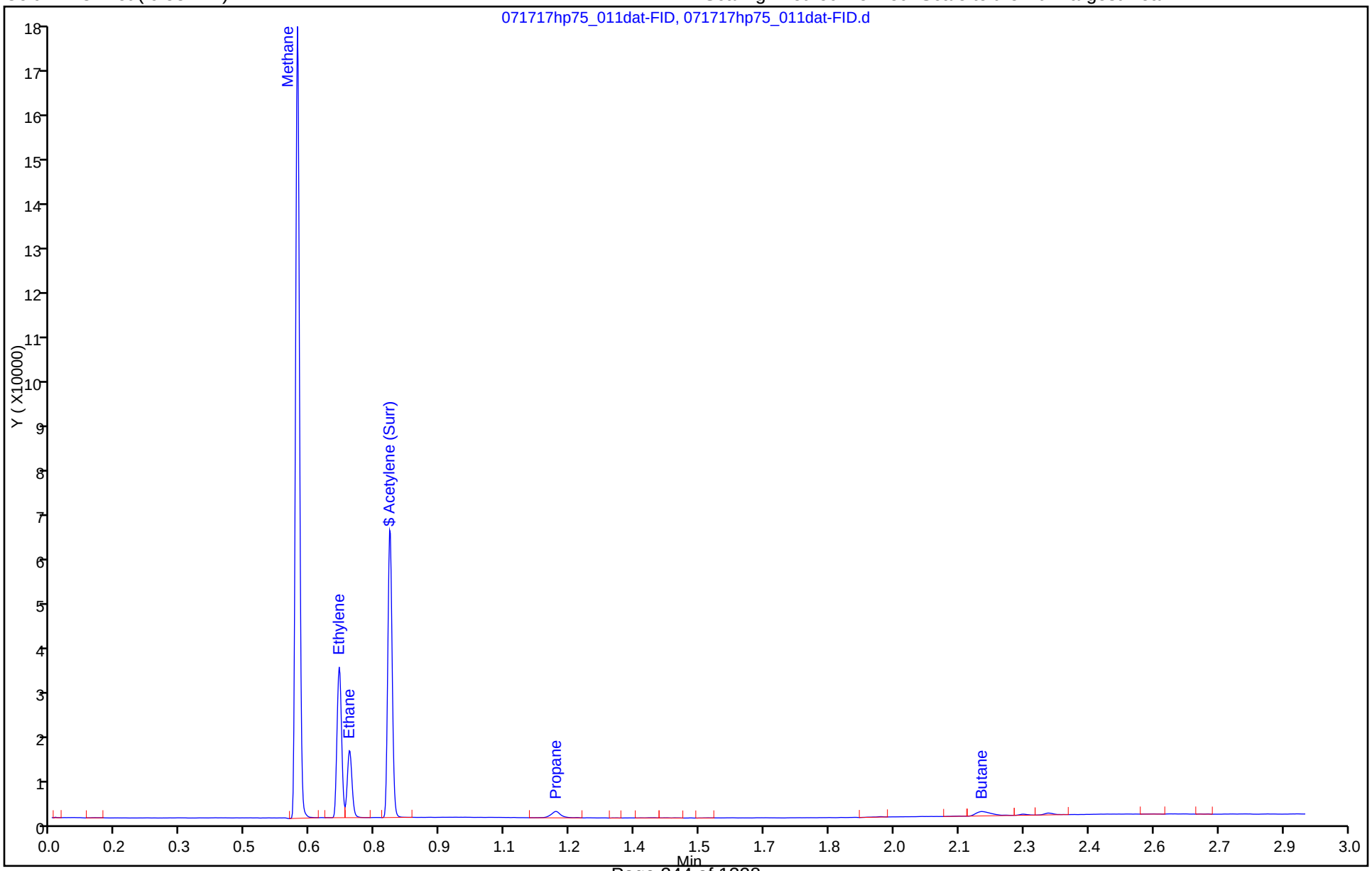
Report Date: 17-Jul-2017 19:00:35 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_011dat-FID.d

Injection Date:	17-Jul-2017 13:03:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	240-81987-D-3	Lab Sample ID:	490-81987-3	Worklist Smp#:	11
Client ID:	SEMW-8I-070617				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_011dat-FID.d				
Lims ID:	240-81987-D-3				
Client ID:	SEMW-8I-070617				
Sample Type:	Client				
Inject. Date:	17-Jul-2017 13:03:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-D-3				
Misc. Info.:	240-81987-D-3				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 18:59:49	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK011				

First Level Reviewer: jacobsj Date: 17-Jul-2017 18:59:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	462.9	468.1	101.14

Manual Integration/User Assign Peak Report

TestAmerica Nashville

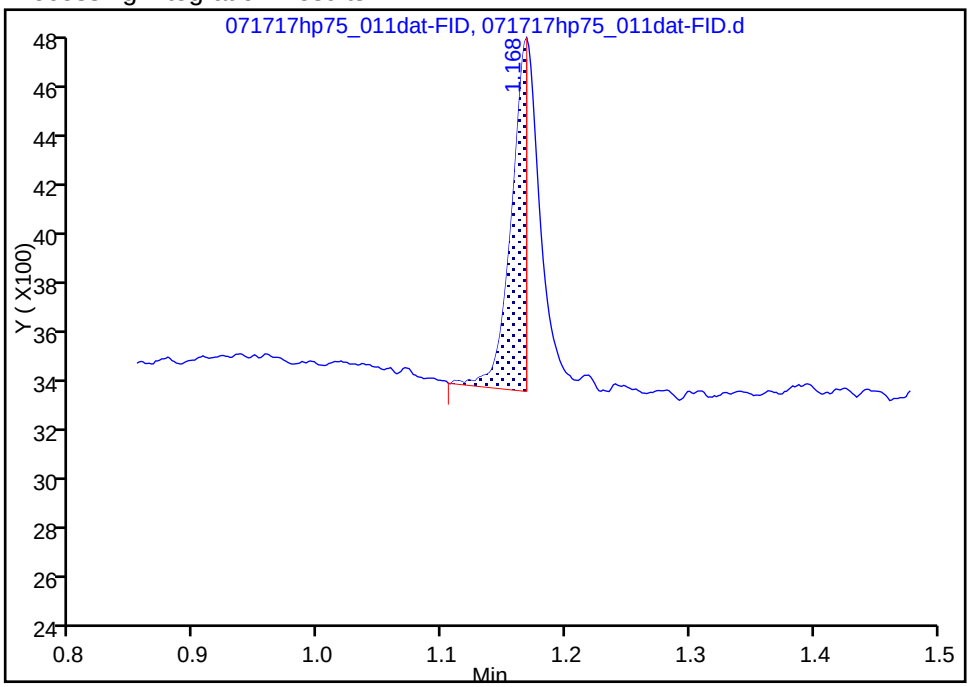
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_011dat-FID.d				
Injection Date:	17-Jul-2017 13:03:00	Instrument ID:	HP75		
Lims ID:	240-81987-D-3	Lab Sample ID:	490-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

6 Propane, CAS: 74-98-6

Signal: 1

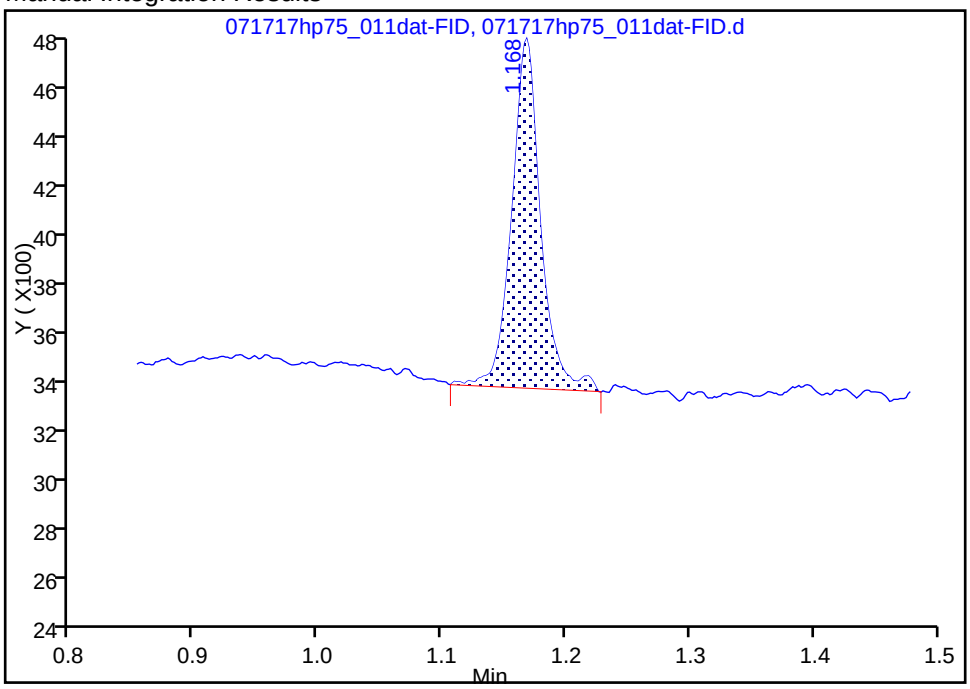
RT: 1.17
Area: 1139
Amount: 4.005656
Amount Units: ug/l

Processing Integration Results



RT: 1.17
Area: 2195
Amount: 7.501900
Amount Units: ug/l

Manual Integration Results



Reviewer: jacobsj, 17-Jul-2017 18:59:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: SEMW-8I-070617 Lab Sample ID: 240-81987-3

Matrix: Water Lab File ID: 071817hp75_009dat-FID.d

Analysis Method: RSK-175 Date Collected: 07/06/2017 13:55

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 11:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-86-2	Acetylene	0.0034	U	0.0050	0.0034

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Lims ID:	240-81987-E-3				
Client ID:	SEMW-8I-070617				
Sample Type:	Client				
Inject. Date:	18-Jul-2017 11:09:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-E-3				
Misc. Info.:	240-81987-E-3				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				

First Level Reviewer: browna Date: 18-Jul-2017 11:23:13

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
	1 Methane					M
	0.570	0.563	0.007	112610	394.3	M
	2 Ethylene					M
	0.667	0.660	0.007	22942	88.0	M
	3 Ethane					M
	0.692	0.683	0.009	10767	36.6	M
$	4 Acetylene (Surr)					M
	0.785	0.775	0.010	2927	32.0	M
	6 Propane					
	1.170	1.153	0.017	2198	7.51	

QC Flag Legend

Review Flags

M - Manually Integrated

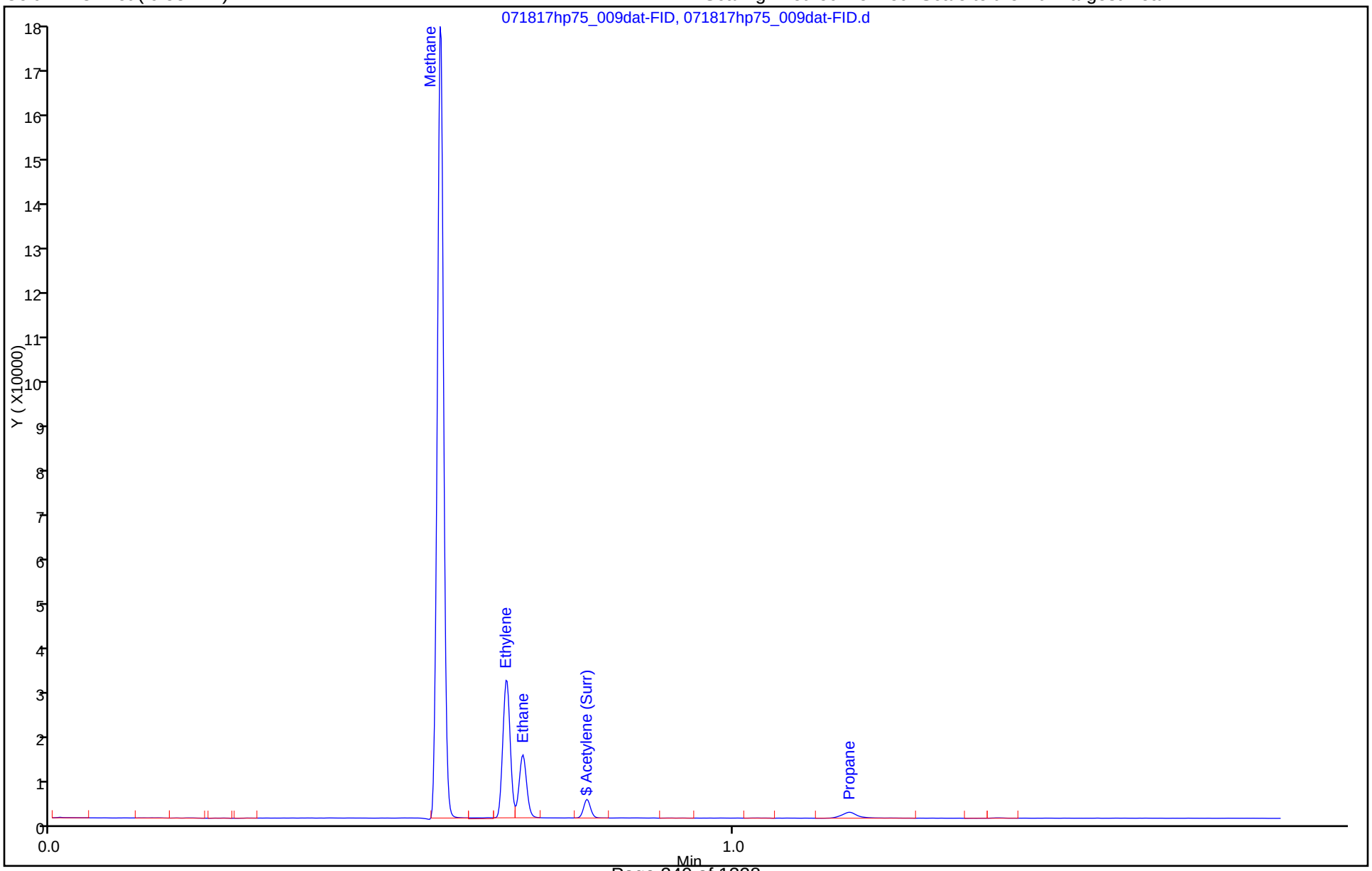
Report Date: 18-Jul-2017 11:49:02 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d

Injection Date:	18-Jul-2017 11:09:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	240-81987-E-3	Lab Sample ID:	490-81987-3	Worklist Smp#:	9
Client ID:	SEMW-8I-070617				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Lims ID:	240-81987-E-3				
Client ID:	SEMW-8I-070617				
Sample Type:	Client				
Inject. Date:	18-Jul-2017 11:09:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-81987-E-3				
Misc. Info.:	240-81987-E-3				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				

First Level Reviewer: browna Date: 18-Jul-2017 11:23:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	0	32.0	0.00

Manual Integration/User Assign Peak Report

TestAmerica Nashville

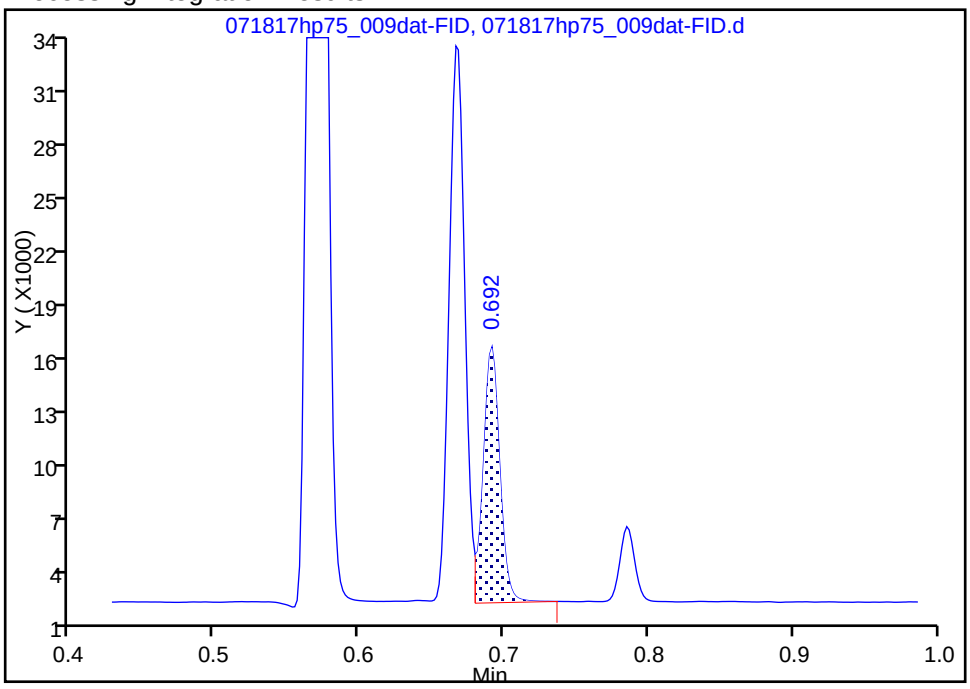
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Injection Date:	18-Jul-2017 11:09:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-3	Lab Sample ID:	490-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

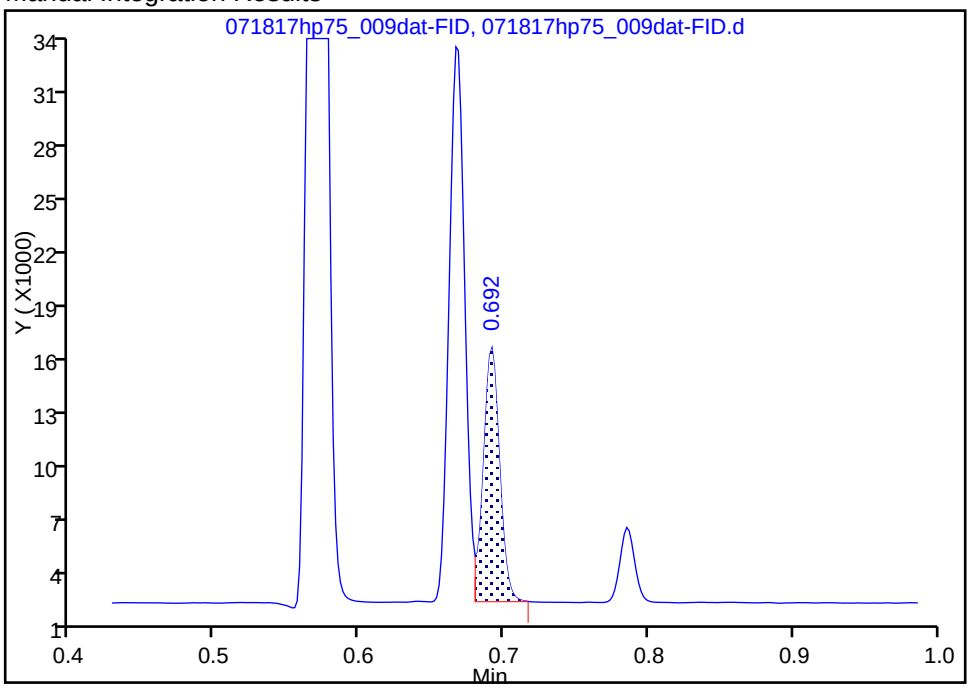
Processing Integration Results

RT: 0.69
Area: 11018
Amount: 37.476720
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 10767
Amount: 36.628192
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:14:55

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

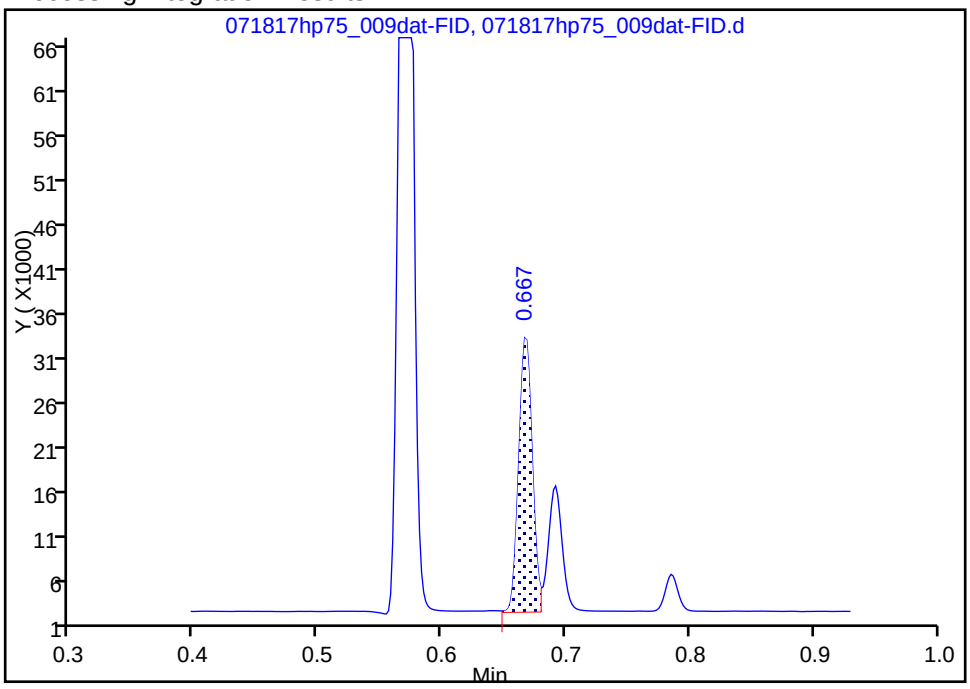
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Injection Date:	18-Jul-2017 11:09:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-3	Lab Sample ID:	490-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

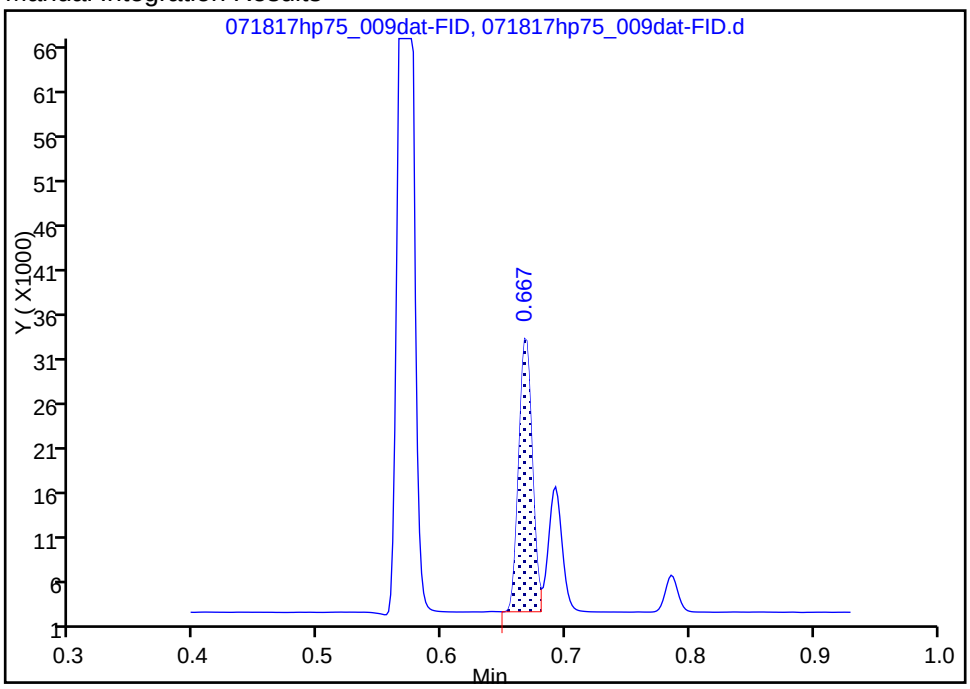
Processing Integration Results

RT: 0.67
Area: 23224
Amount: 89.114584
Amount Units: ug/l



Manual Integration Results

RT: 0.67
Area: 22942
Amount: 88.039072
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:14:44

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

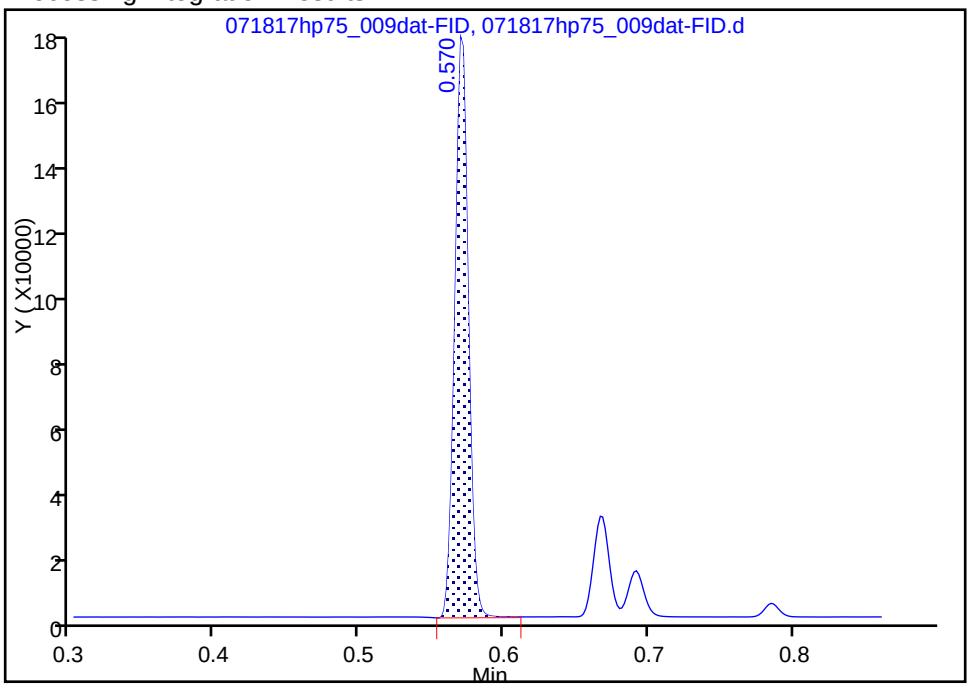
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Injection Date:	18-Jul-2017 11:09:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-3	Lab Sample ID:	490-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

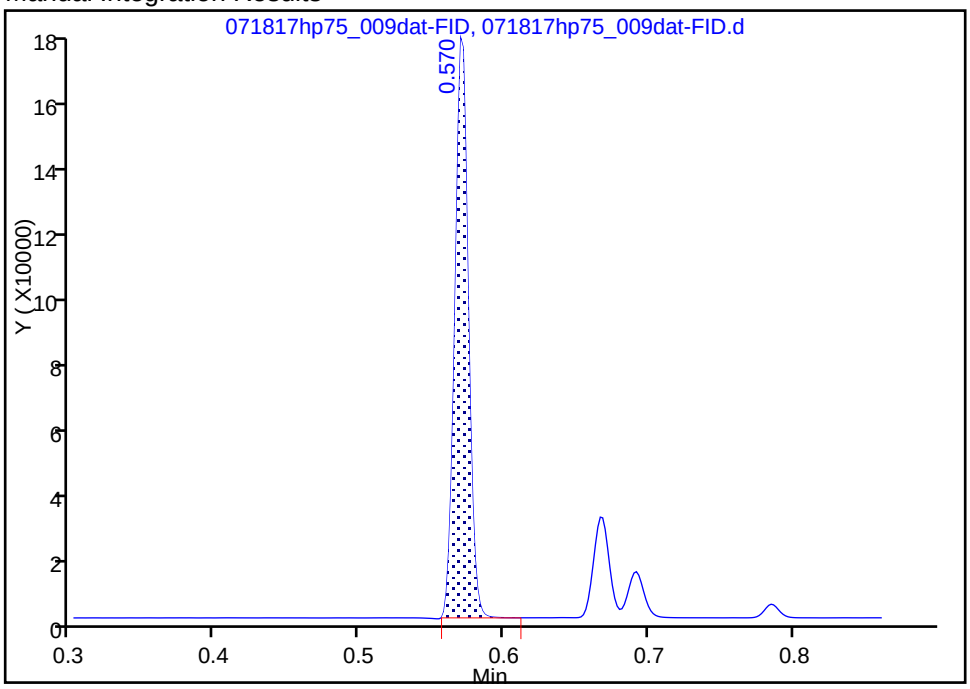
Processing Integration Results

RT: 0.57
Area: 113386
Amount: 397.0490
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 112610
Amount: 394.3302
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:14:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

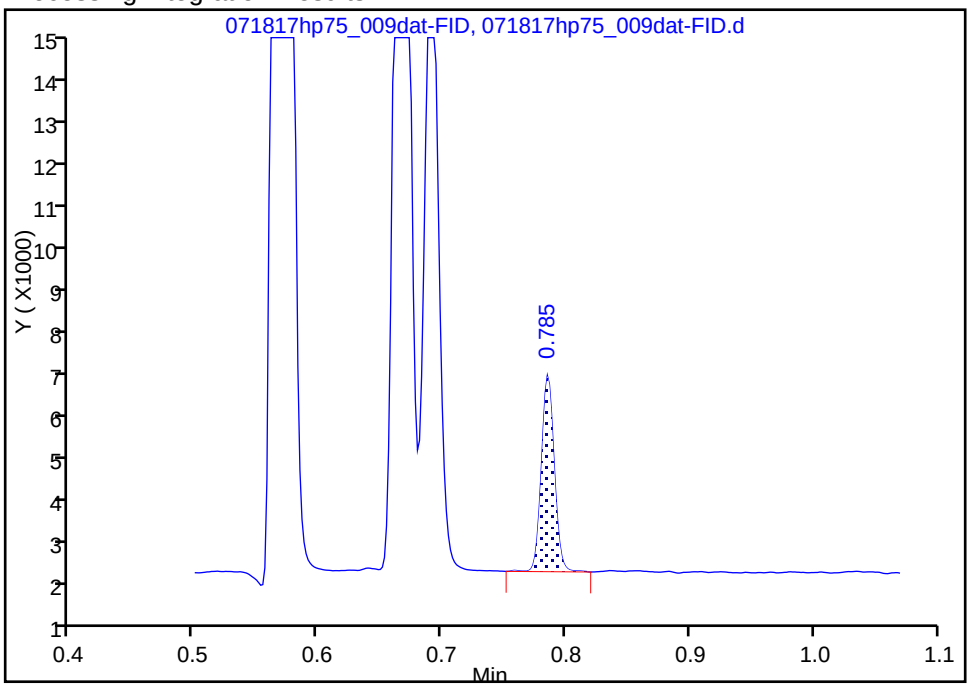
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_009dat-FID.d				
Injection Date:	18-Jul-2017 11:09:00	Instrument ID:	HP75		
Lims ID:	240-81987-E-3	Lab Sample ID:	490-81987-3		
Client ID:	SEMW-8I-070617				
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

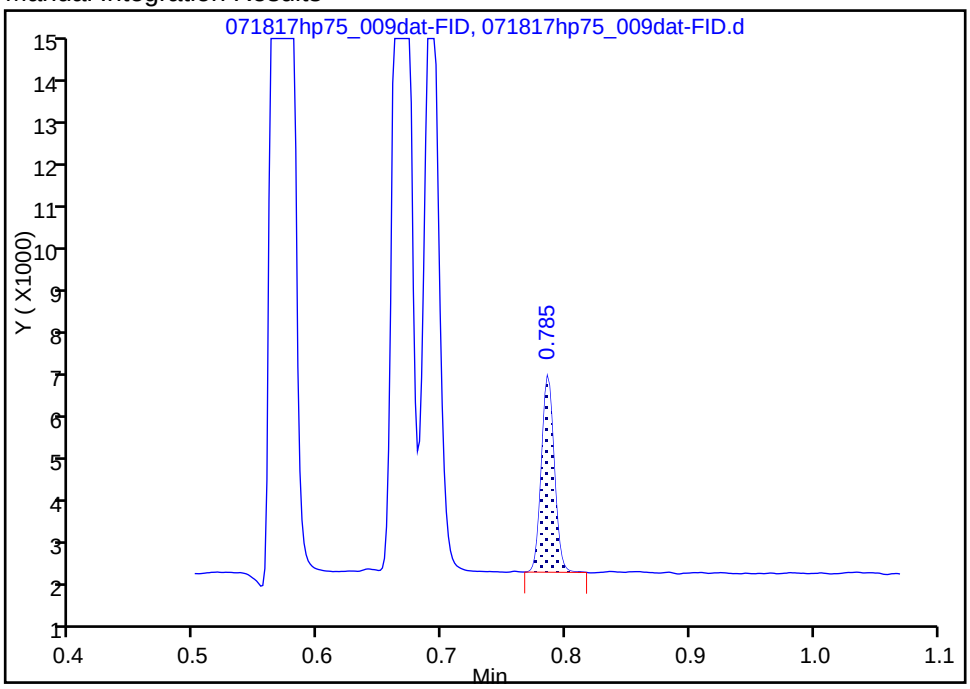
Processing Integration Results

RT: 0.78
Area: 2961
Amount: 32.339546
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 2927
Amount: 31.969683
Amount Units: ug/l



Reviewer: browna, 18-Jul-2017 11:15:11
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443329

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66682

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443329/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443329/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443329/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443329/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443329/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443329/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443329/9	070717hp75_009dat-FID.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Methane	0.567	0.567	0.565	0.563	0.568	0.565	0.568				0.538 - 0.598	0.566
Ethene	0.663	0.665	0.663	0.662	0.667	0.663	0.667				0.637 - 0.697	0.664
Ethane	0.687	0.688	0.687	0.685	0.690	0.687	0.690				0.660 - 0.720	0.688
Propane	1.163	1.163	1.162	1.162	1.165	1.162	1.163				1.135 - 1.195	1.163
Propane, 2-methyl	1.935	1.945	1.937	1.952	1.942	1.947	1.950				1.912 - 1.972	1.944
Butane	2.155	2.167	2.153	2.170	2.157	2.163	2.165				2.127 - 2.187	2.161
Acetylene (Surr)	0.780	0.782	0.780	0.778	0.783	0.780	0.783				0.753 - 0.813	0.781

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443329

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66682

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443329/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443329/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443329/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443329/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443329/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443329/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443329/9	070717hp75_009dat-FID.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Methane	309.02 273.49	340.41 275.34	277.77 278.07	308.65	Lin2	58.5691731	285.424316							0.9940		0.9900
Ethene	212.64 250.17	221.77 261.08	237.96 265.87	294.63	Lin1	-141.90795	262.200719							0.9990		0.9900
Ethane	269.38 285.44	283.60 285.58	283.70 288.68	333.45	Lin2	-67.850196	295.806306							0.9960		0.9900
Propane	282.33 283.88	295.04 294.77	284.60 296.81	347.71	Lin2	-70.861971	302.038401							0.9940		0.9900
Propane, 2-methyl	254.51 286.01	287.65 294.86	287.09 296.07	352.27	Lin2	-237.56313	304.614626							0.9930		0.9900
Butane	252.94 289.62	282.45 306.59	279.21 307.92	358.71	Lin2	-286.73919	309.510288							0.9920		0.9900
Acetylene (Surr)	87.716 91.231	87.716 93.043	90.006 94.010	91.644	Lin2	-11.845741	91.9260202							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443329

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66682

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443329/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443329/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443329/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443329/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443329/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443329/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443329/9	070717hp75_009dat-FID.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methane	Lin2	443 153500	976 194888	7964	17207	78414	1.43 558	2.87 701	28.7	55.8	287
Ethene	Lin1	524 250203	1093 320305	11728	28235	123300	2.46 958	4.93 1205	49.3	95.8	493
Ethane	Lin2	710 292718	1495 371983	14955	34179	150469	2.64 1025	5.27 1289	52.7	103	527
Propane	Lin2	1089 442150	2276 559702	21955	52157	218993	3.86 1500	7.71 1886	77.1	150	771
Propane, 2-methyl	Lin2	1298 584806	2934 738205	29283	69866	291734	5.10 1983	10.2 2493	102	198	1020
Butane	Lin2	1290 608066	2881 767746	28479	71145	295412	5.10 1983	10.2 2493	102	198	1020
Acetylene (Surr)	Lin2	203 83739	406 106366	4166	8248	42227	2.31 900	4.63 1131	46.3	90.0	463

Curve Type Legend:

Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_002dat-FID.d
Lims ID: std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 07-Jul-2017 11:51:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: std1
Misc. Info.: std1
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:17 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 12:01:35

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.567	0.568	-0.001	443	1.43	1.35	M
	2 Ethylene						
	0.663	0.667	-0.004	524	2.46	2.54	
	3 Ethane						
	0.687	0.690	-0.003	710	2.64	2.63	
$	4 Acetylene (Surr)						
	0.780	0.783	-0.003	203	2.31	2.34	
	6 Propane						
	1.163	1.165	-0.002	1089	3.86	3.84	
	7 Propane, 2-methyl						M
	1.935	1.942	-0.007	1298	5.10	5.04	M
	8 Butane						
	2.155	2.157	-0.002	1290	5.10	5.09	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 4.50 Units: uL
RSK_8COMP_00007 Amount Added: 4.50 Units: uL

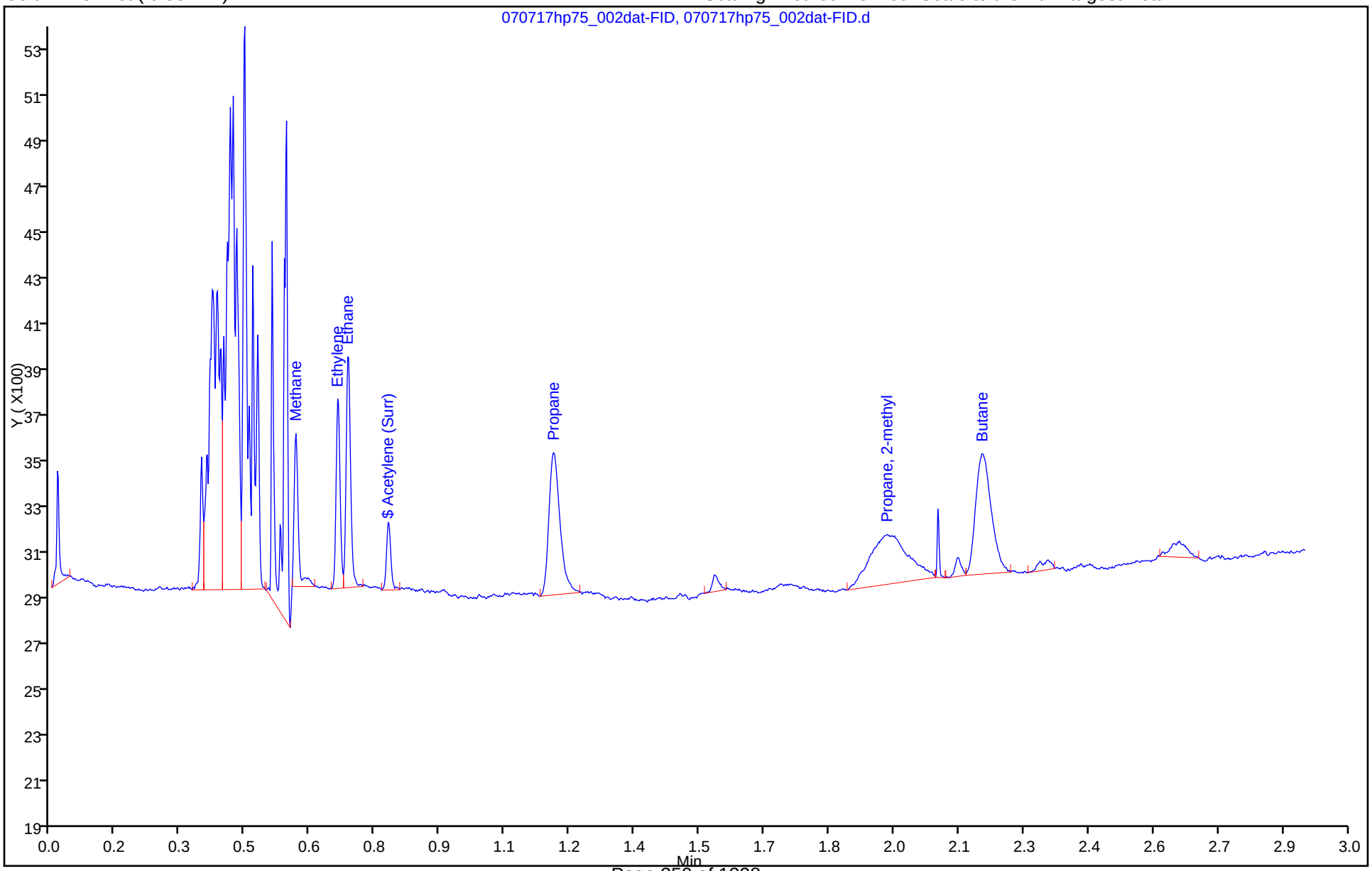
Report Date: 07-Jul-2017 15:11:17 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_002dat-FID.d

Injection Date:	07-Jul-2017 11:51:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std1			Worklist Smp#:	2
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

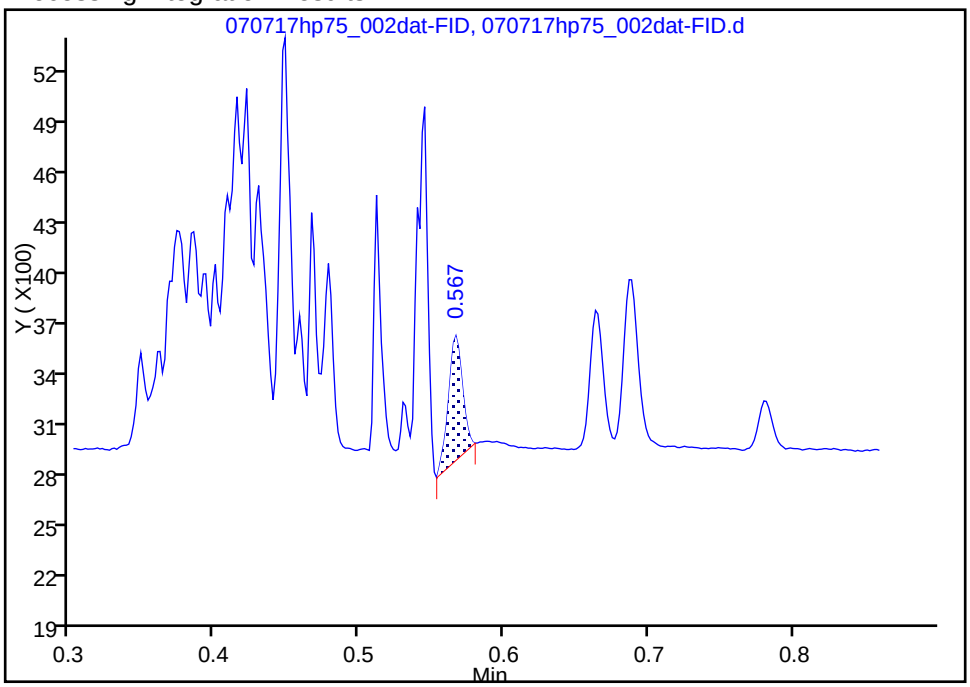
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_002dat-FID.d				
Injection Date:	07-Jul-2017 11:51:00	Instrument ID:	HP75		
Lims ID:	std1				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

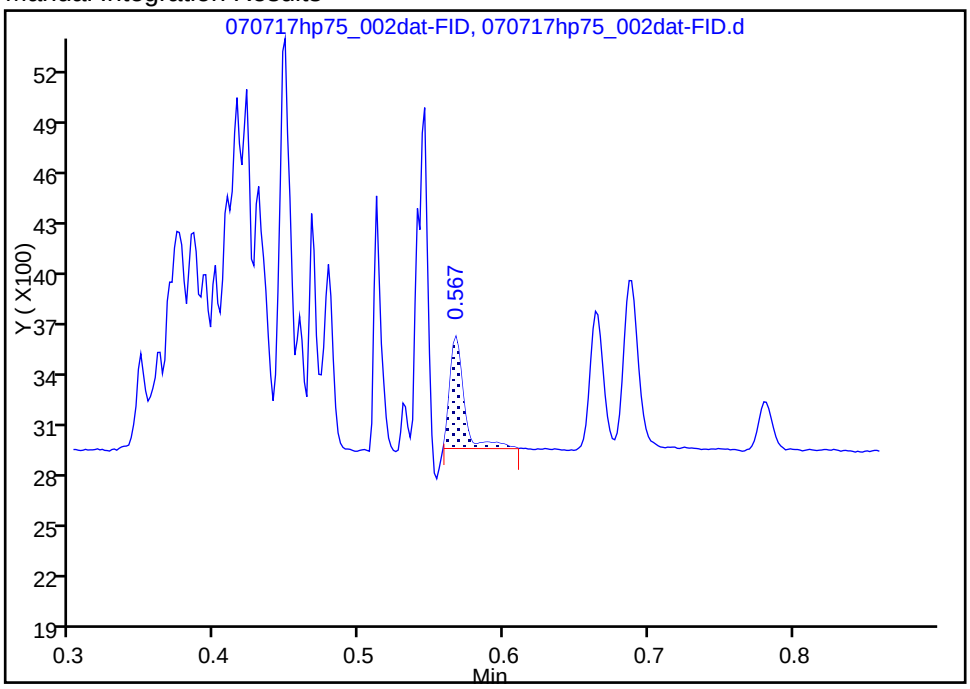
Processing Integration Results

RT: 0.57
Area: 492
Amount: 1.250073
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 443
Amount: 1.346875
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:27:01

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

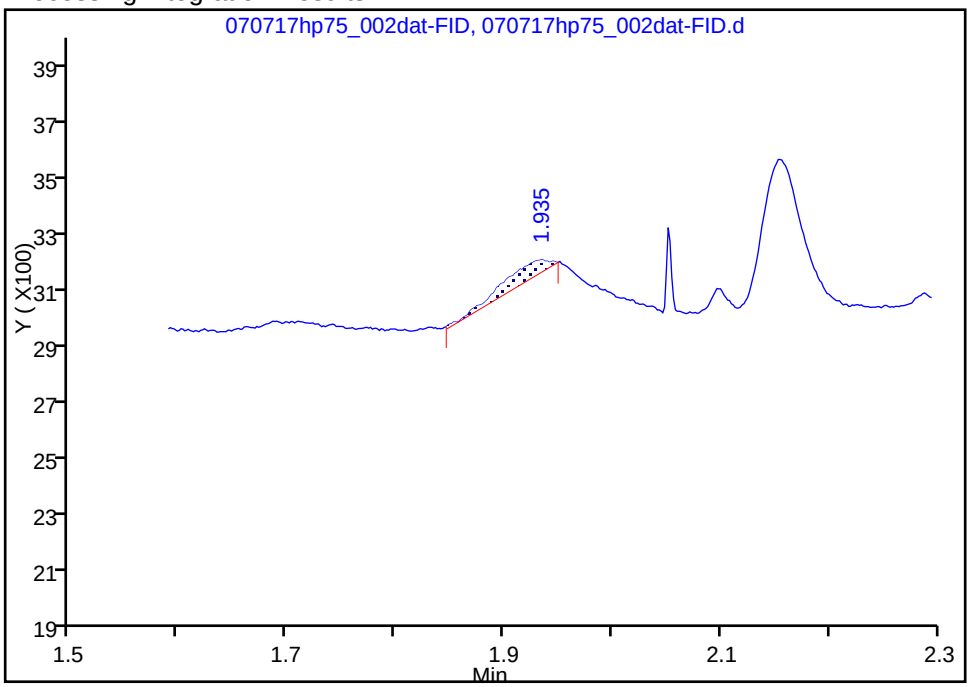
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_002dat-FID.d				
Injection Date:	07-Jul-2017 11:51:00	Instrument ID:	HP75		
Lims ID:	std1				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

7 Propane, 2-methyl, CAS: 75-28-5

Signal: 1

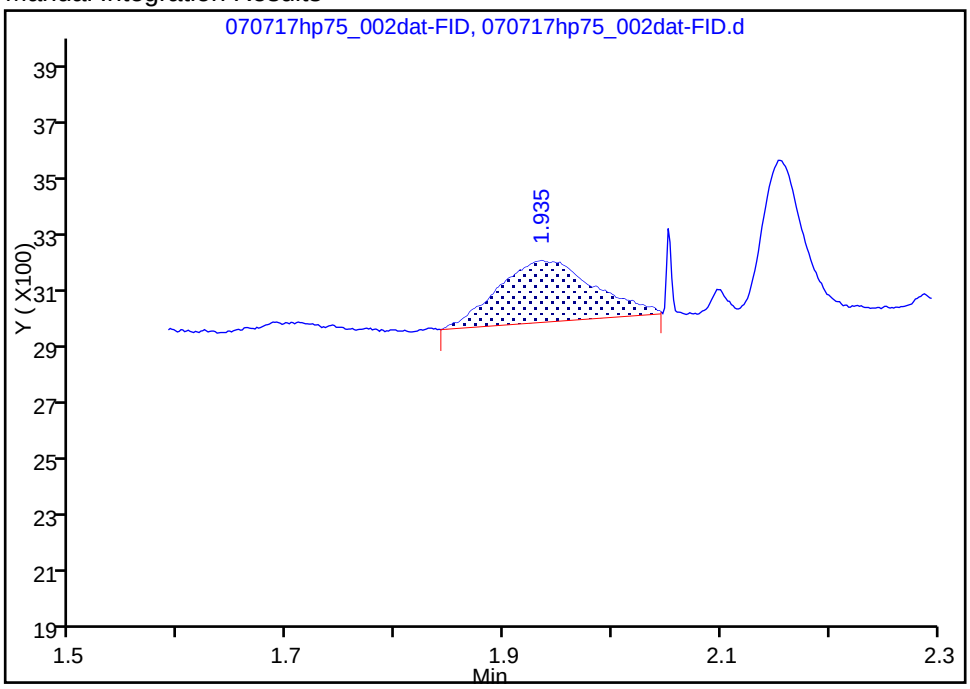
Processing Integration Results

RT: 1.93
Area: 175
Amount: 0.816663
Amount Units: ug/l



Manual Integration Results

RT: 1.93
Area: 1298
Amount: 5.041003
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:27:26

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d
Lims ID: std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 07-Jul-2017 11:57:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: std2
Misc. Info.: std2
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:18 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 12:08:34

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.567	0.568	-0.001	976	2.87	3.21	M
	2 Ethylene						M
	0.665	0.667	-0.002	1093	4.93	4.71	M
	3 Ethane						M
	0.688	0.690	-0.002	1495	5.27	5.28	M
$	4 Acetylene (Surr)						M
	0.782	0.783	-0.001	406	4.63	4.55	M
	6 Propane						
	1.163	1.165	-0.002	2276	7.71	7.77	
	7 Propane, 2-methyl						M
	1.945	1.942	0.003	2934	10.2	10.4	M
	8 Butane						
	2.167	2.157	0.010	2881	10.2	10.2	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 9.00 Units: uL
RSK_8COMP_00007 Amount Added: 9.00 Units: uL

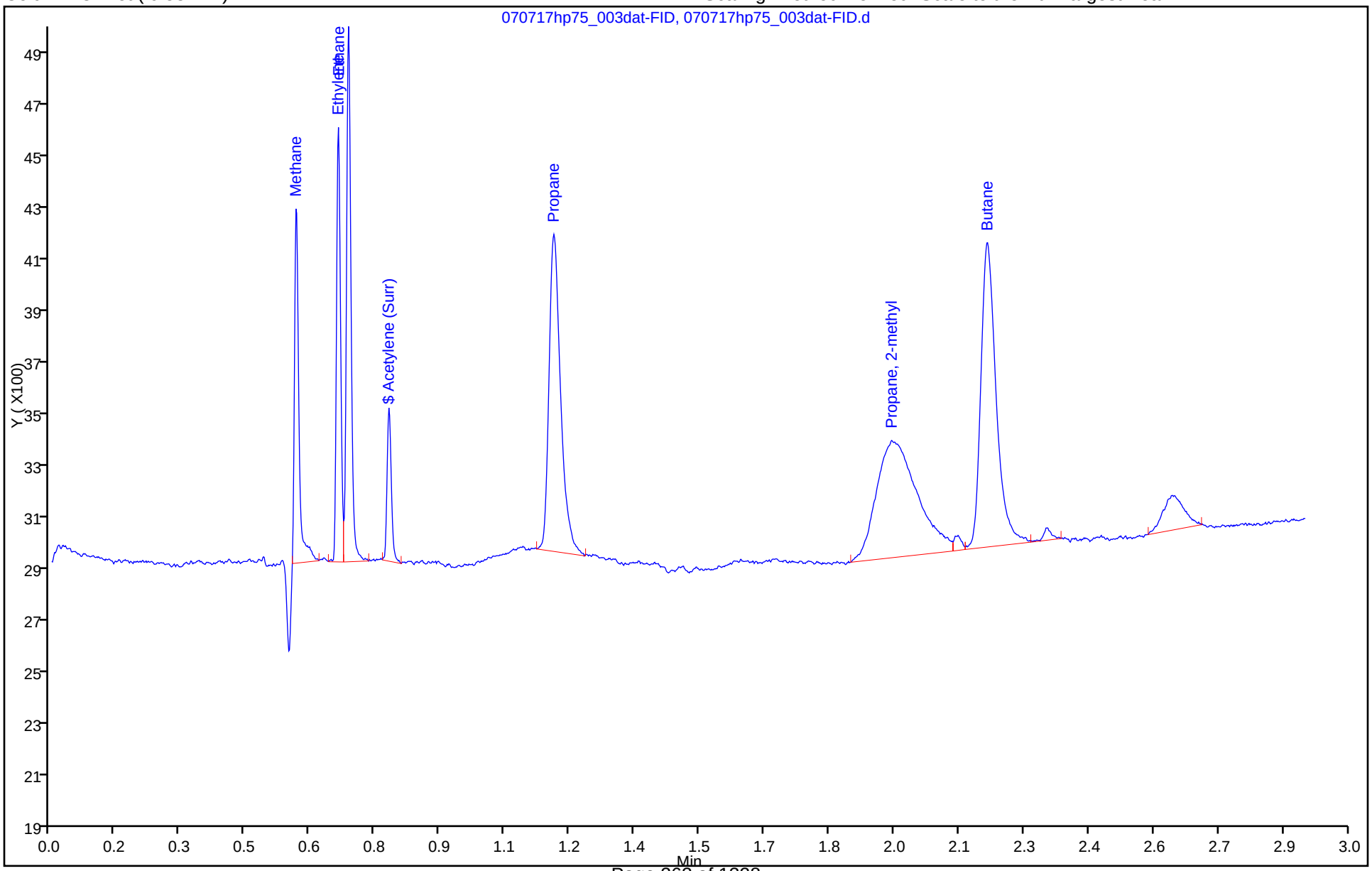
Report Date: 07-Jul-2017 15:11:18 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d

Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std2			Worklist Smp#:	3
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

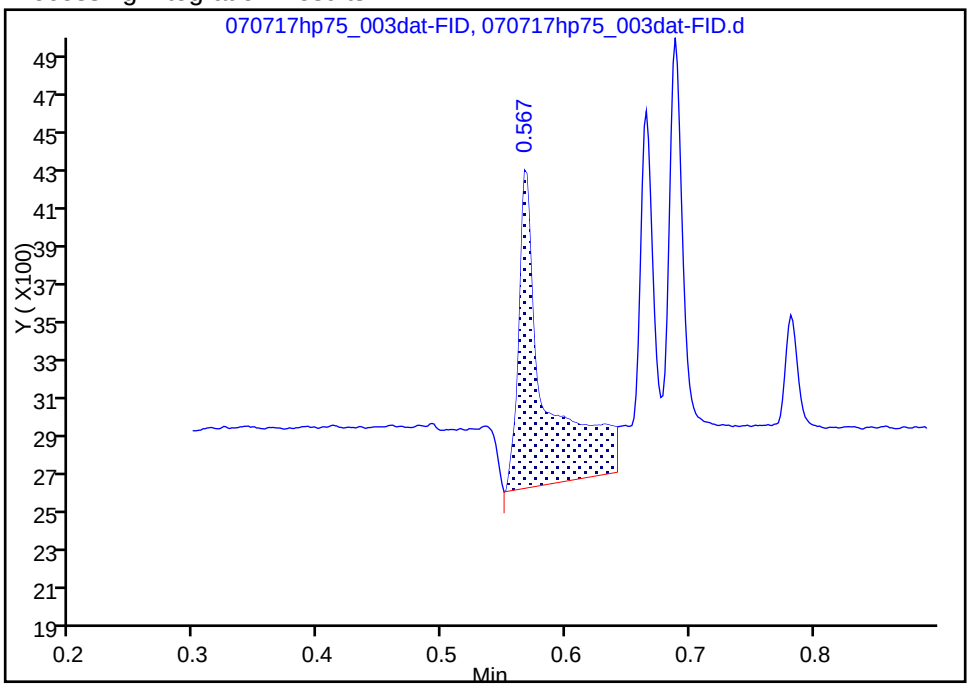
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

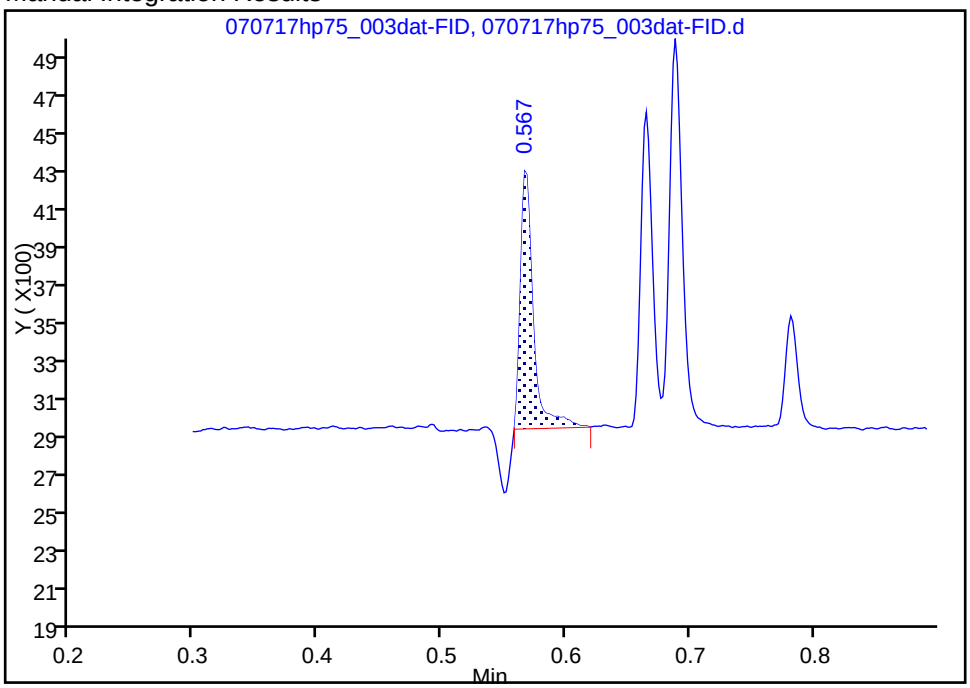
Processing Integration Results

RT: 0.57
Area: 2471
Amount: 6.516223
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 976
Amount: 3.214270
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:27:50
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

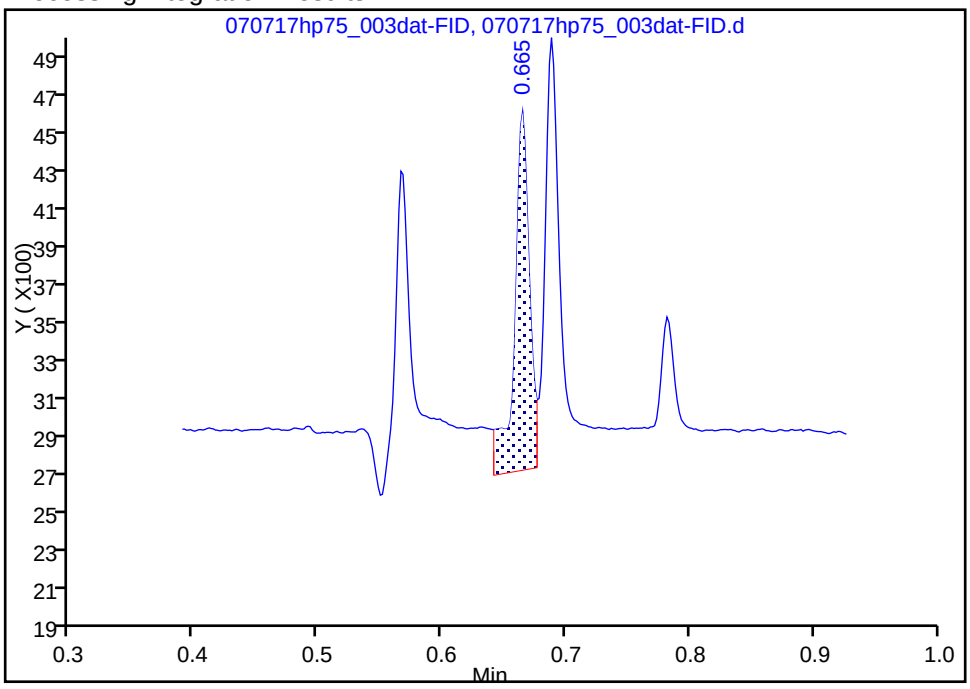
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

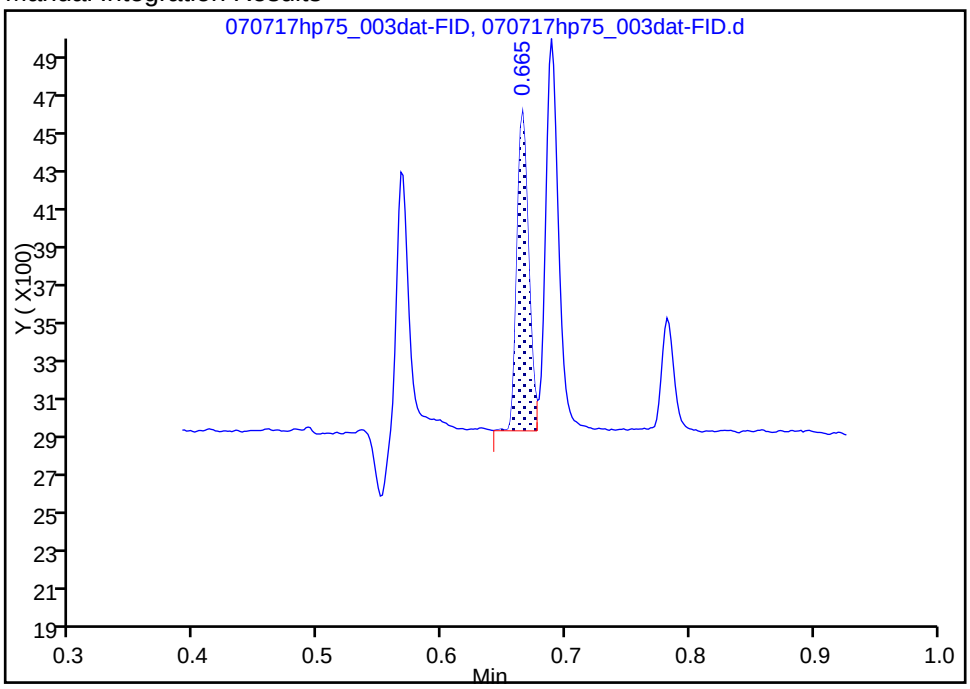
Processing Integration Results

RT: 0.66
Area: 1550
Amount: 6.705013
Amount Units: ug/l



Manual Integration Results

RT: 0.66
Area: 1093
Amount: 4.709781
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:28:01
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

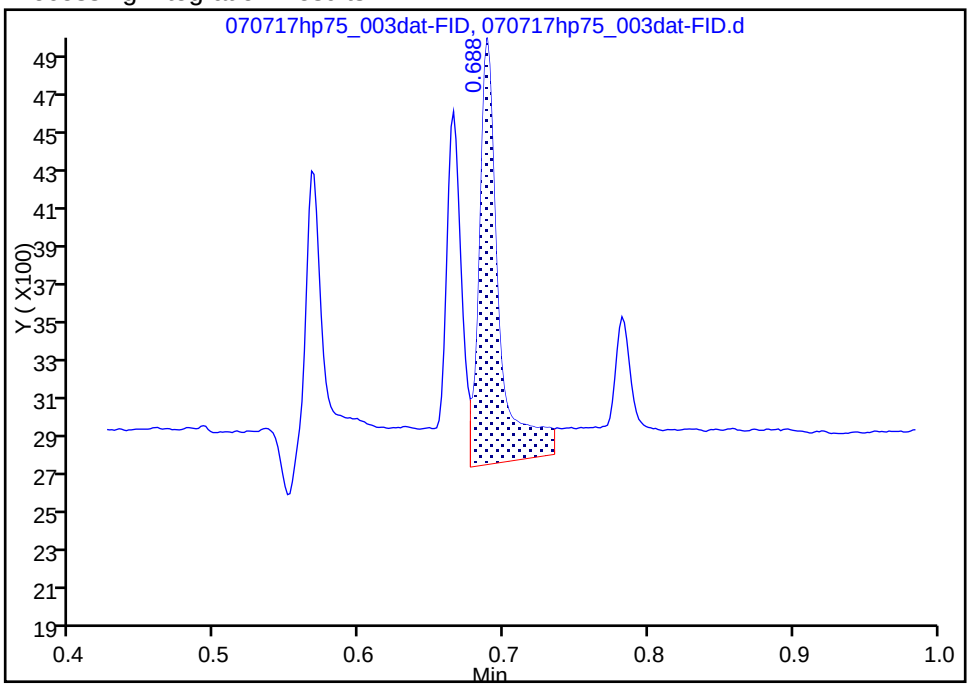
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

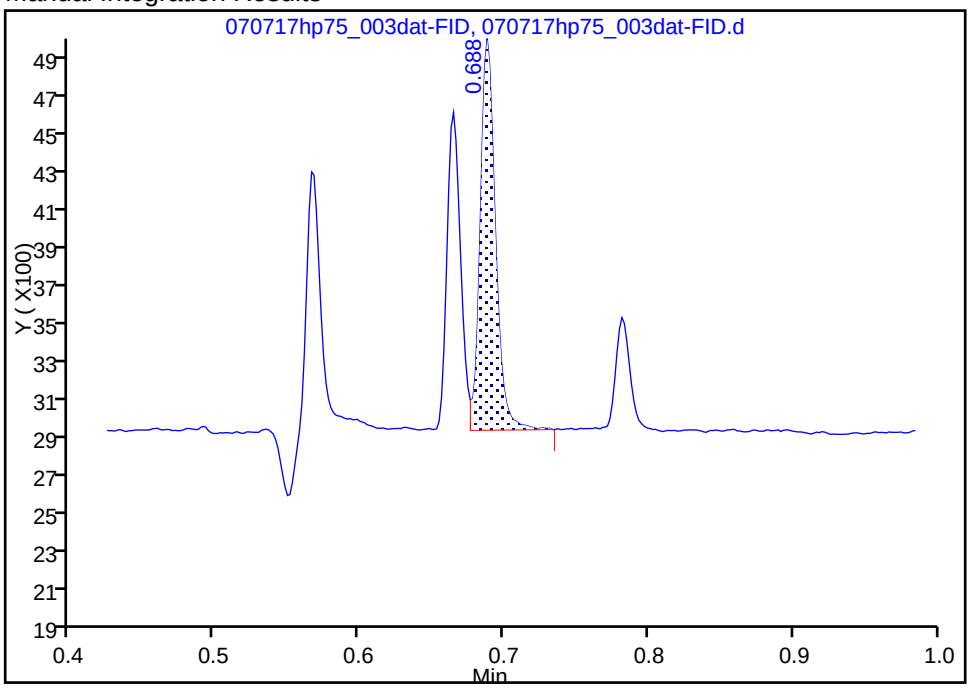
Processing Integration Results

RT: 0.69
Area: 2074
Amount: 7.412674
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 1495
Amount: 5.283357
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:28:05
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

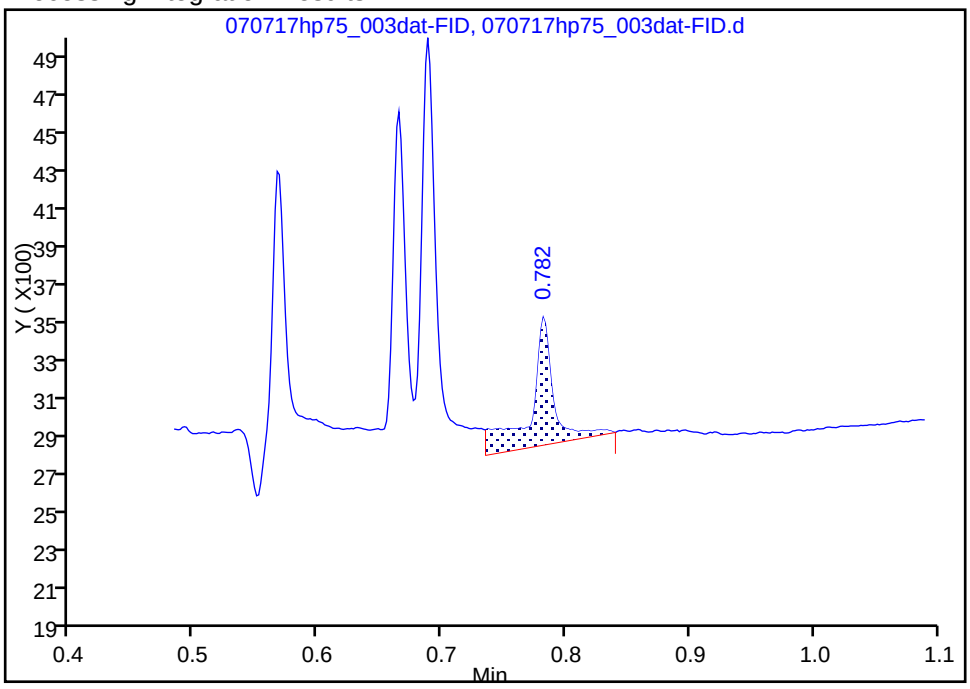
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

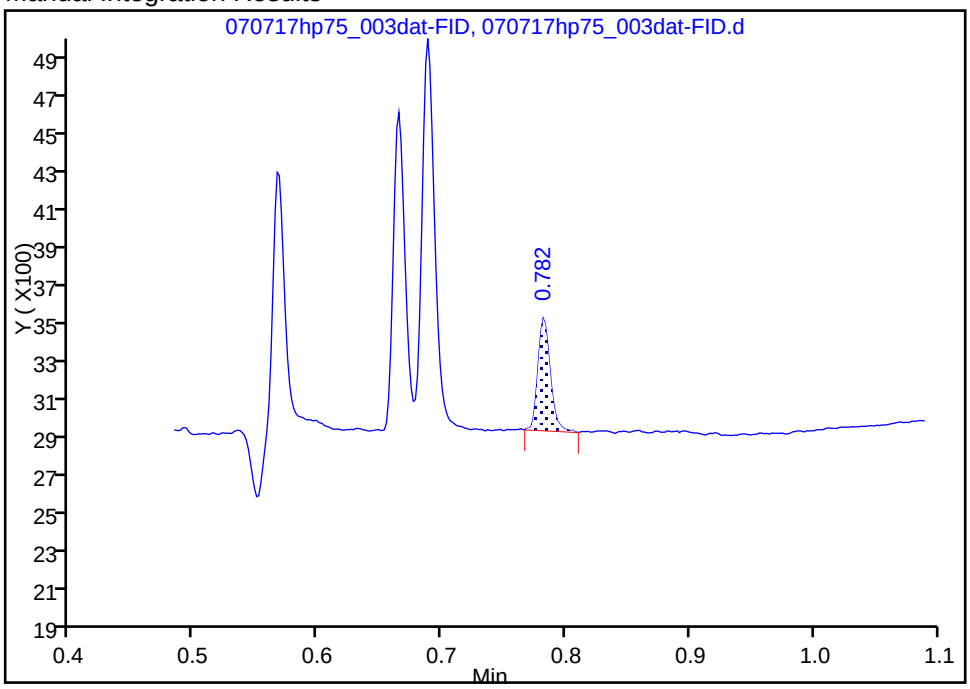
Processing Integration Results

RT: 0.78
Area: 864
Amount: 7.907613
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 406
Amount: 4.545457
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:28:15

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

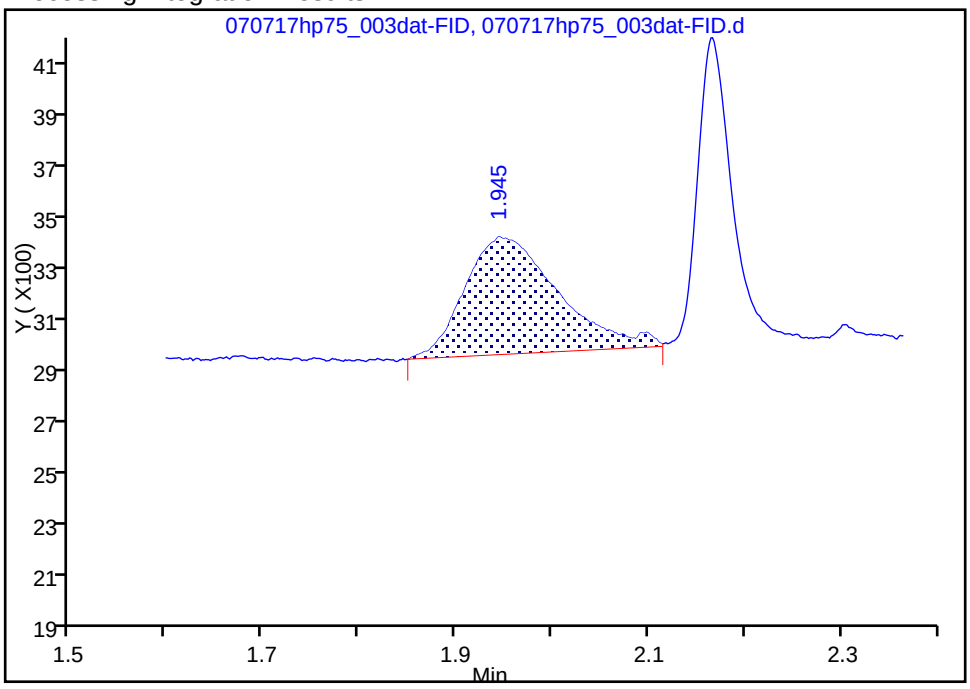
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

7 Propane, 2-methyl, CAS: 75-28-5

Signal: 1

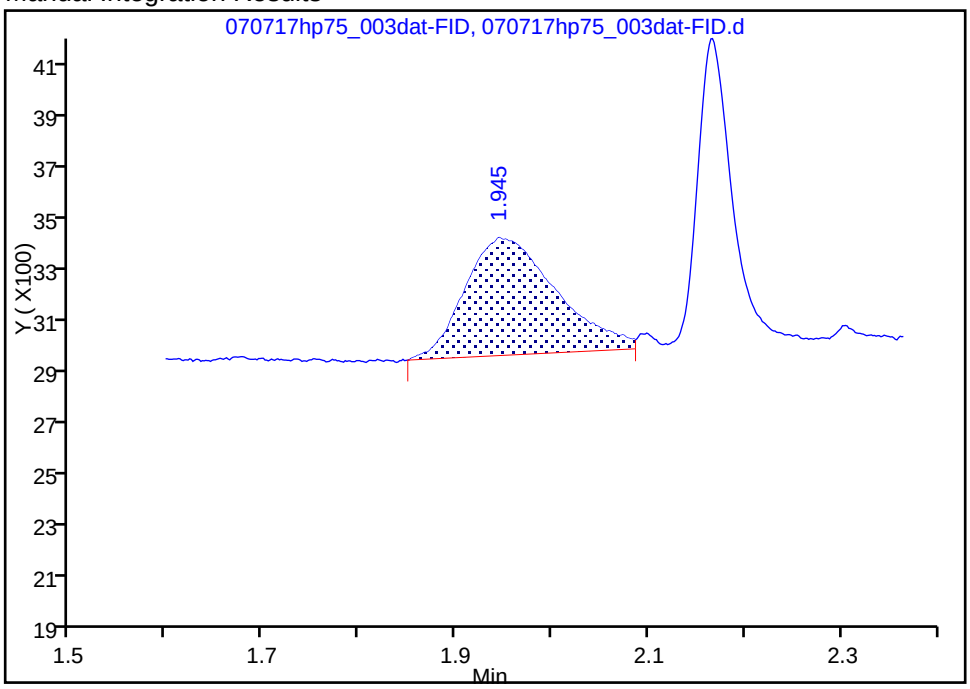
Processing Integration Results

RT: 1.94
Area: 2995
Amount: 11.136426
Amount Units: ug/l



Manual Integration Results

RT: 1.94
Area: 2934
Amount: 10.411723
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:28:30

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_004dat-FID.d
Lims ID: std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 07-Jul-2017 12:02:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: std3
Misc. Info.: std3
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:19 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 12:13:33

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.565	0.568	-0.003	7964	28.7	27.7	M
	2 Ethylene						
	0.663	0.667	-0.004	11728	49.3	45.3	
	3 Ethane						
	0.687	0.690	-0.003	14955	52.7	50.8	
$	4 Acetylene (Surr)						
	0.780	0.783	-0.003	4166	46.3	45.4	
	6 Propane						
	1.162	1.165	-0.003	21955	77.1	72.9	
	7 Propane, 2-methyl						
	1.937	1.942	-0.005	29283	102.0	96.9	
	8 Butane						
	2.153	2.157	-0.004	28479	102.0	92.9	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_8COMP_00007 Amount Added: 90.00 Units: uL
RSK_sur_ACE_00004 Amount Added: 90.00 Units: uL

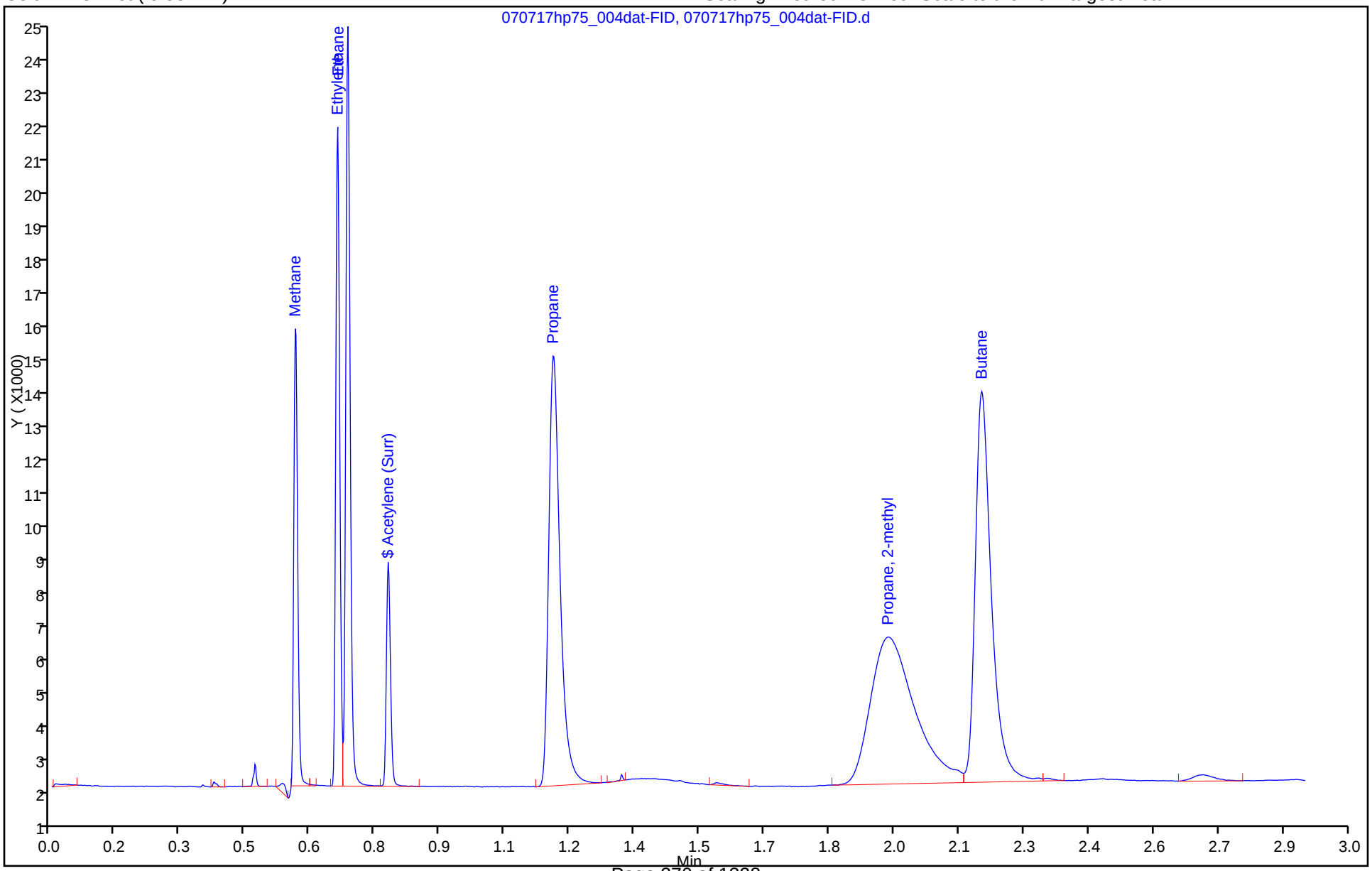
Report Date: 07-Jul-2017 15:11:19 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_004dat-FID.d

Injection Date:	07-Jul-2017 12:02:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std3			Worklist Smp#:	4
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

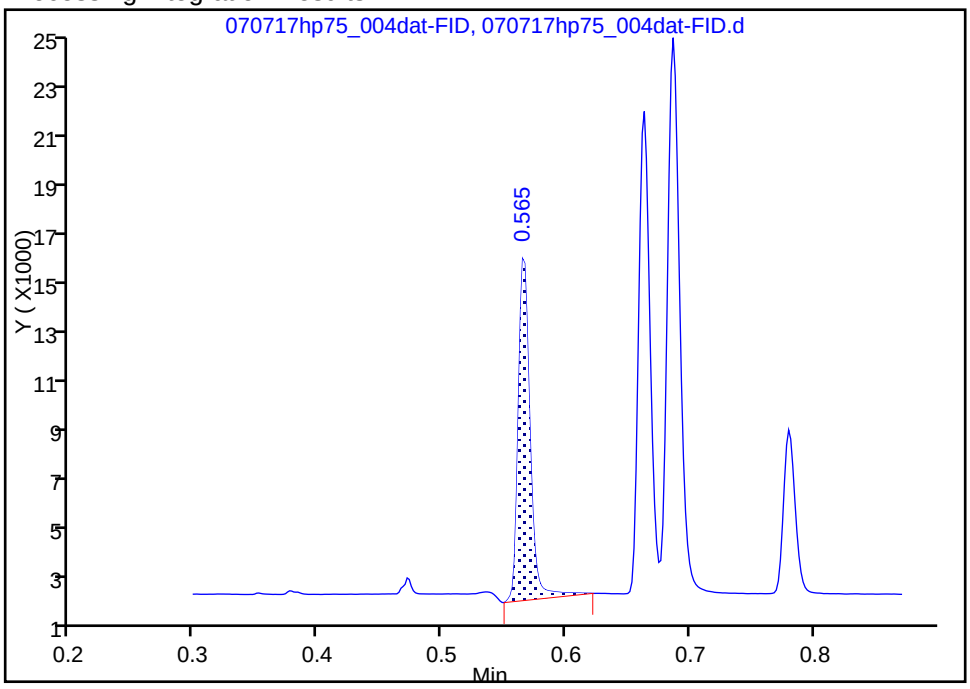
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_004dat-FID.d				
Injection Date:	07-Jul-2017 12:02:00	Instrument ID:	HP75		
Lims ID:	std3				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

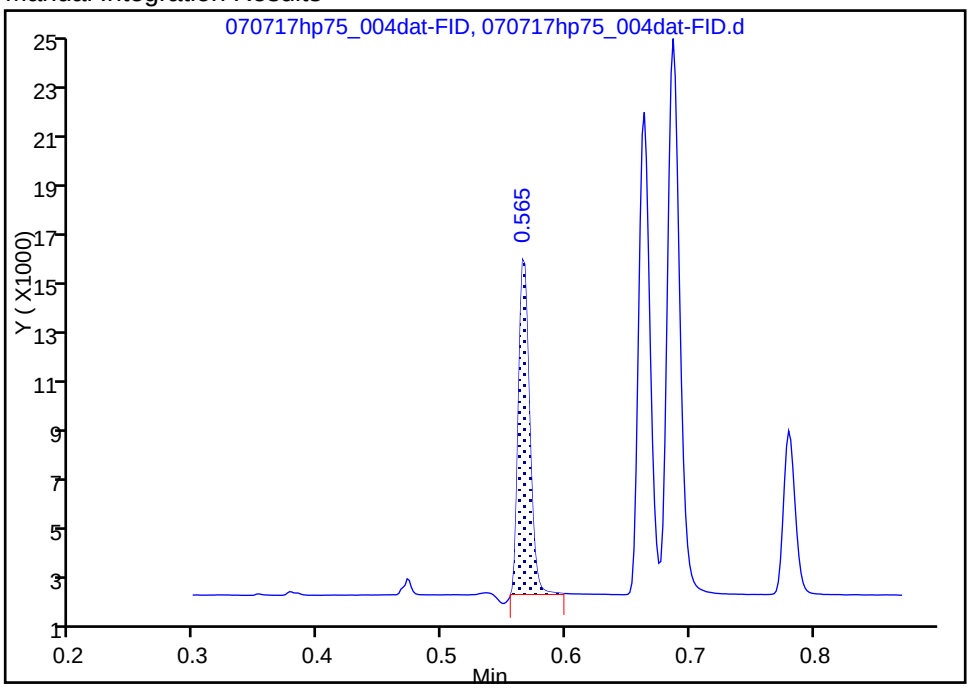
Processing Integration Results

RT: 0.56
Area: 8642
Amount: 30.993940
Amount Units: ug/l



Manual Integration Results

RT: 0.56
Area: 7964
Amount: 27.697118
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:14:56
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 07-Jul-2017 12:14:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICRT
Misc. Info.: ICRT
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:21 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 12:23:49

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.568	0.568	0.000	78414	286.7	274.5	M
	2 Ethylene						M
	0.667	0.667	0.000	123300	492.9	470.8	M
	3 Ethane						M
	0.690	0.690	0.000	150469	527.1	508.9	M
$	4 Acetylene (Surr)						M
	0.783	0.783	0.000	42227	462.9	459.5	M
	6 Propane						M
	1.165	1.165	0.000	218993	771.4	725.3	M
	7 Propane, 2-methyl						
	1.942	1.942	0.000	291734	1020.0	958.5	
	8 Butane						
	2.157	2.157	0.000	295412	1020.0	955.4	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL
RSK_8COMP_00007 Amount Added: 900.00 Units: uL

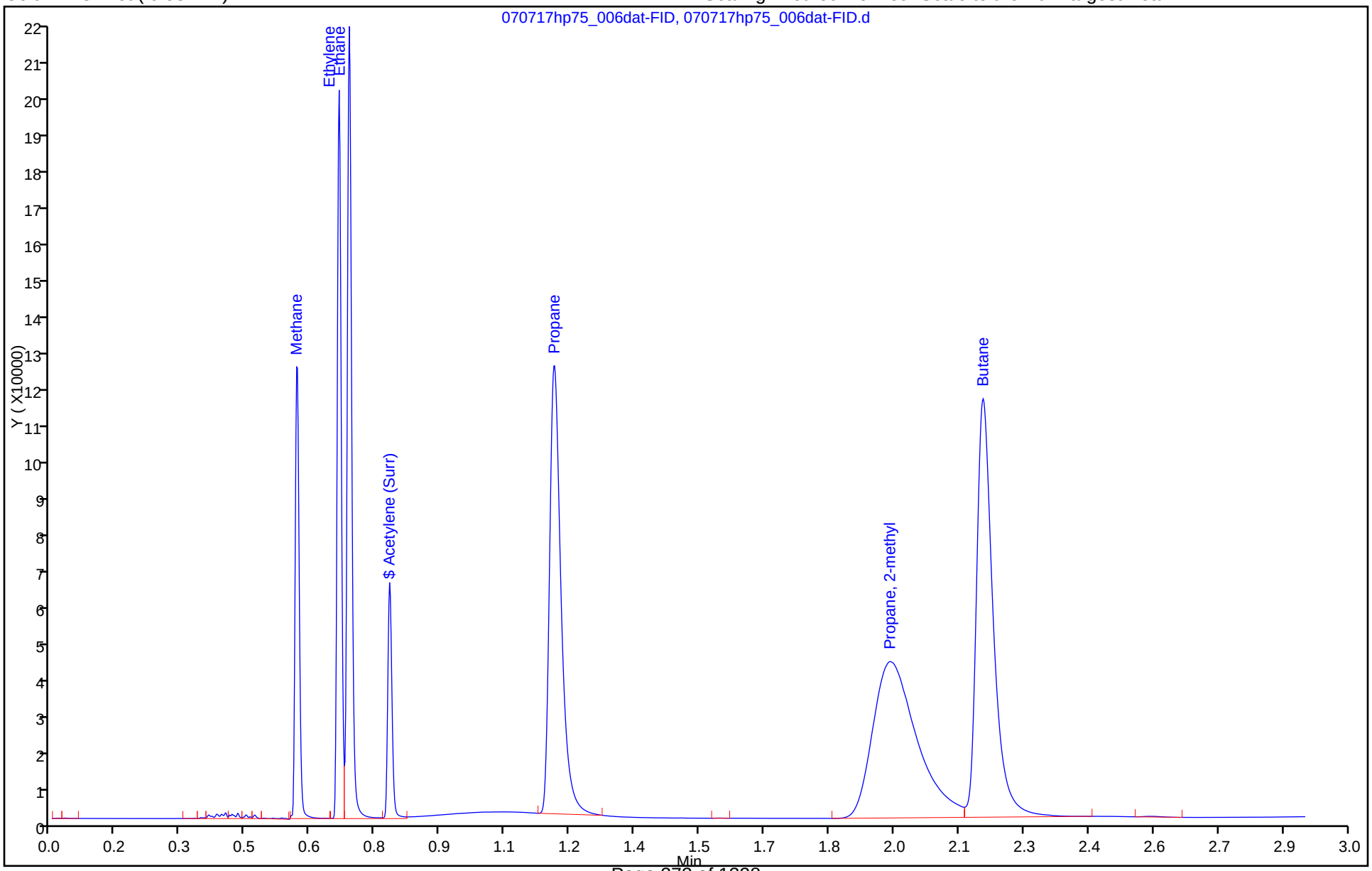
Report Date: 07-Jul-2017 15:11:21 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d

Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ICRT			Worklist Smp#:	6
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

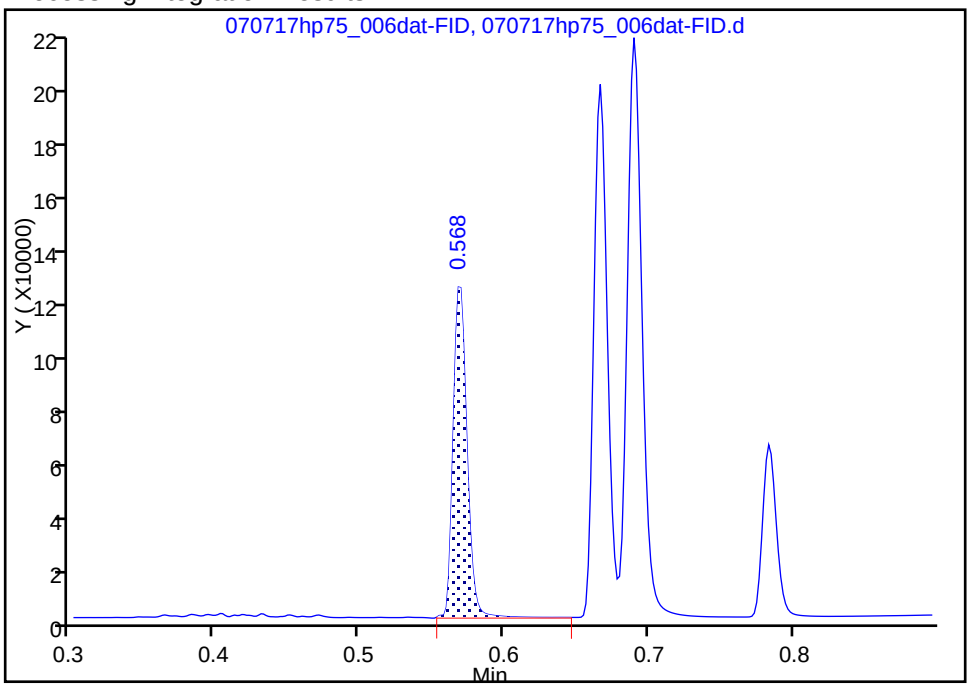
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

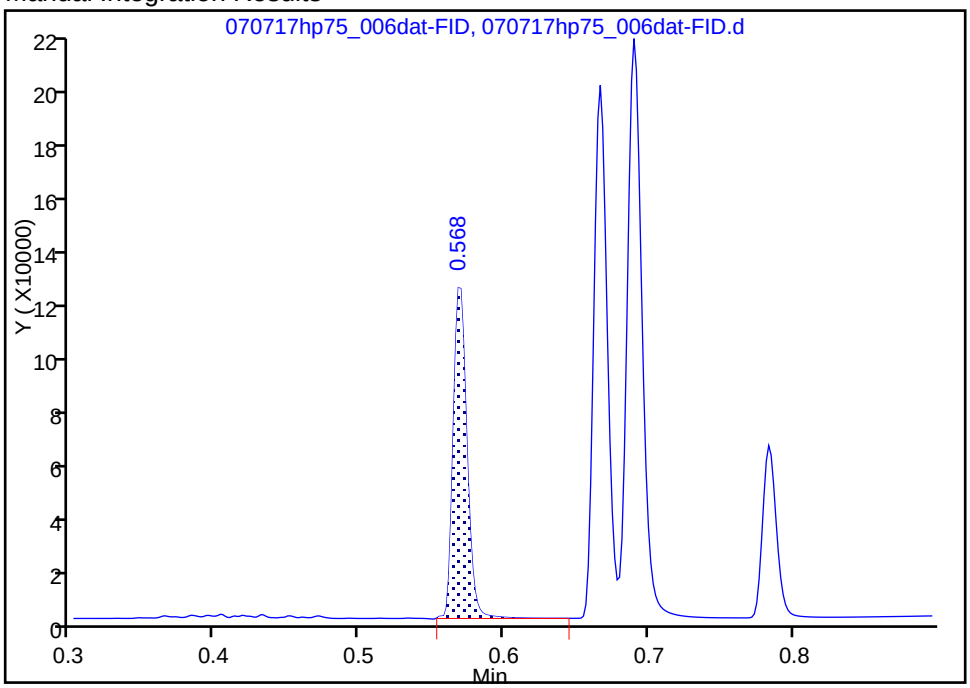
Processing Integration Results

RT: 0.57
Area: 79408
Amount: 201.4049
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 78414
Amount: 274.5226
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:19:41
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

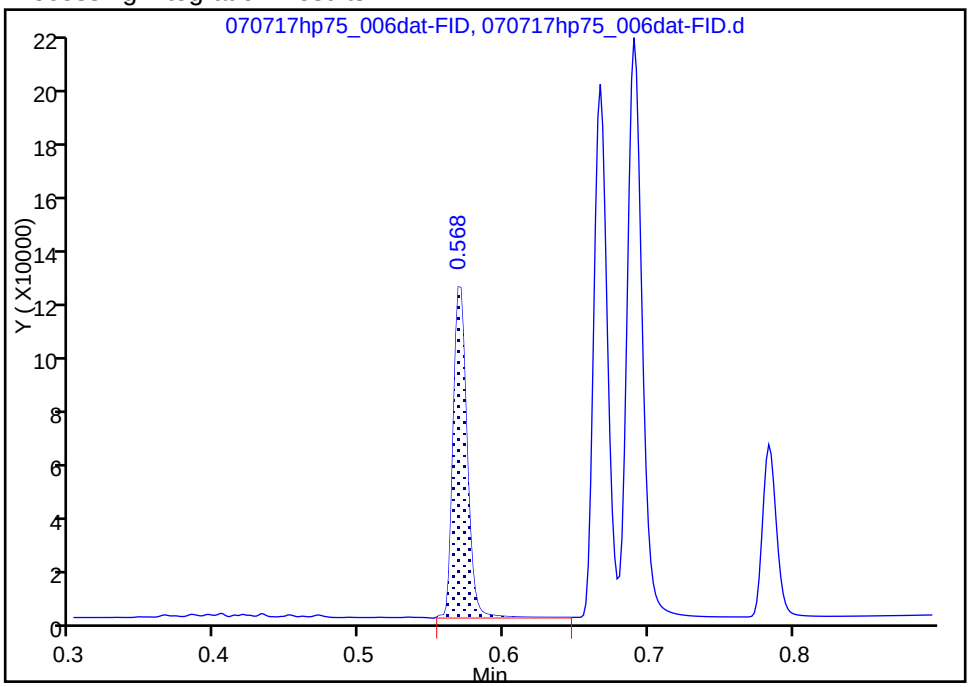
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

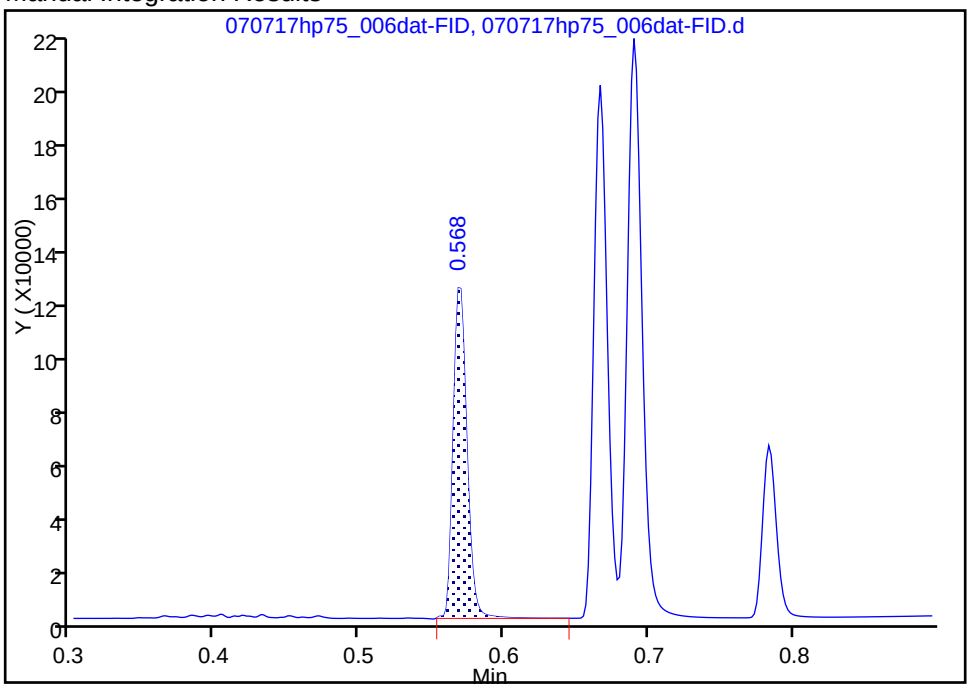
Processing Integration Results

RT: 0.57
Area: 79408
Amount: 201.4049
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 78414
Amount: 274.5226
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:23:00

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

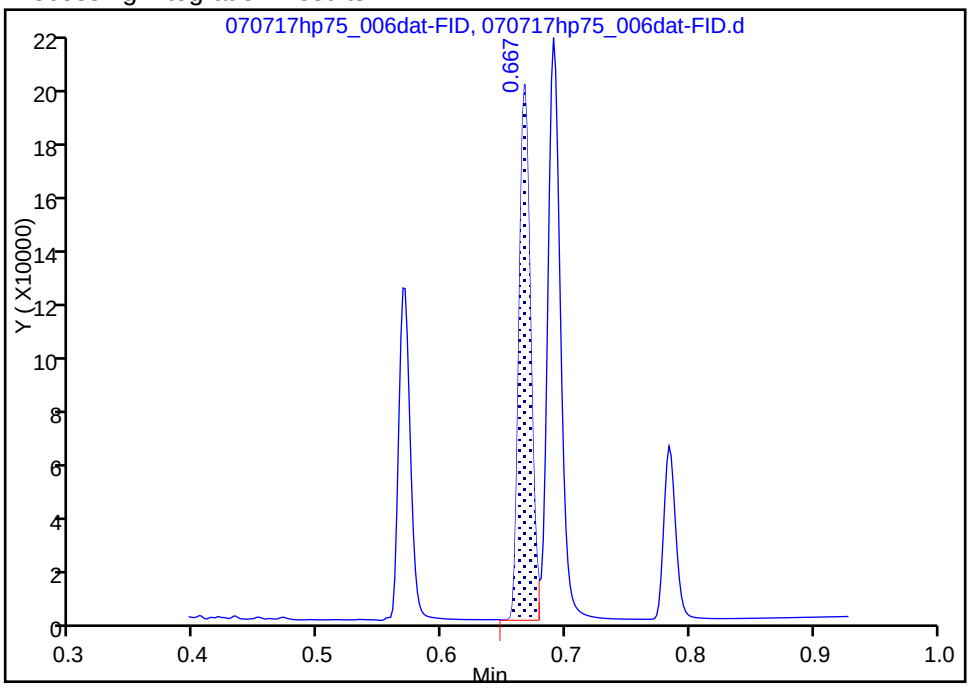
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

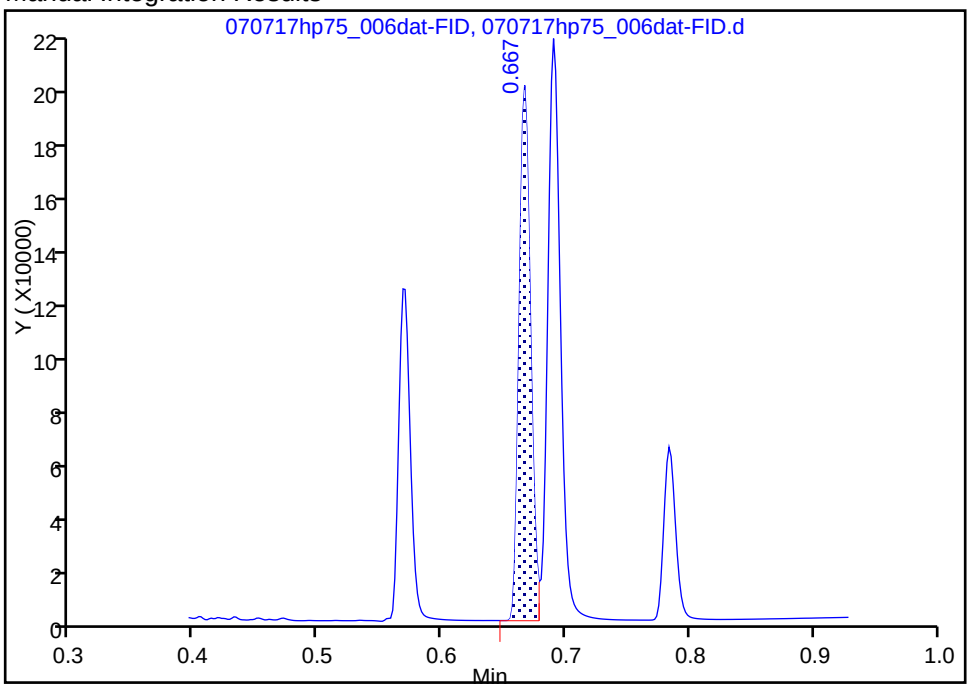
Processing Integration Results

RT: 0.67
Area: 123571
Amount: 534.2911
Amount Units: ug/l



Manual Integration Results

RT: 0.67
Area: 123300
Amount: 470.7916
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:19:45
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

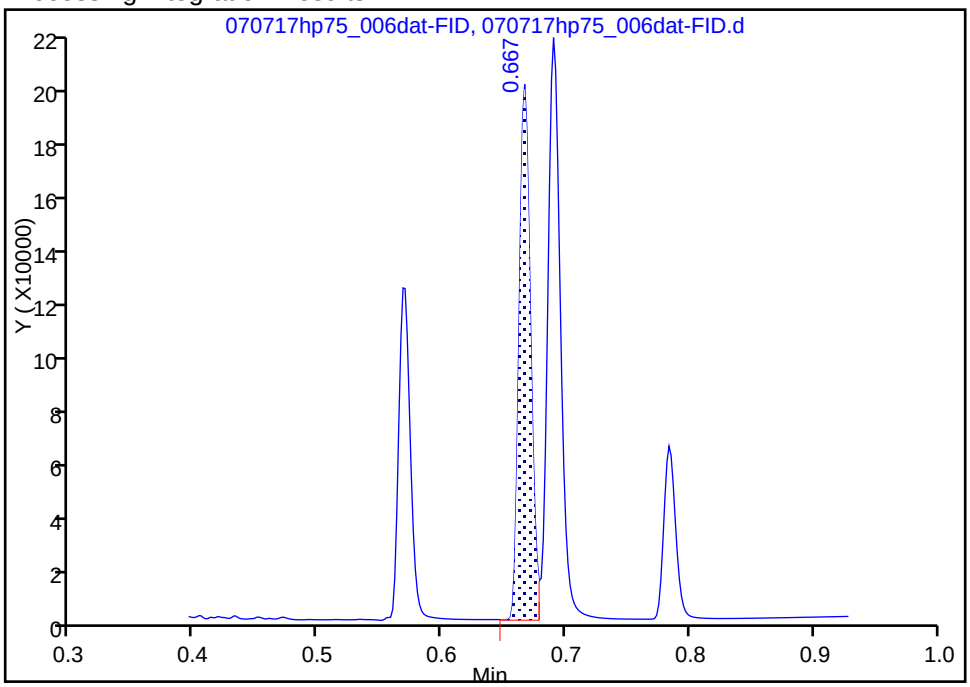
Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d
Injection Date: 07-Jul-2017 12:14:00 Instrument ID: HP75
Lims ID: ICRT
Client ID:
Operator ID: Brown, Antoinette (ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: RSK175LONG Limit Group: GC RSK175 ICAL
Column: U-Plot (0.53 mm) Detector IC FID

2 Ethylene, CAS: 74-85-1

Signal: 1

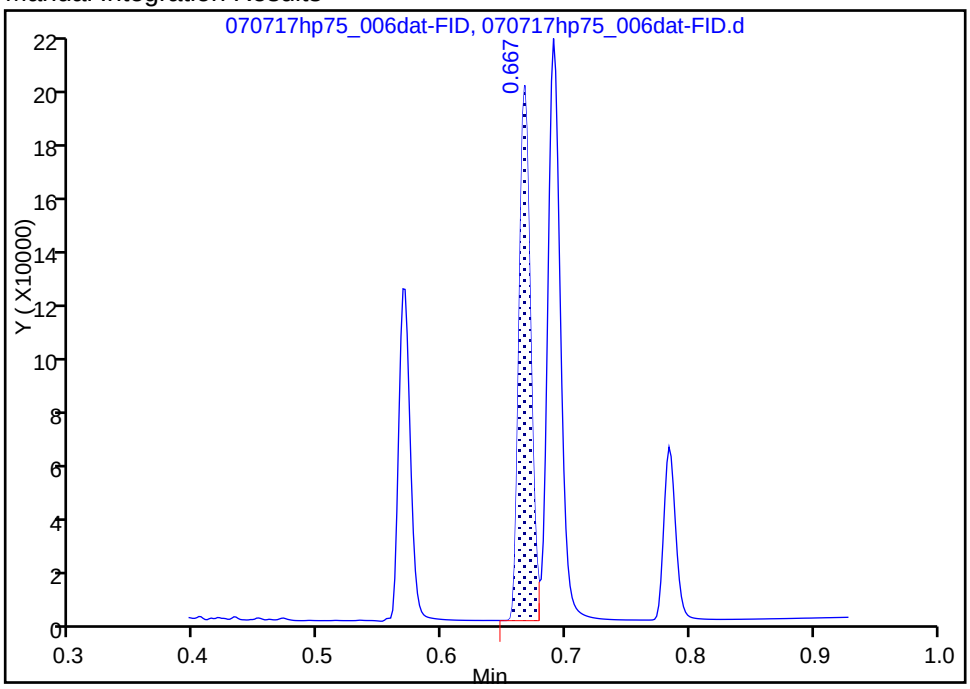
Processing Integration Results

RT: 0.67
Area: 123571
Amount: 534.2911
Amount Units: ug/l



Manual Integration Results

RT: 0.67
Area: 123300
Amount: 470.7916
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:23:05
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

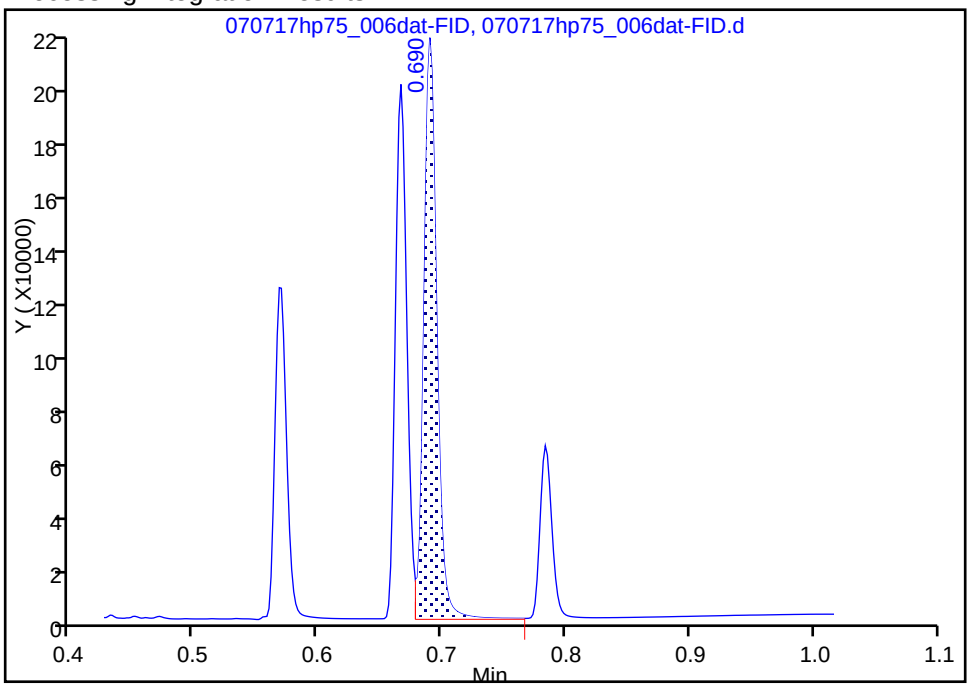
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

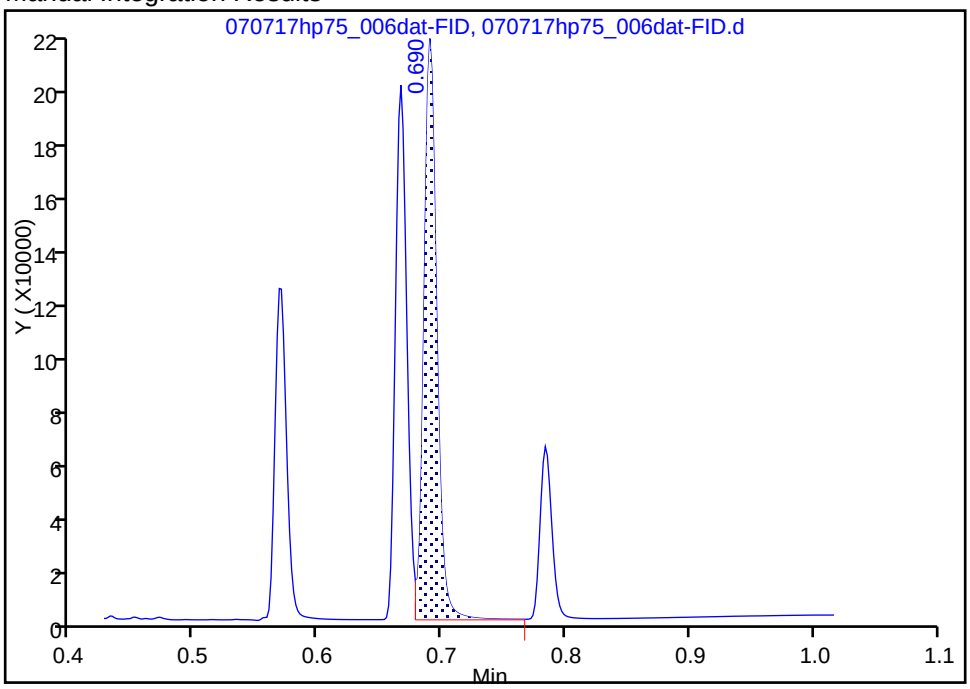
Processing Integration Results

RT: 0.69
Area: 151105
Amount: 539.5984
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 150469
Amount: 508.9035
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:19:48
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

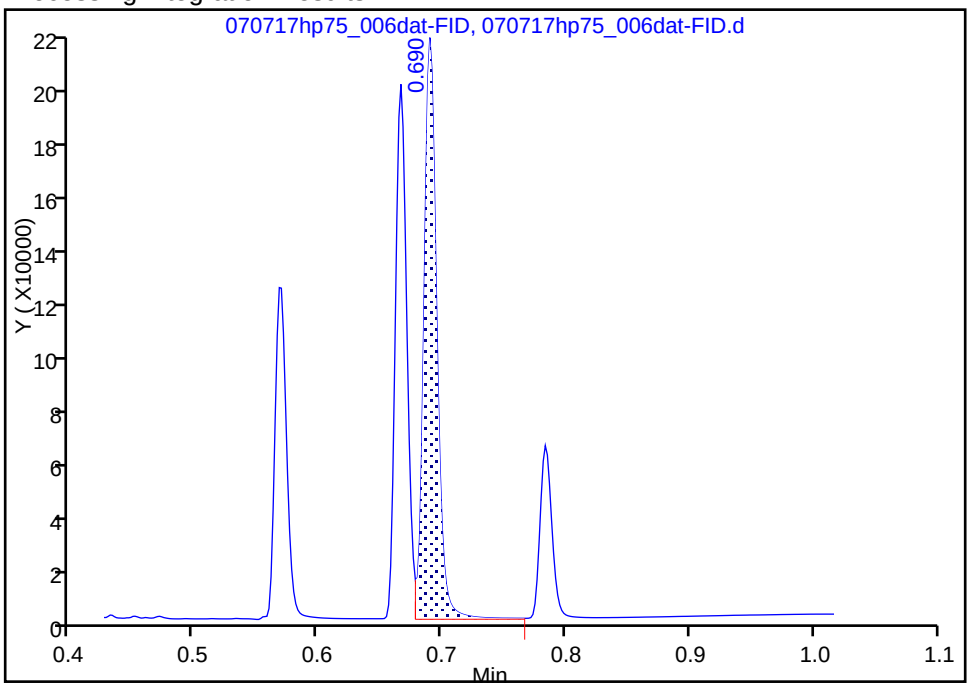
Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d
Injection Date: 07-Jul-2017 12:14:00 Instrument ID: HP75
Lims ID: ICRT
Client ID:
Operator ID: Brown, Antoinette (ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: RSK175LONG Limit Group: GC RSK175 ICAL
Column: U-Plot (0.53 mm) Detector IC FID

3 Ethane, CAS: 74-84-0

Signal: 1

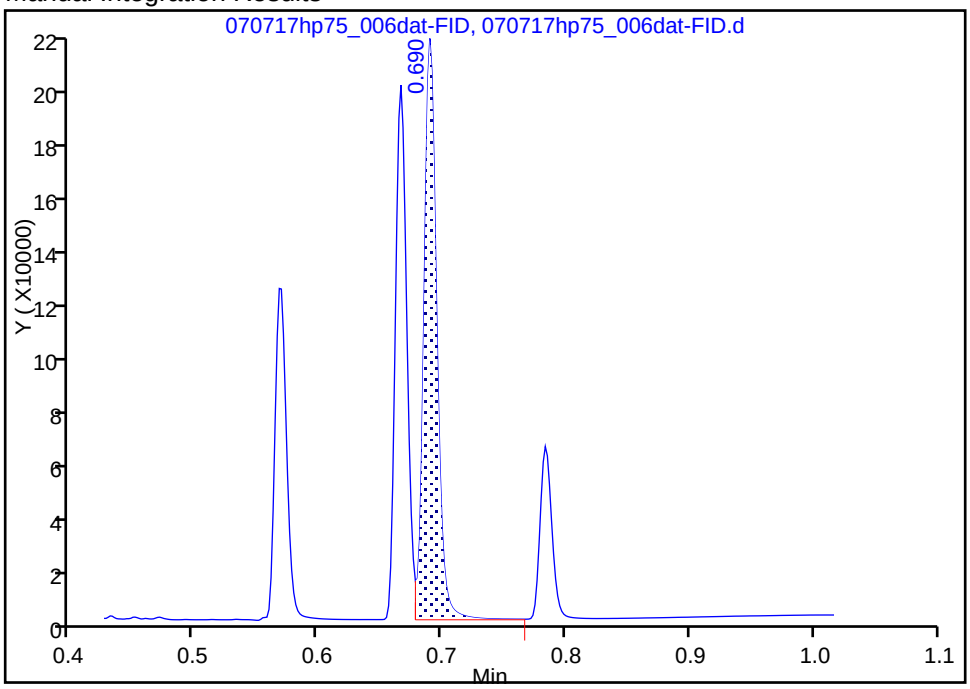
Processing Integration Results

RT: 0.69
Area: 151105
Amount: 539.5984
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 150469
Amount: 508.9035
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:23:14
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

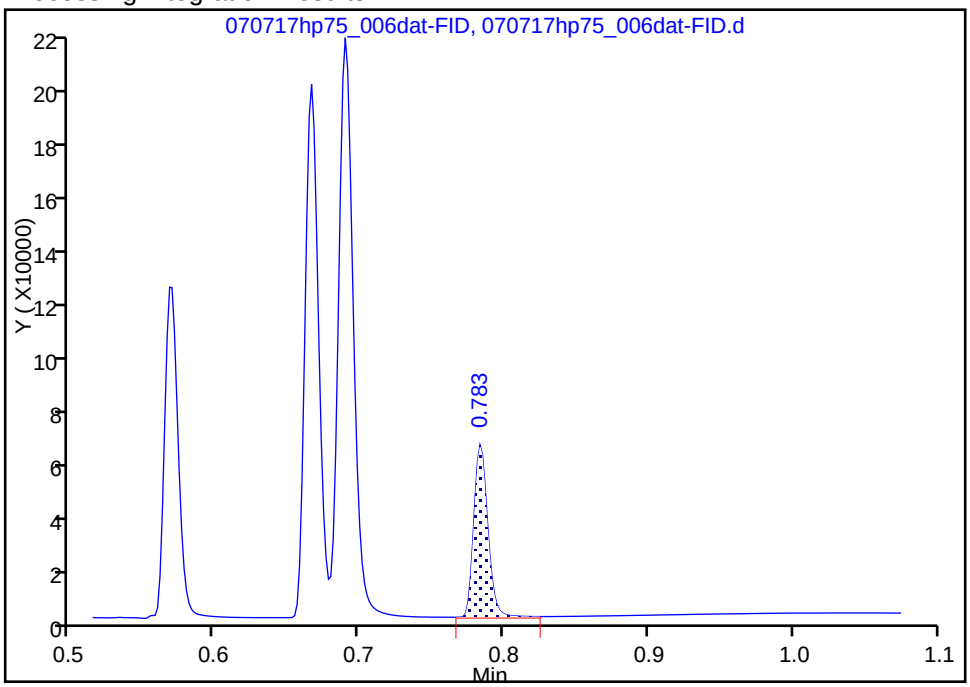
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

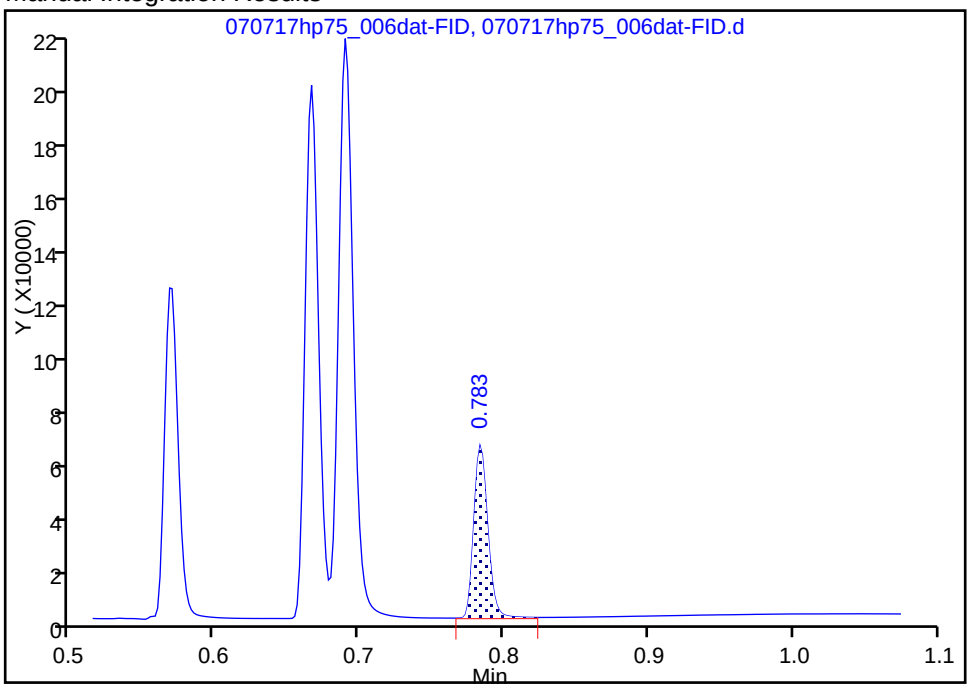
Processing Integration Results

RT: 0.78
Area: 42630
Amount: 463.3645
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 42227
Amount: 459.4874
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:19:51
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

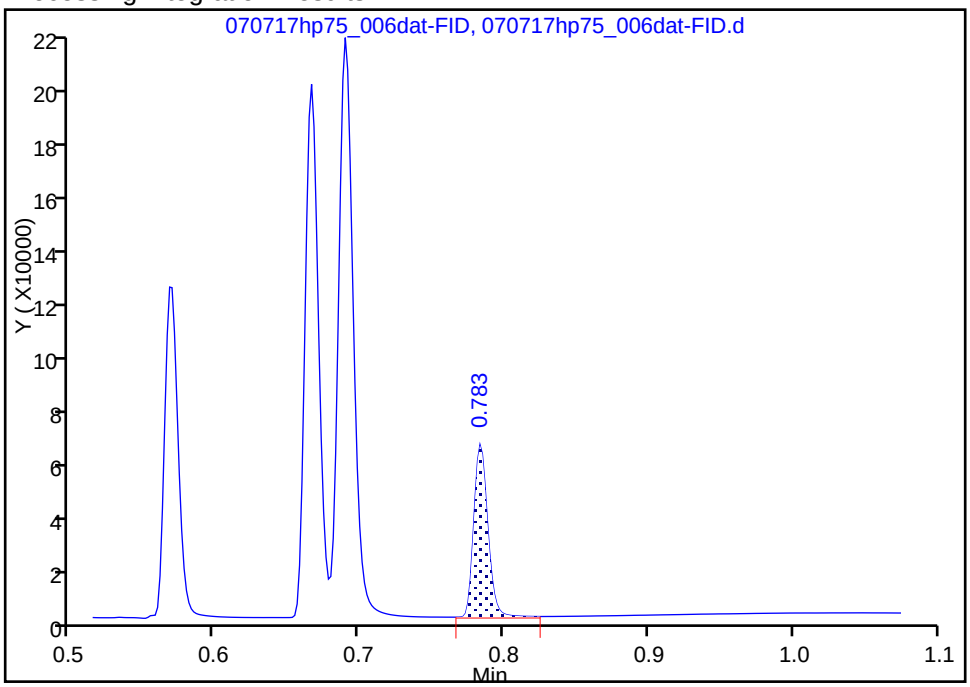
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

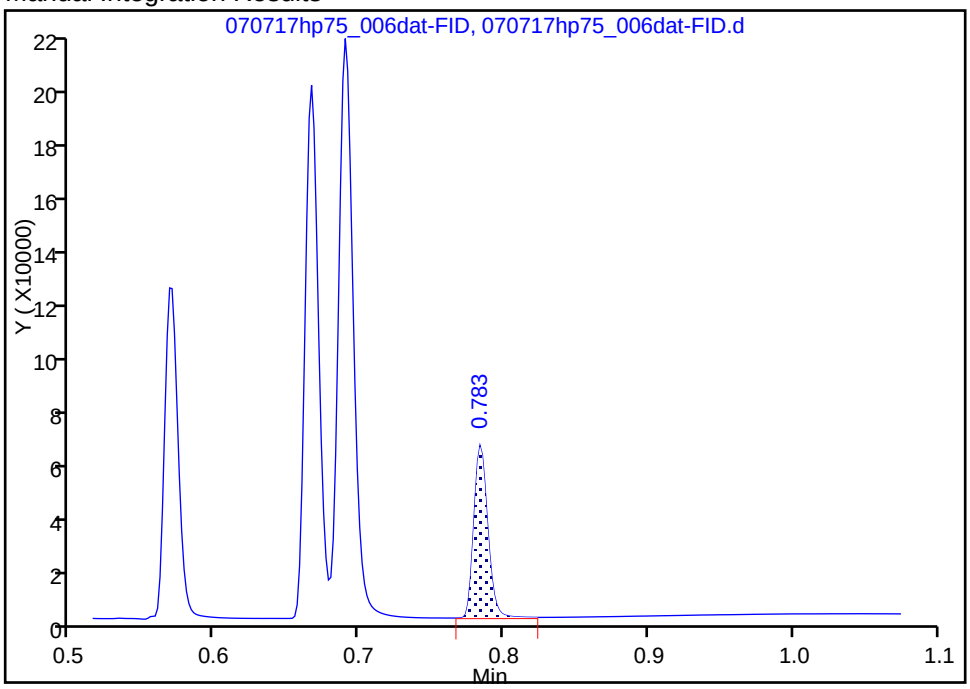
Processing Integration Results

RT: 0.78
Area: 42630
Amount: 463.3645
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 42227
Amount: 459.4874
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:23:23

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

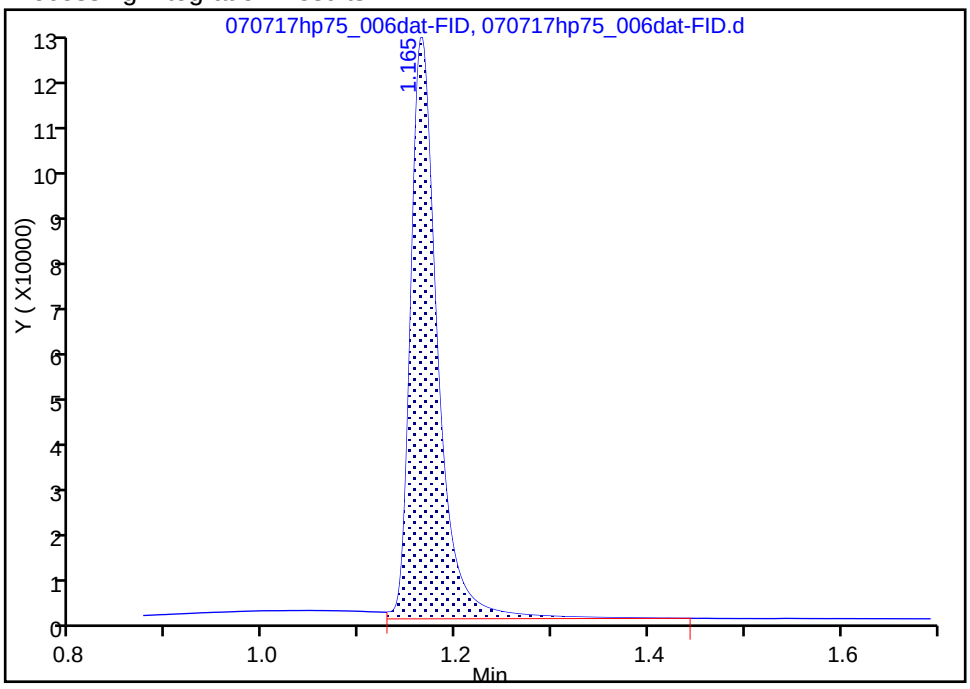
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

6 Propane, CAS: 74-98-6

Signal: 1

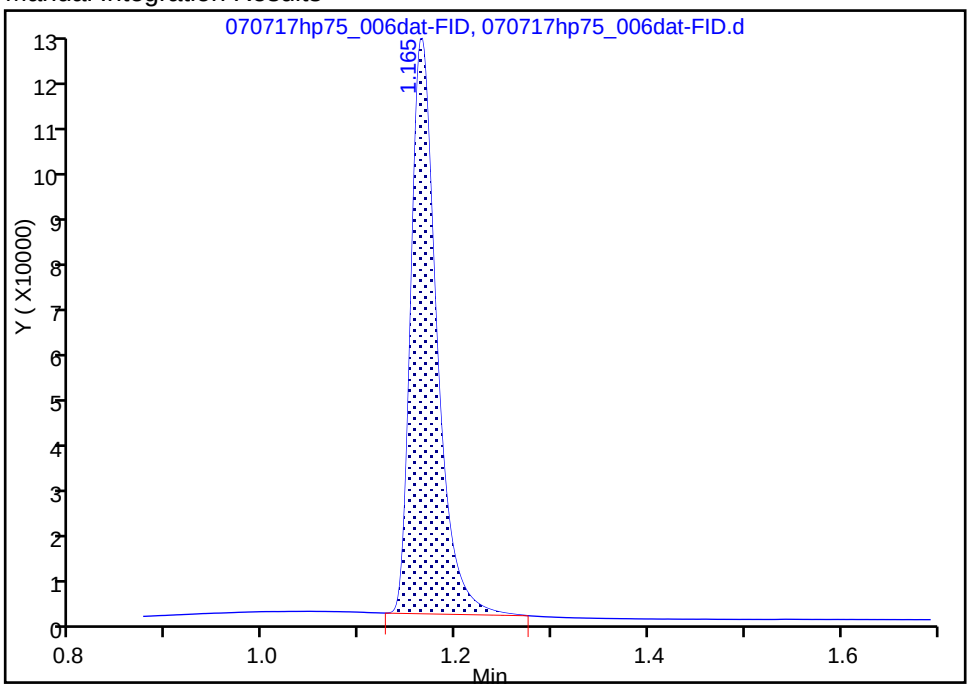
Processing Integration Results

RT: 1.16
Area: 230778
Amount: 774.8967
Amount Units: ug/l



Manual Integration Results

RT: 1.16
Area: 218993
Amount: 725.2848
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 12:19:54
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

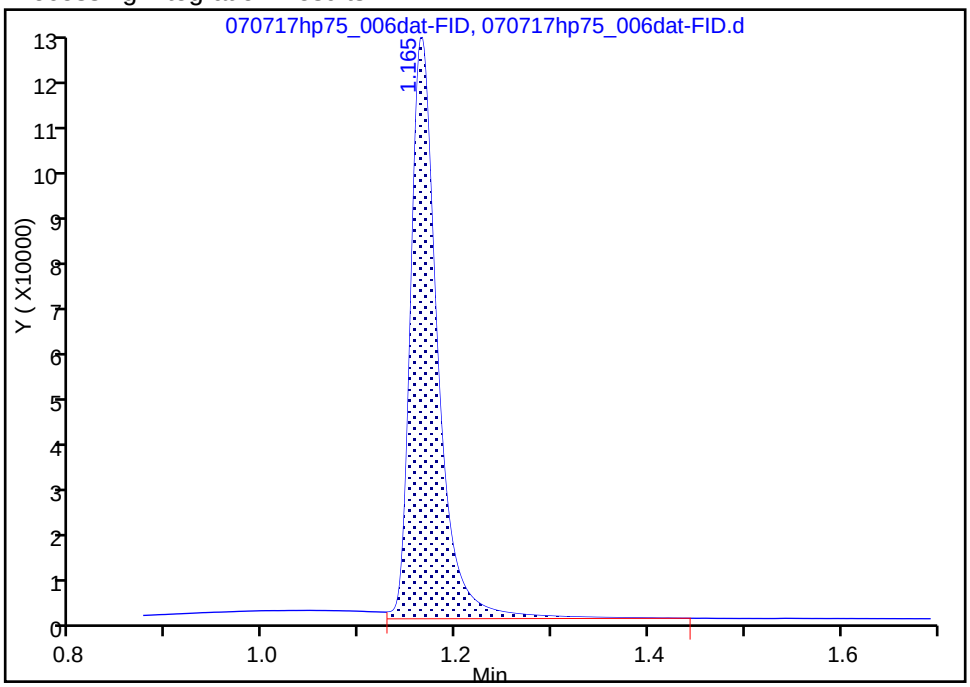
Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_006dat-FID.d
Injection Date: 07-Jul-2017 12:14:00 Instrument ID: HP75
Lims ID: ICRT
Client ID:
Operator ID: Brown, Antoinette (ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: RSK175LONG Limit Group: GC RSK175 ICAL
Column: U-Plot (0.53 mm) Detector IC FID

6 Propane, CAS: 74-98-6

Signal: 1

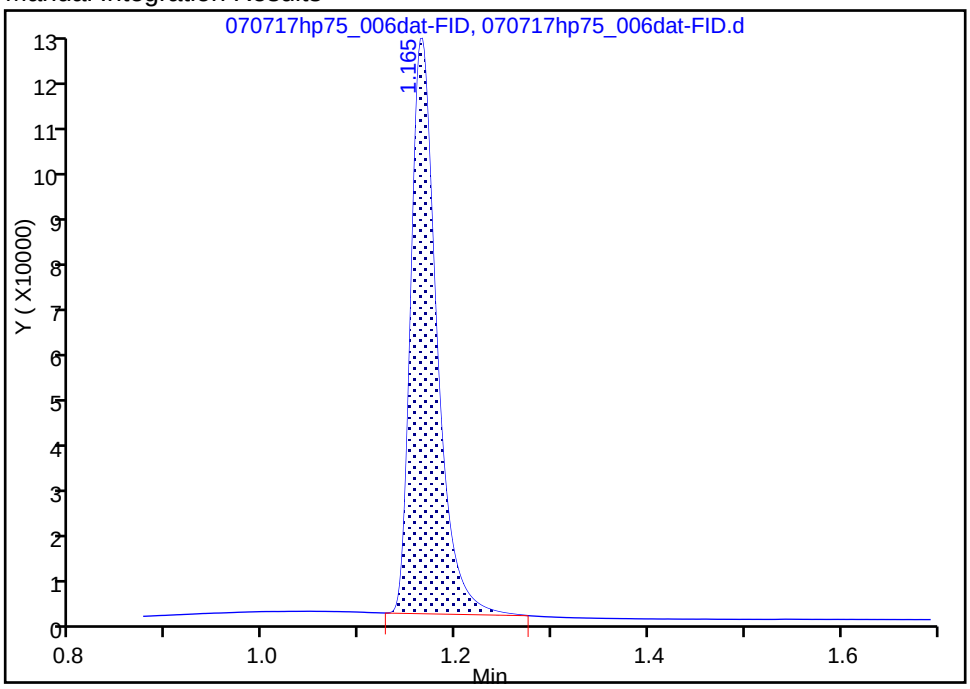
Processing Integration Results

RT: 1.16
Area: 230778
Amount: 774.8967
Amount Units: ug/l



Manual Integration Results

RT: 1.16
Area: 218993
Amount: 725.2848
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 13:22:29
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_007dat-FID.d				
Lims ID:	std6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	07-Jul-2017 12:29:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std6				
Misc. Info.:	std6				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub1				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:11:22	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				
First Level Reviewer: browna		Date:	07-Jul-2017 12:51:33		

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	0.565	0.568	-0.003	153500	557.5	537.6	
2	Ethylene						
	0.663	0.667	-0.004	250203	958.3	954.8	
3	Ethane						
	0.687	0.690	-0.003	292718	1025.0	989.8	
$	4 Acetylene (Surr)						
	0.780	0.783	-0.003	83739	900.0	911.1	
6	Propane						
	1.162	1.165	-0.003	442150	1500.0	1464.1	
7	Propane, 2-methyl						
	1.947	1.942	0.005	584806	1983.3	1920.6	
8	Butane						
	2.163	2.157	0.006	608066	1983.3	1965.5	

Reagents:

RSK_8COMP_00007	Amount Added: 1750.00	Units: uL
RSK_sur_ACE_00004	Amount Added: 1750.00	Units: uL

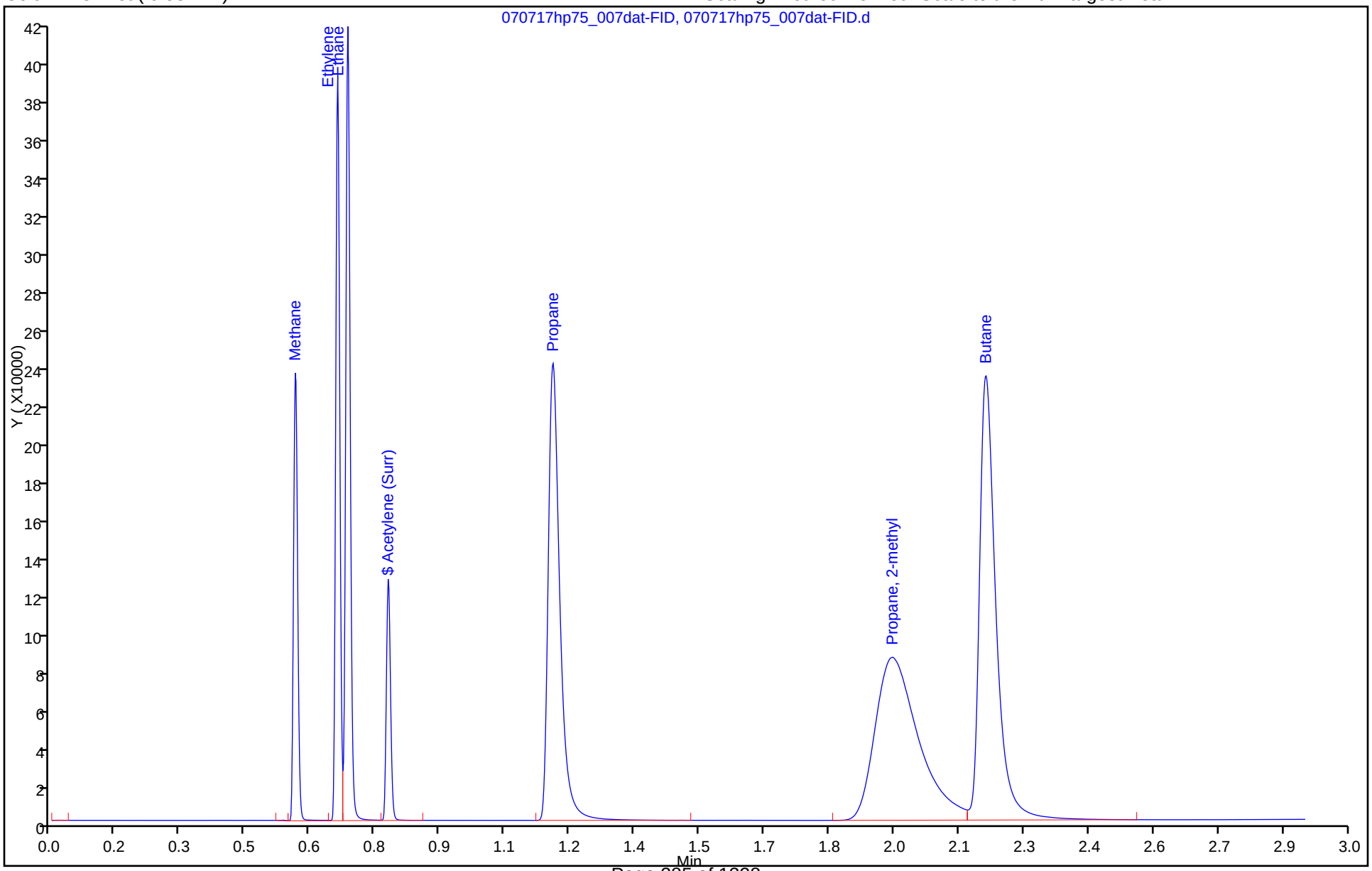
Report Date: 07-Jul-2017 15:11:22 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_007dat-FID.d

Injection Date:	07-Jul-2017 12:29:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std6			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_009dat-FID.d
Lims ID: std7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 07-Jul-2017 12:53:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: std7
Misc. Info.: std7
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:24 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 13:11:07

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						
	0.568	0.568	0.000	194888	700.9	682.6	
2	Ethylene						
	0.667	0.667	0.000	320305	1204.8	1222.1	
3	Ethane						
	0.690	0.690	0.000	371983	1288.6	1257.8	
$	4 Acetylene (Surr)						
	0.783	0.783	0.000	106366	1131.4	1157.2	
6	Propane						
	1.163	1.165	-0.002	559702	1885.7	1853.3	
7	Propane, 2-methyl						
	1.950	1.942	0.008	738205	2493.3	2424.2	
8	Butane						
	2.165	2.157	0.008	767746	2493.3	2481.4	

Reagents:

RSK_sur_ACE_00004 Amount Added: 2200.00 Units: uL
RSK_8COMP_00007 Amount Added: 2200.00 Units: uL

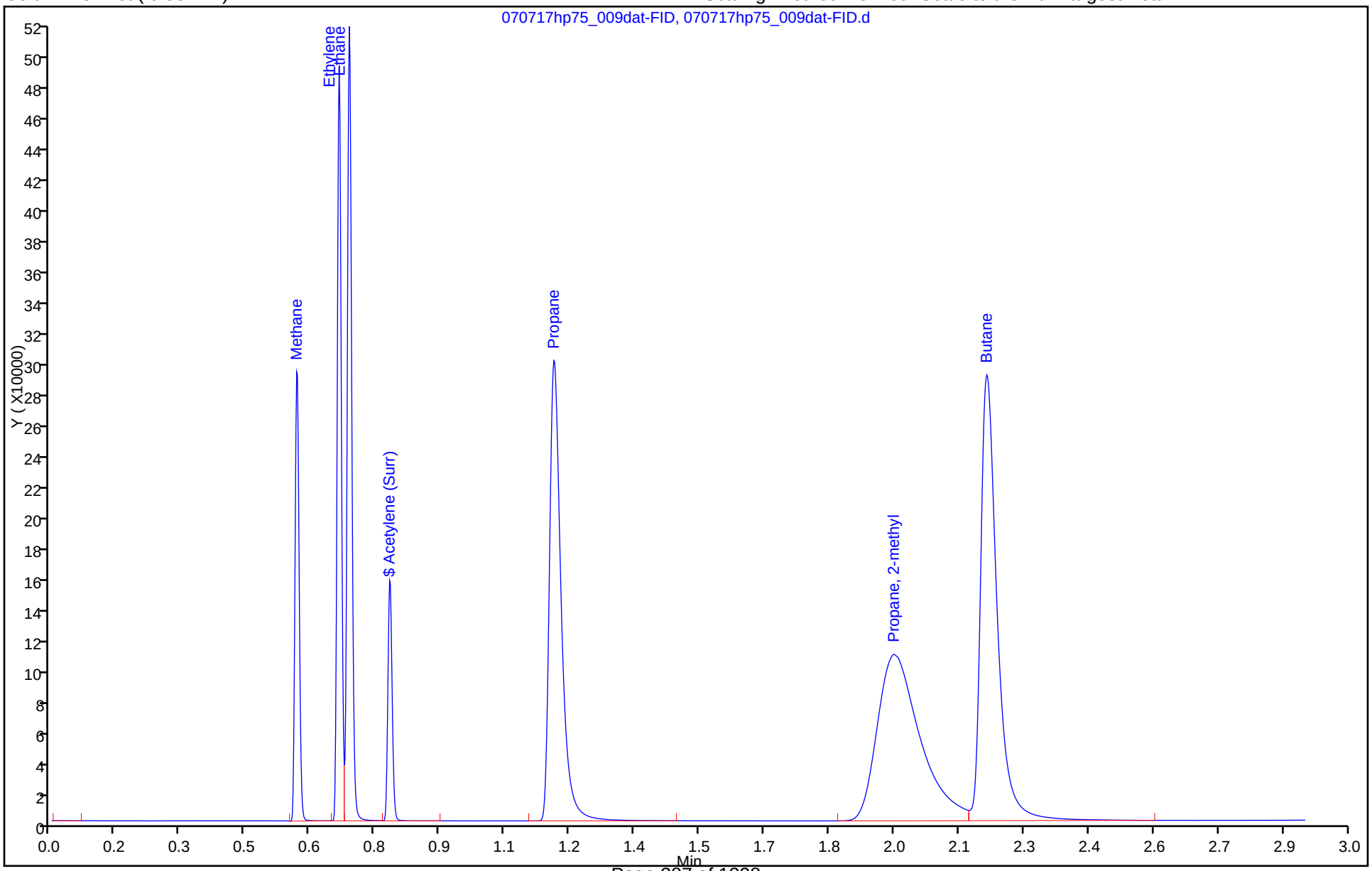
Report Date: 07-Jul-2017 15:11:24 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_009dat-FID.d

Injection Date:	07-Jul-2017 12:53:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Lims ID:	std4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	07-Jul-2017 14:03:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std4				
Misc. Info.:	std4				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub1				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:11:26	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

First Level Reviewer: browna Date: 07-Jul-2017 14:28:43

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.563	0.568	-0.005	17207	55.8	60.1	M
	2 Ethylene						M
	0.662	0.667	-0.005	28235	95.8	108.2	M
	3 Ethane						M
	0.685	0.690	-0.005	34179	102.5	115.8	M
$	4 Acetylene (Surr)						M
	0.778	0.783	-0.005	8248	90.0	89.9	M
	6 Propane						
	1.162	1.165	-0.003	52157	150.0	172.9	
	7 Propane, 2-methyl						
	1.952	1.942	0.010	69866	198.3	230.1	
	8 Butane						
	2.170	2.157	0.013	71145	198.3	230.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_8COMP_00007	Amount Added: 175.00	Units: uL
RSK_sur_ACE_00004	Amount Added: 175.00	Units: uL

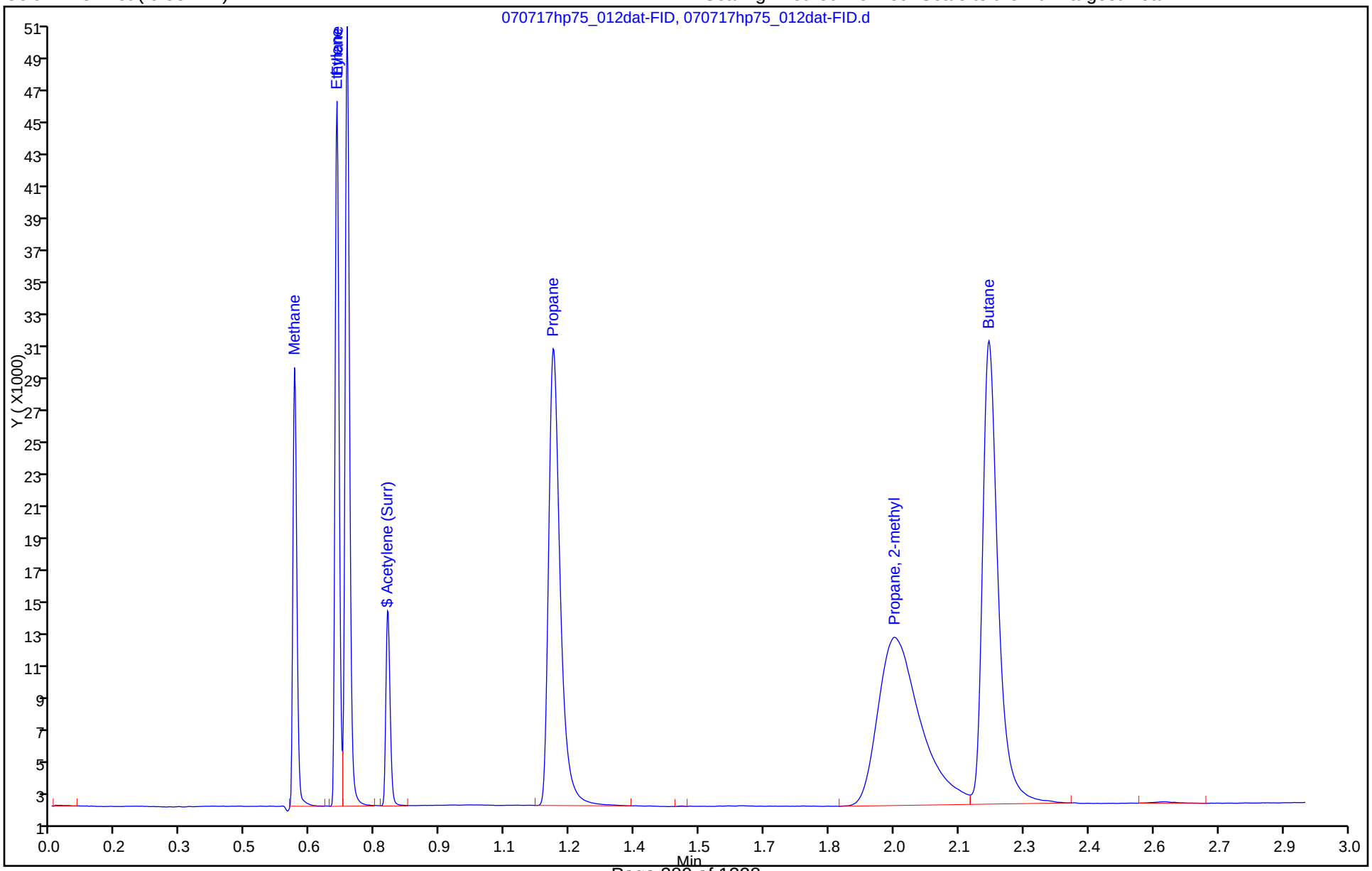
Report Date: 07-Jul-2017 15:11:26 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std4			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

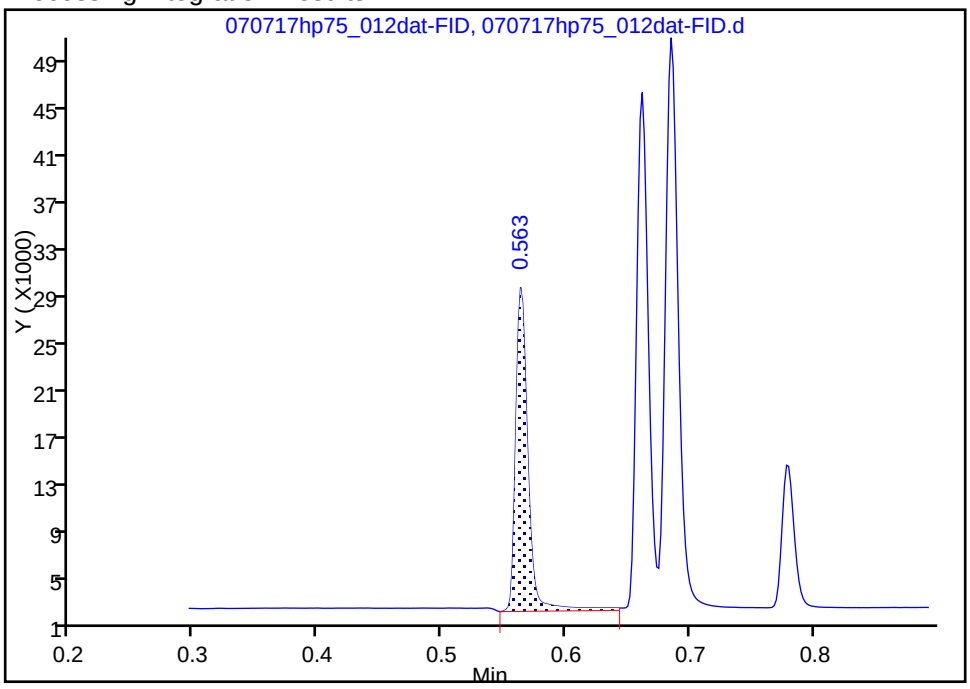
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75		
Lims ID:	std4				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

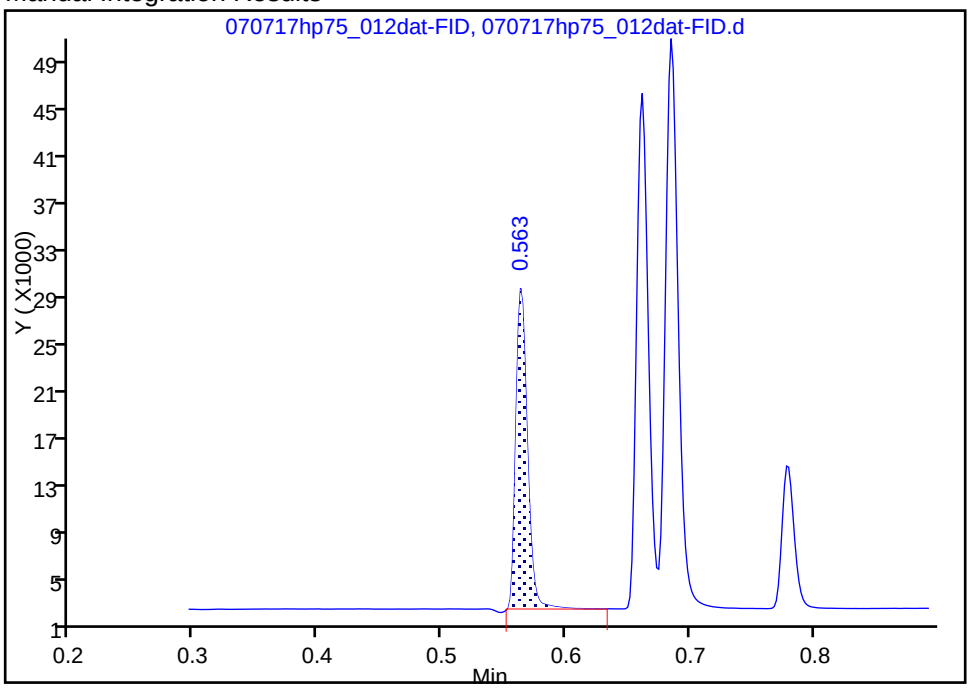
Processing Integration Results

RT: 0.56
Area: 18498
Amount: 66.680136
Amount Units: ug/l



Manual Integration Results

RT: 0.56
Area: 17207
Amount: 60.080483
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:09:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

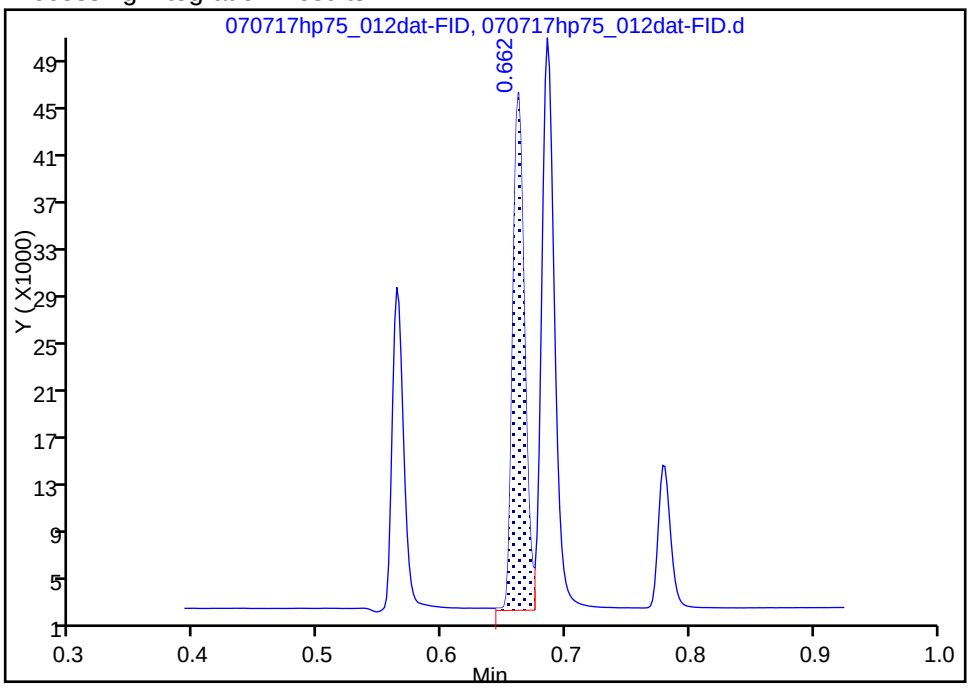
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75		
Lims ID:	std4				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

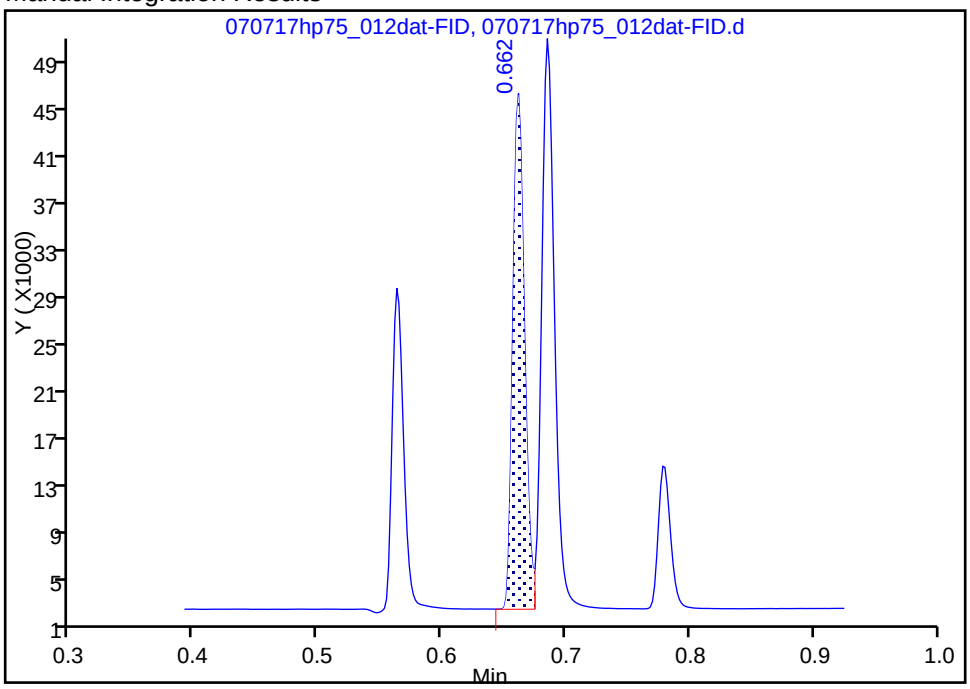
Processing Integration Results

RT: 0.66
Area: 28542
Amount: 110.0238
Amount Units: ug/l



Manual Integration Results

RT: 0.66
Area: 28235
Amount: 108.2259
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:09:25

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

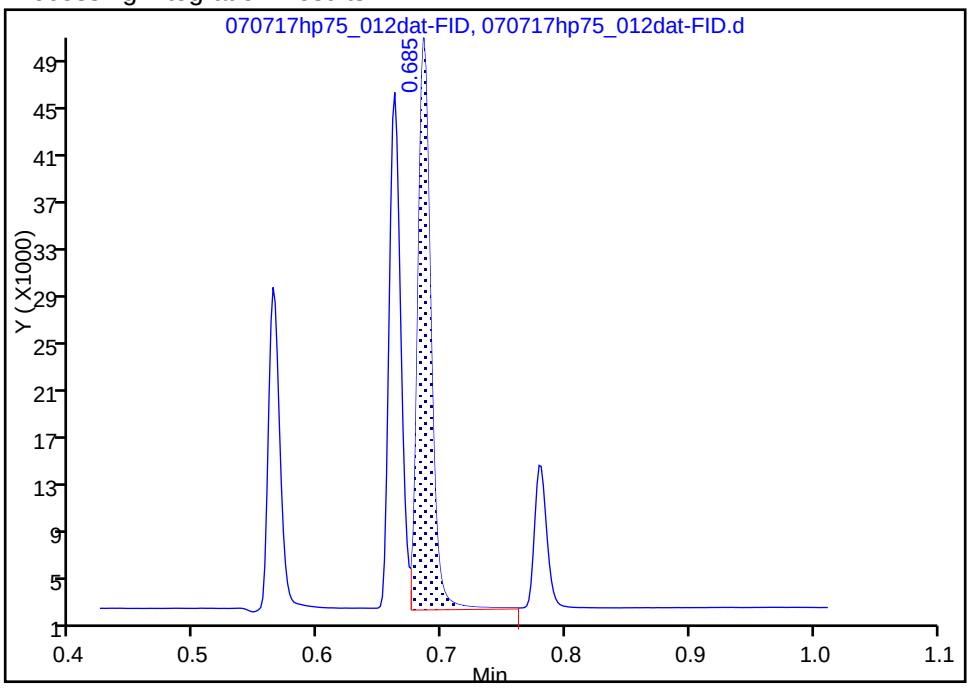
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75		
Lims ID:	std4				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

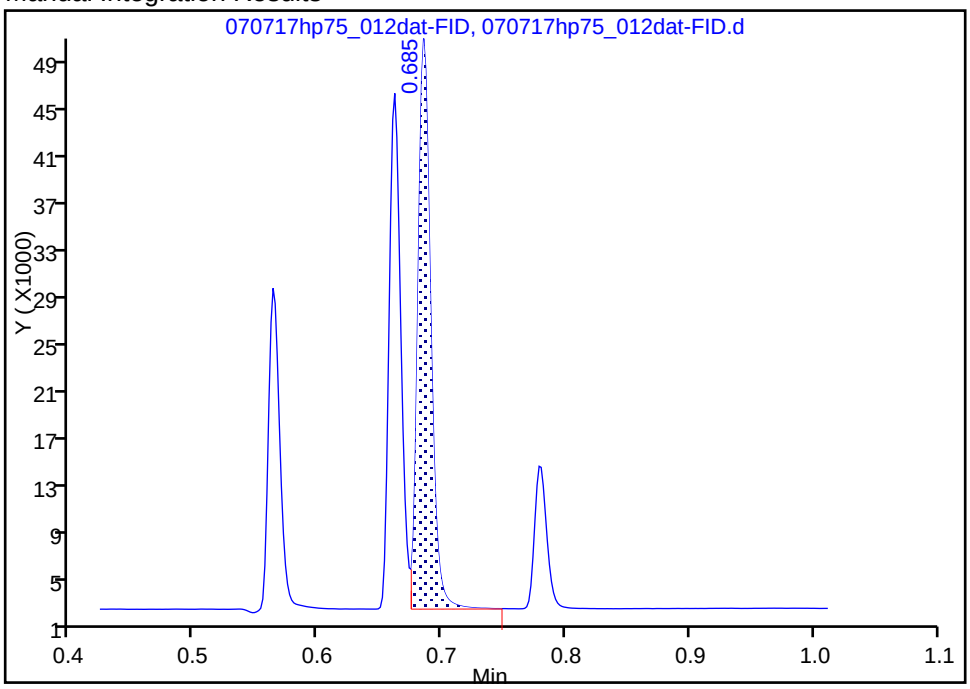
Processing Integration Results

RT: 0.68
Area: 34771
Amount: 121.3169
Amount Units: ug/l



Manual Integration Results

RT: 0.68
Area: 34179
Amount: 115.7746
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:09:40

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

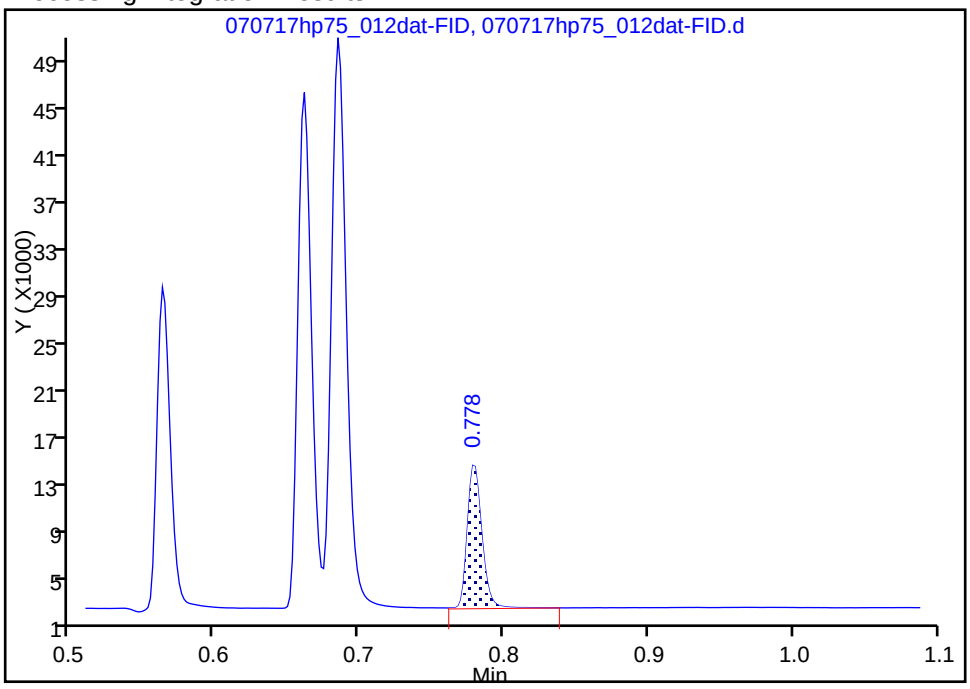
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75		
Lims ID:	std4				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

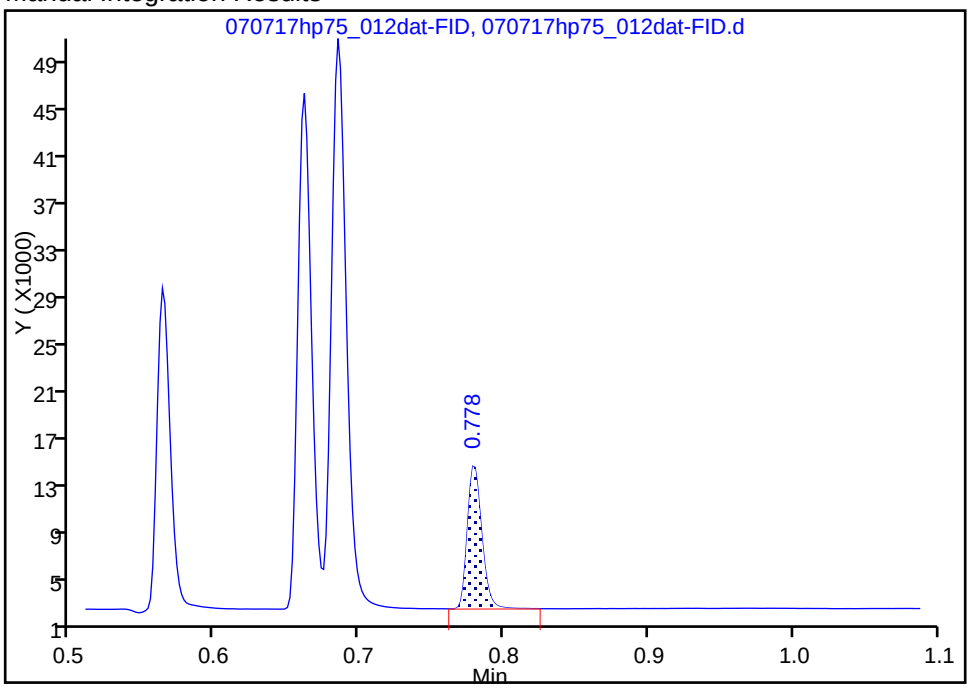
Processing Integration Results

RT: 0.78
Area: 8382
Amount: 90.246263
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 8248
Amount: 89.853185
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:09:55

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443459

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66683

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443459/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443459/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443459/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443459/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443459/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443459/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443459/9	070717hp75_009dat-FID.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Acetylene	0.780	0.782	0.780	0.778	0.783	0.780	0.783				0.775 - 0.835	0.781

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443459

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66683

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443459/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443459/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443459/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443459/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443459/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443459/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443459/9	070717hp75_009dat-FID.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Acetylene	87.716 91.341	86.204 93.043	90.006 94.010	93.278	Lin2	-13.828266	92.1530546							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Nashville Job No.: 240-81987-1 Analy Batch No.: 443459

SDG No.:

Instrument ID: HP75 GC Column: RT-U-Bond ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2017 11:51 Calibration End Date: 07/07/2017 14:03 Calibration ID: 66683

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-443459/2	070717hp75_002dat-FID.d
Level 2	STD2 490-443459/3	070717hp75_003dat-FID.d
Level 3	STD3 490-443459/4	070717hp75_004dat-FID.d
Level 4	STD4 490-443459/12	070717hp75_012dat-FID.d
Level 5	ICRT 490-443459/6	070717hp75_006dat-FID.d
Level 6	STD6 490-443459/7	070717hp75_007dat-FID.d
Level 7	STD7 490-443459/9	070717hp75_009dat-FID.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acetylene	Lin2	203 83739	399 106366	4166	8395	42278	2.31 900	4.63 1131	46.3	90.0	463

Curve Type Legend:
Lin2 = Linear 1/conc^2

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_002dat-FID.d				
Lims ID:	std1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	07-Jul-2017 11:51:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std1				
Misc. Info.:	std1				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:48	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.780	0.783	-0.003	203	2.31	2.35	

Reagents:

RSK_ACE_00004 Amount Added: 4.50 Units: uL

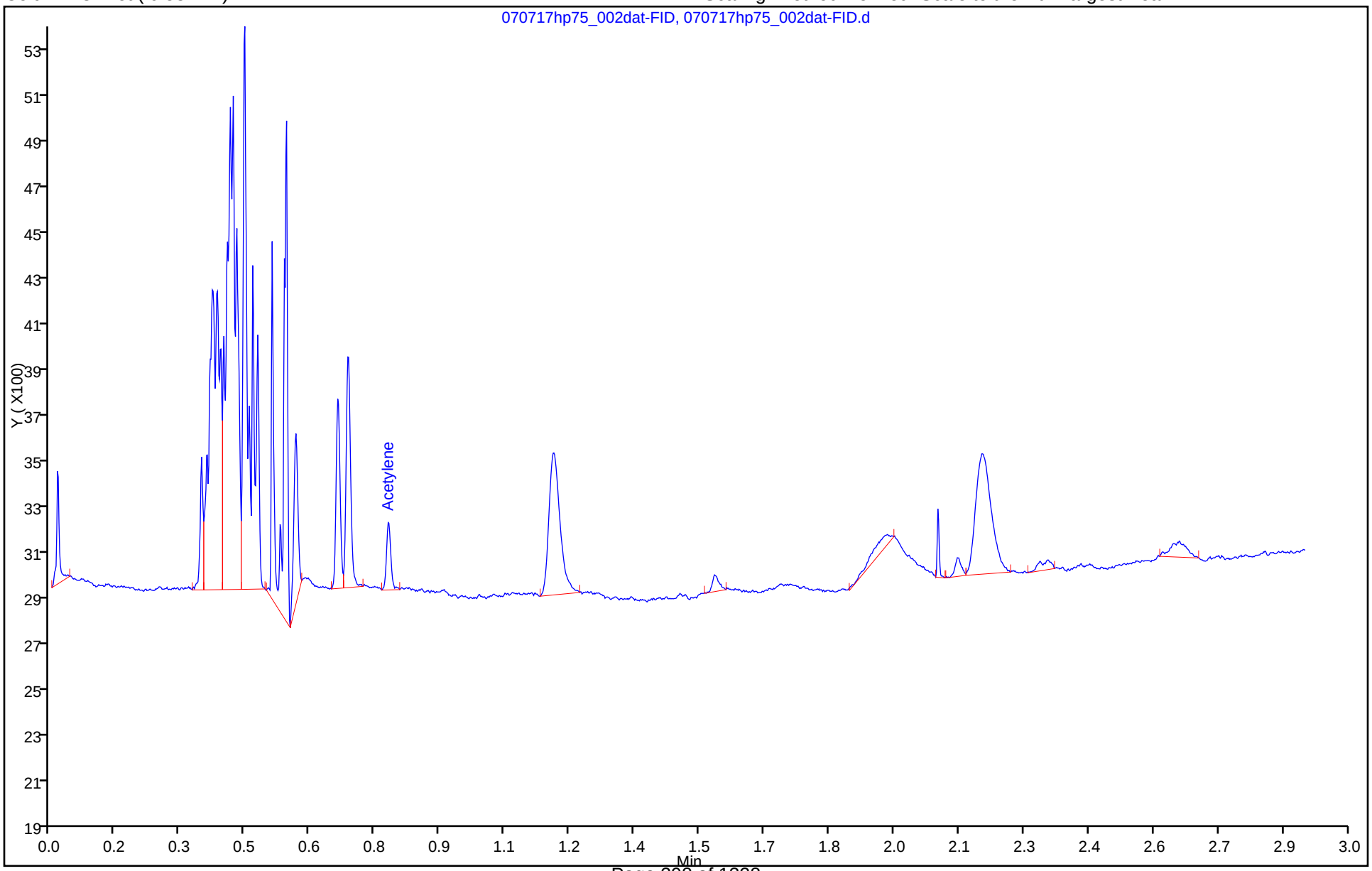
Report Date: 07-Jul-2017 15:37:49 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_002dat-FID.d

Injection Date:	07-Jul-2017 11:51:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std1			Worklist Smp#:	2
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_003dat-FID.d				
Lims ID:	std2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	07-Jul-2017 11:57:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std2				
Misc. Info.:	std2				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:49	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

First Level Reviewer: browna Date: 07-Jul-2017 15:32:08

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						M
0.782	0.783	-0.001	399	4.63	4.48	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_ACE_00004 Amount Added: 9.00 Units: uL

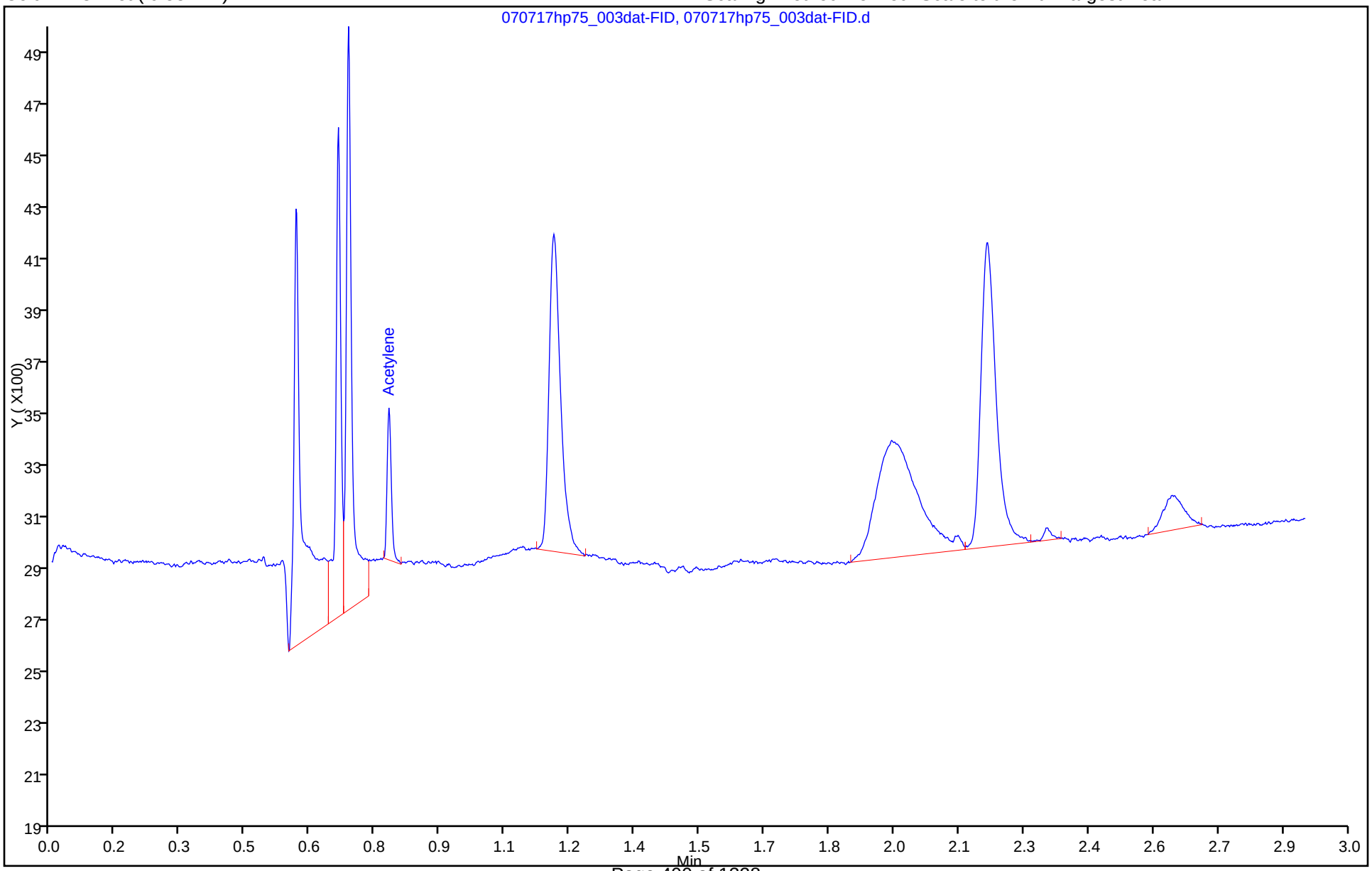
Report Date: 07-Jul-2017 15:37:49 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_003dat-FID.d

Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std2			Worklist Smp#:	3
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

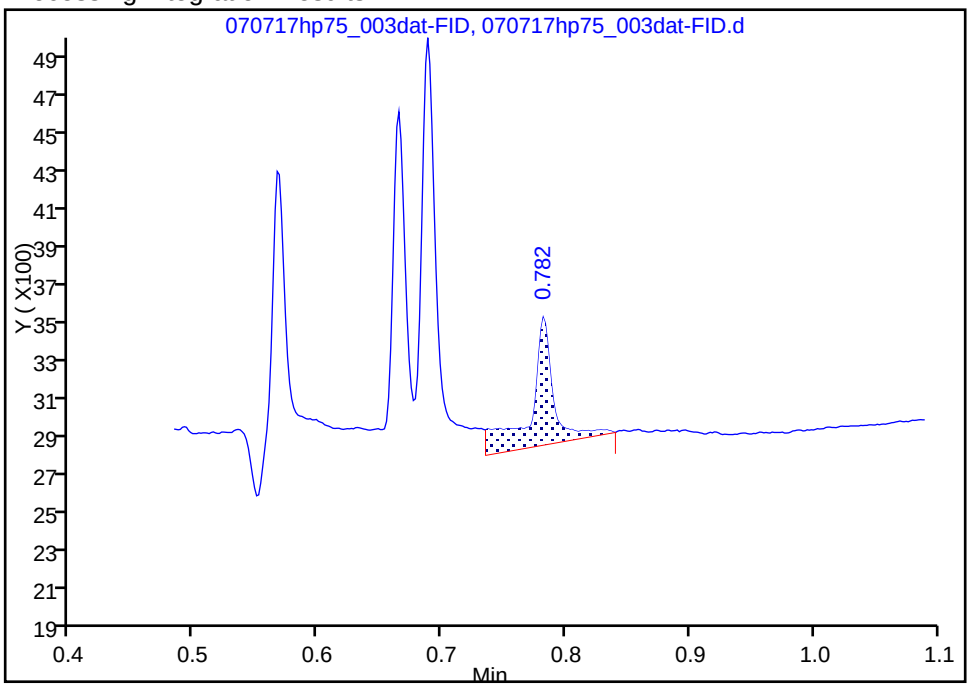
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_003dat-FID.d				
Injection Date:	07-Jul-2017 11:57:00	Instrument ID:	HP75		
Lims ID:	std2				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

5 Acetylene, CAS: 74-86-2

Signal: 1

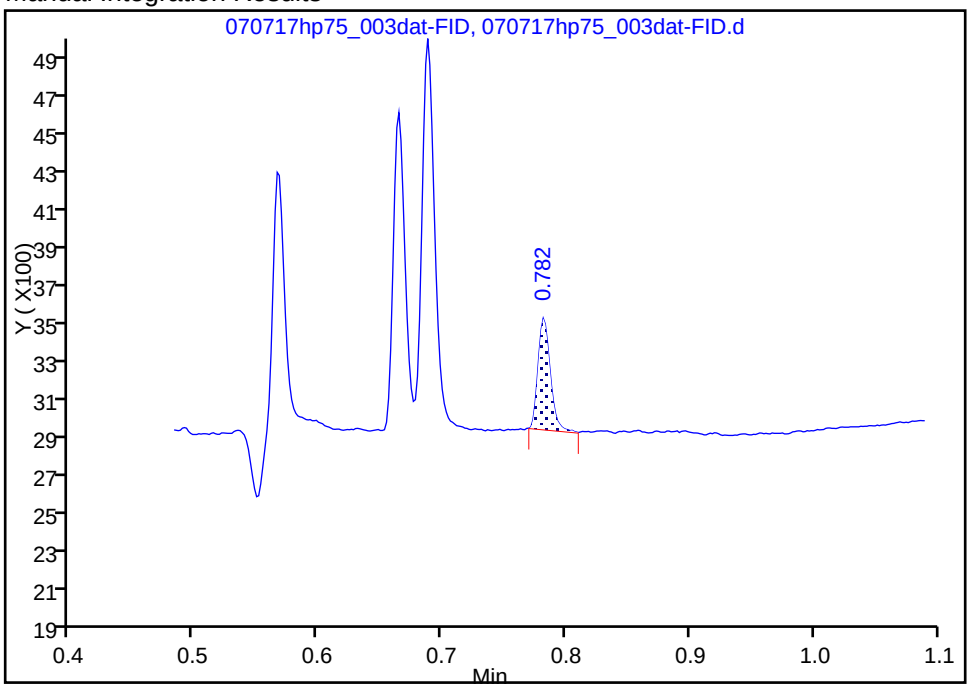
Processing Integration Results

RT: 0.78
Area: 864
Amount: 9.849462
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 399
Amount: 4.479811
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 15:31:18

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_004dat-FID.d				
Lims ID:	std3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	07-Jul-2017 12:02:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std3				
Misc. Info.:	std3				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:50	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.780	0.783	-0.003	4166	46.3	45.4	

Reagents:

RSK_ACE_00004 Amount Added: 90.00 Units: uL

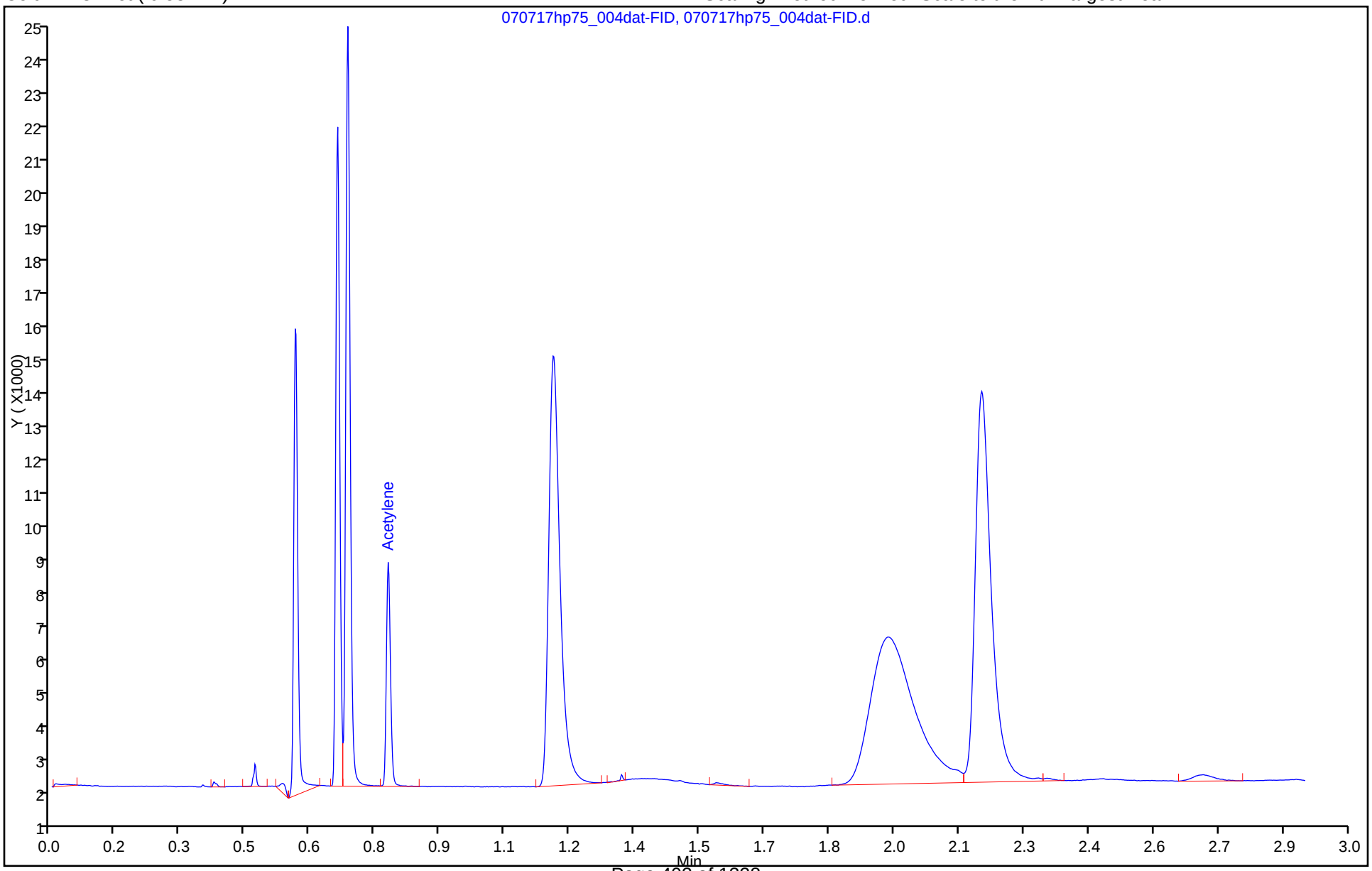
Report Date: 07-Jul-2017 15:37:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_004dat-FID.d

Injection Date:	07-Jul-2017 12:02:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std3			Worklist Smp#:	4
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_006dat-FID.d				
Lims ID:	icrt				
Client ID:					
Sample Type:	ICRT	Calib Level:	5		
Inject. Date:	07-Jul-2017 12:14:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICRT				
Misc. Info.:	ICRT				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:51	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

First Level Reviewer: browna Date: 07-Jul-2017 15:33:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						M
0.783	0.783	0.000	42278	462.9	458.9	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

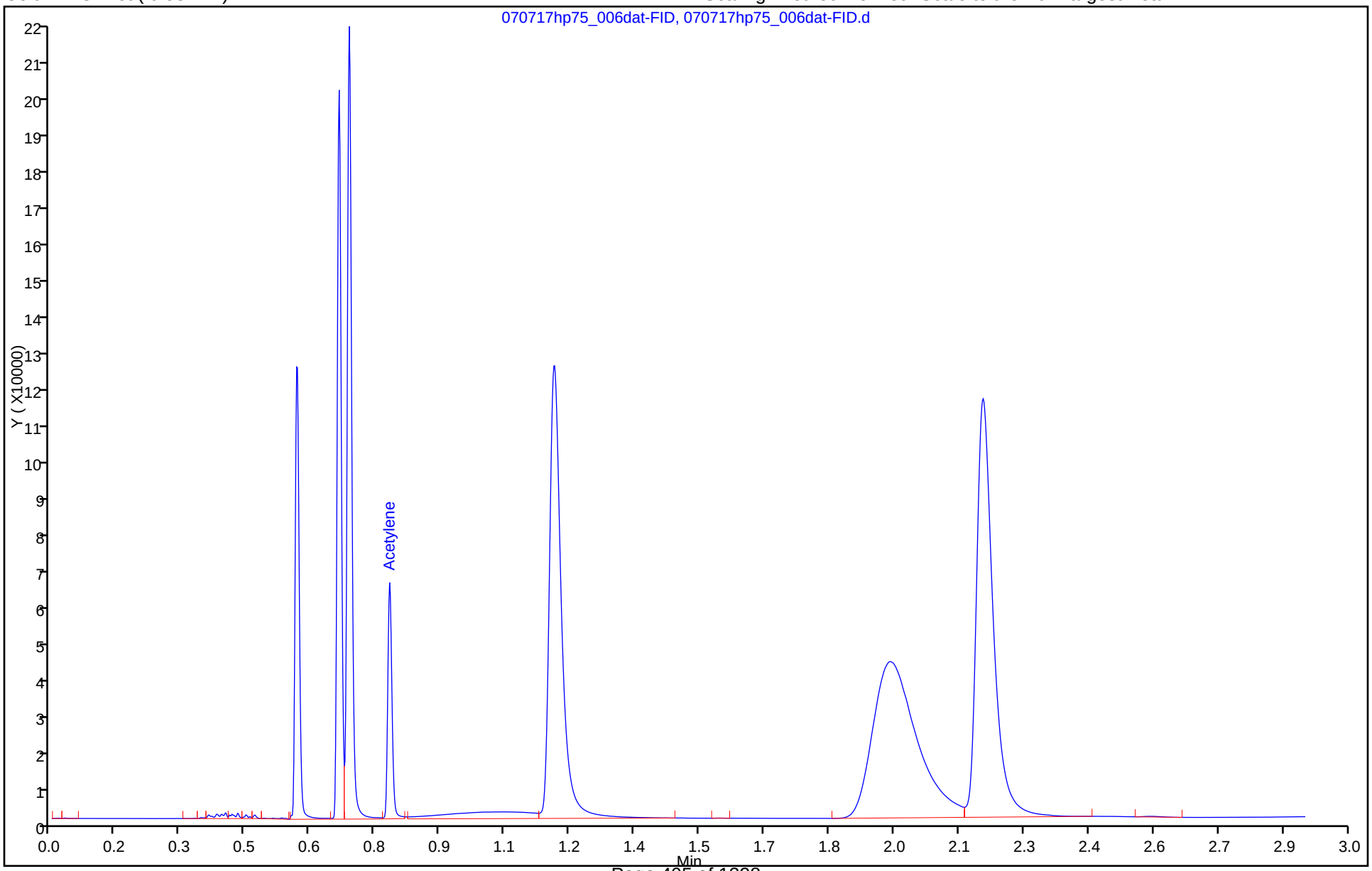
Report Date: 07-Jul-2017 15:37:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_006dat-FID.d

Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	icrt			Worklist Smp#:	6
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

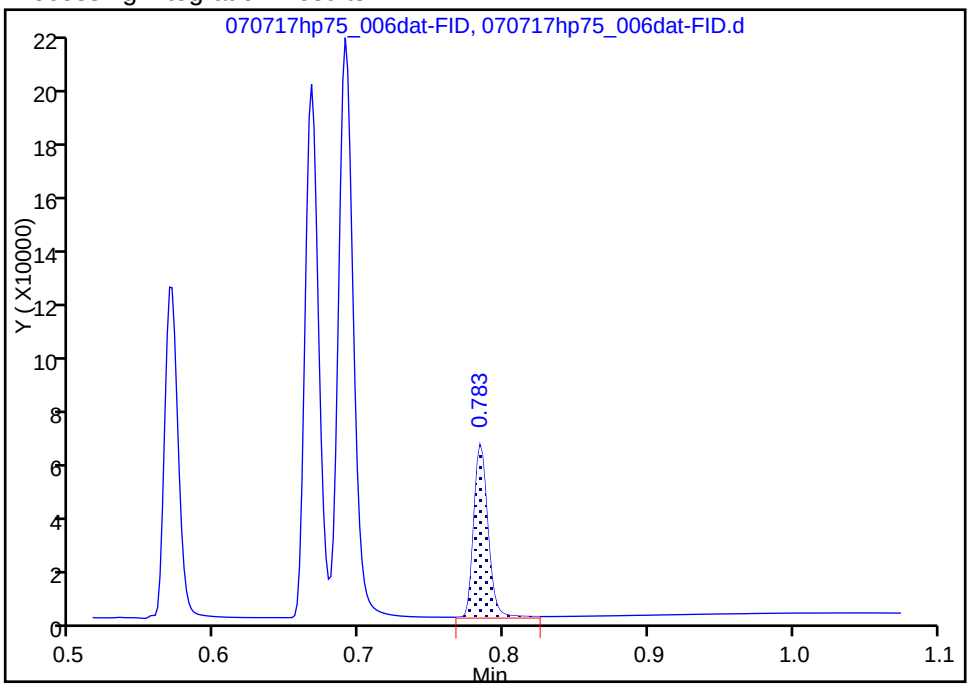
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_006dat-FID.d				
Injection Date:	07-Jul-2017 12:14:00	Instrument ID:	HP75		
Lims ID:	icrt				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

5 Acetylene, CAS: 74-86-2

Signal: 1

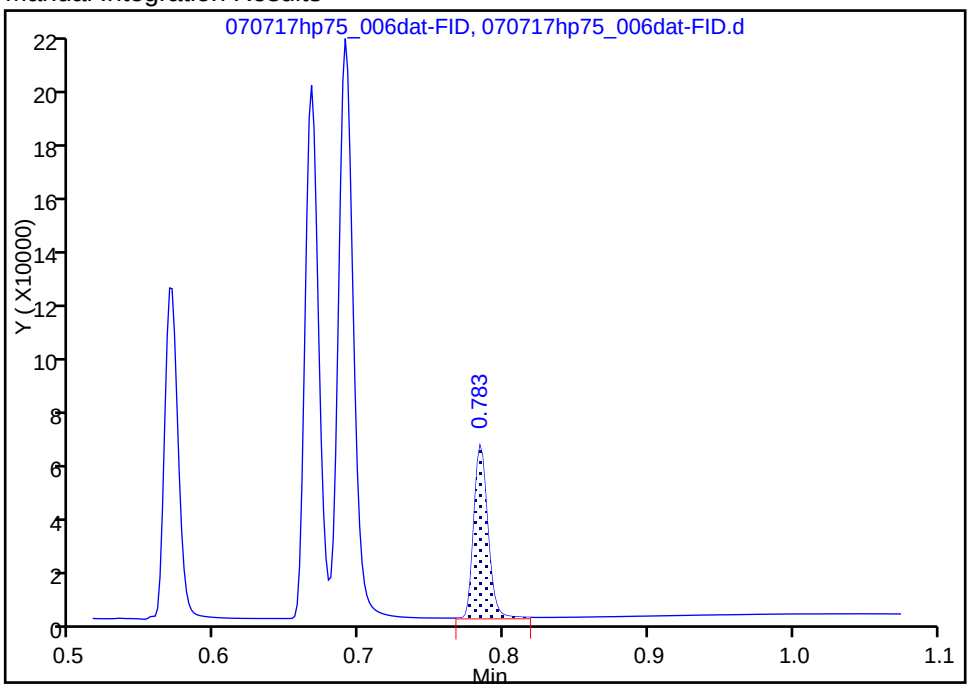
Processing Integration Results

RT: 0.78
Area: 42630
Amount: 469.0397
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 42278
Amount: 458.9303
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 15:33:23

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_007dat-FID.d				
Lims ID:	std6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	07-Jul-2017 12:29:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std6				
Misc. Info.:	std6				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:51	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.780	0.783	-0.003	83739	900.0	908.8	

Reagents:

RSK_ACE_00004 Amount Added: 1750.00 Units: uL

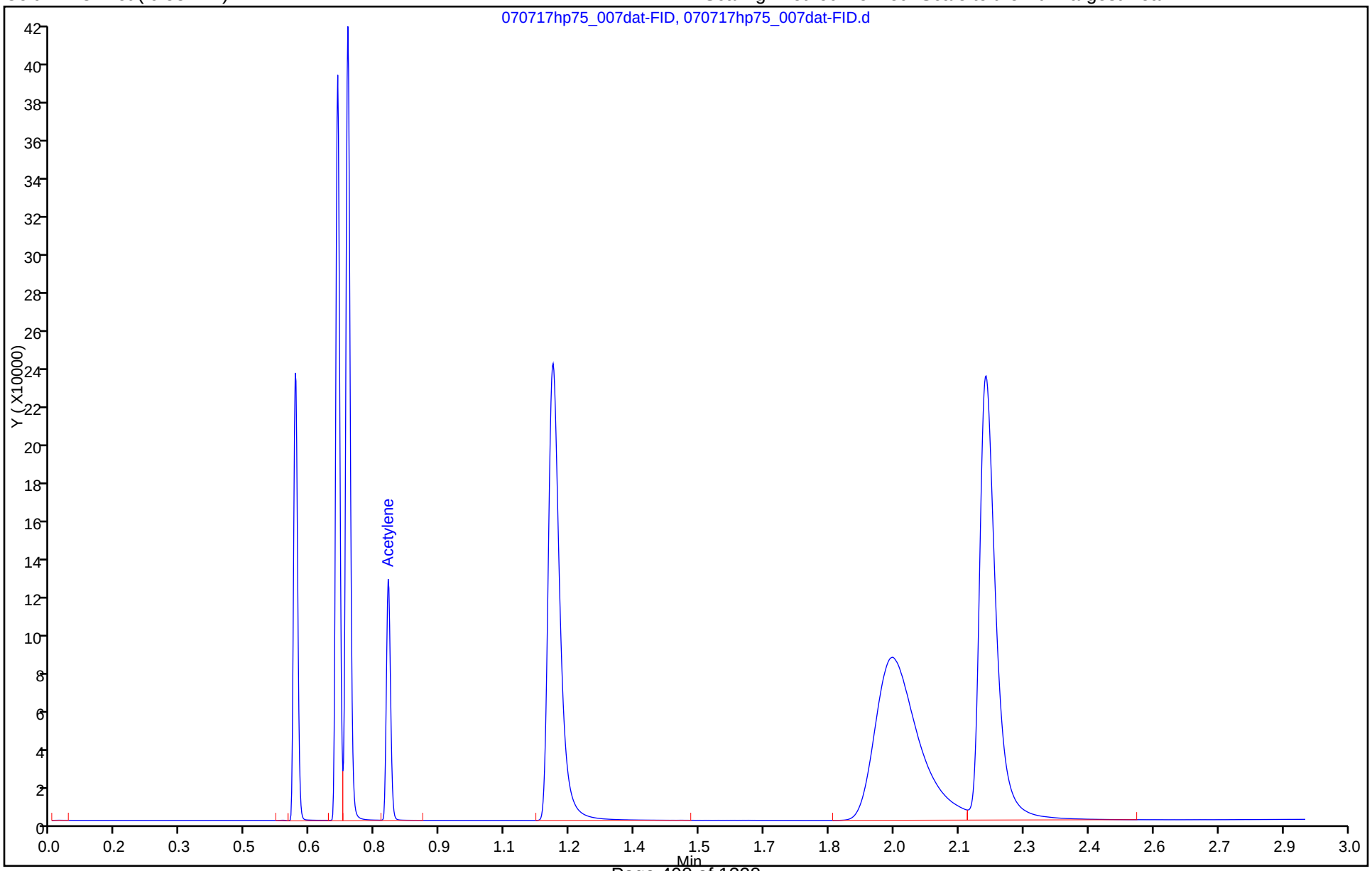
Report Date: 07-Jul-2017 15:37:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_007dat-FID.d

Injection Date:	07-Jul-2017 12:29:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std6			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_009dat-FID.d				
Lims ID:	std7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	07-Jul-2017 12:53:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std7				
Misc. Info.:	std7				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:52	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.783	0.783	0.000	106366	1131.4	1154.4	

Reagents:

RSK_ACE_00004 Amount Added: 2200.00 Units: uL

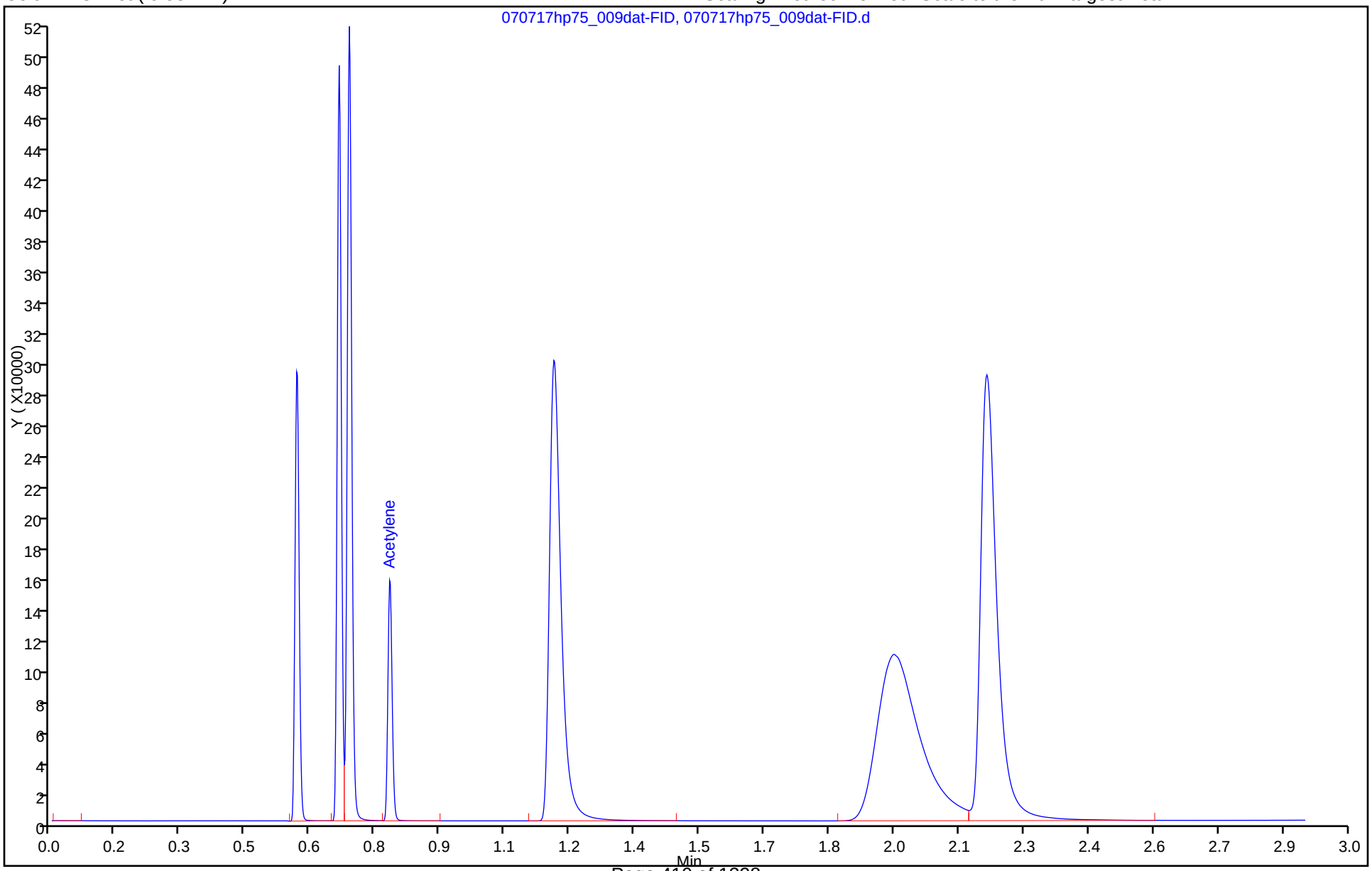
Report Date: 07-Jul-2017 15:37:52 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_009dat-FID.d

Injection Date:	07-Jul-2017 12:53:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Lims ID:	std4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	07-Jul-2017 14:03:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	std4				
Misc. Info.:	std4				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:54	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

First Level Reviewer: browna Date: 07-Jul-2017 15:35:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						M
0.778	0.783	-0.005	8395	90.0	91.2	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_ACE_00004 Amount Added: 175.00 Units: uL

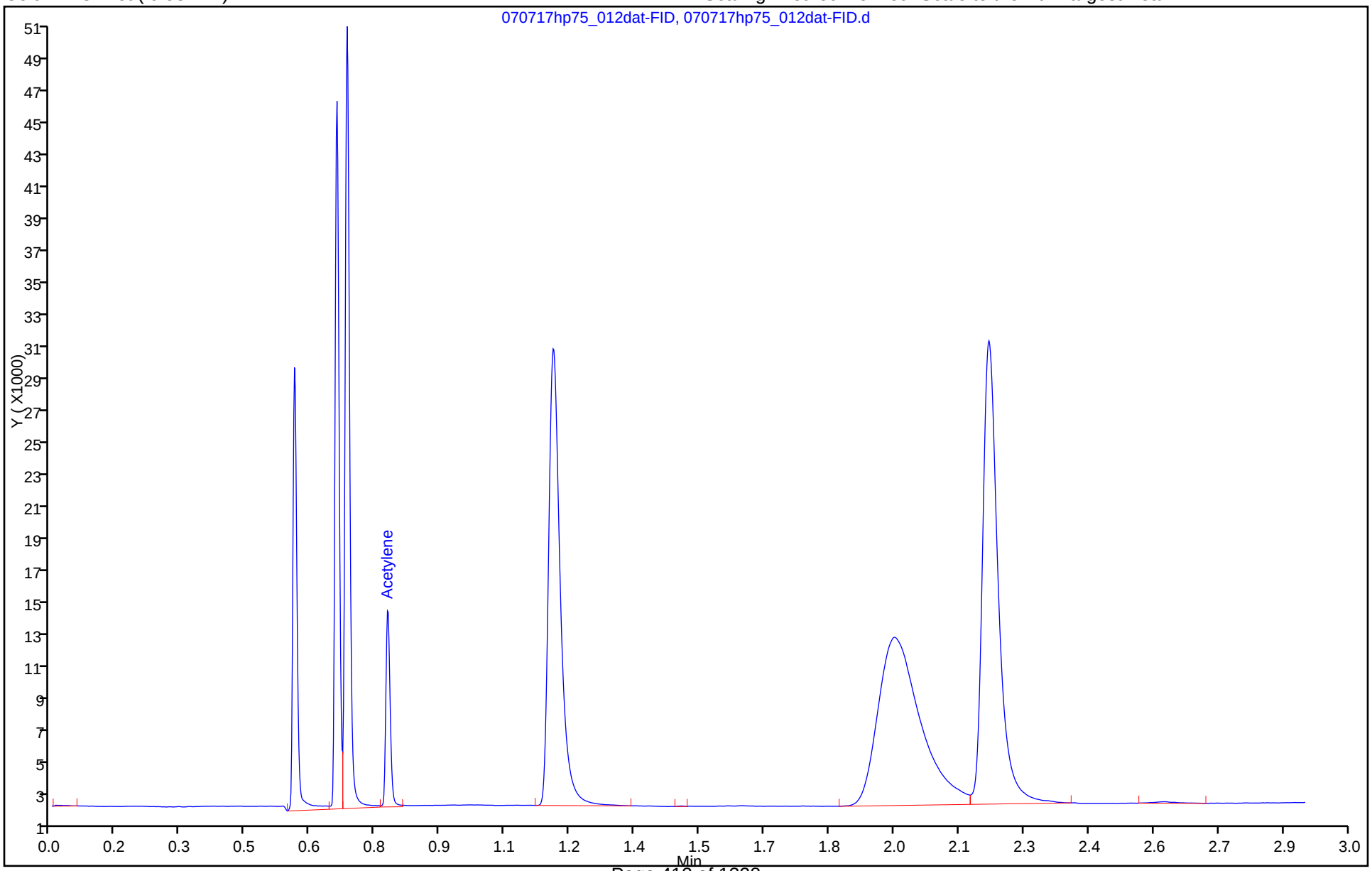
Report Date: 07-Jul-2017 15:37:54 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d

Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	std4			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

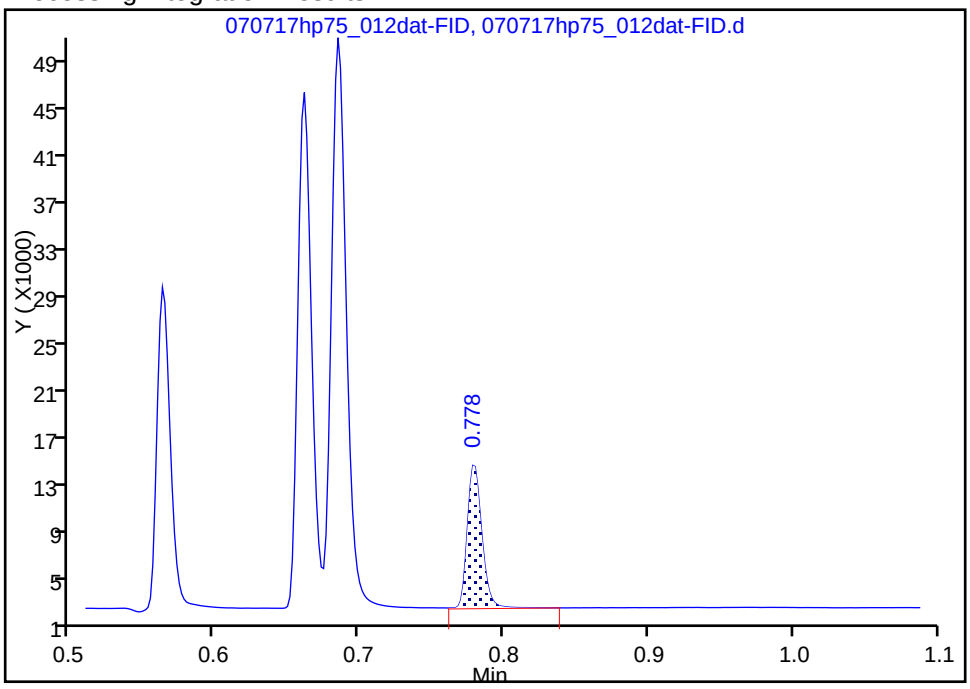
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Injection Date:	07-Jul-2017 14:03:00	Instrument ID:	HP75		
Lims ID:	std4				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

5 Acetylene, CAS: 74-86-2

Signal: 1

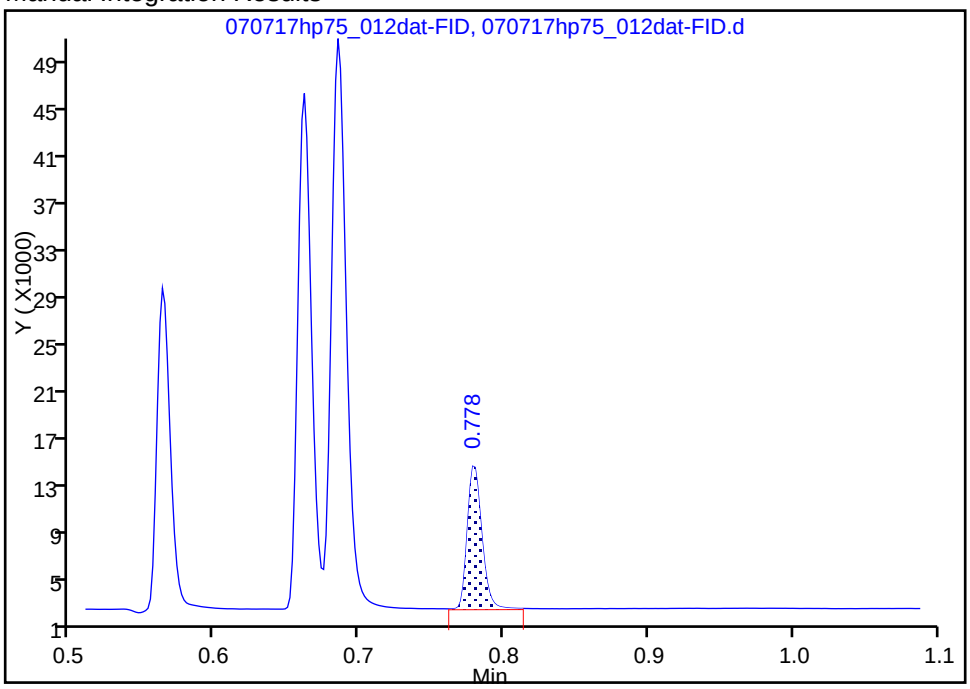
Processing Integration Results

RT: 0.78
Area: 8382
Amount: 92.333941
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 8395
Amount: 91.248503
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 15:34:57

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 490-443329/14 Calibration Date: 07/07/2017 14:22

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 070717hp75_014dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		269.5		271	287	-5.7	20.0
Ethene	Lin1		249.7		470	493	-4.7	20.0
Ethane	Lin2		278.1		496	527	-5.9	20.0
Propane	Lin2		286.9		733	771	-5.0	20.0
Propane, 2-methyl	Lin2		298.9		1000	1020	-1.8	20.0
Butane	Lin2		296.0		977	1020	-4.3	20.0
Acetylene (Surr)	Lin2		88.78		447	463	-3.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 490-443329/14 Calibration Date: 07/07/2017 14:22

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 070717hp75_014dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.57	0.54	0.60
Ethene	0.67	0.64	0.70
Ethane	0.69	0.66	0.72
Propane	1.17	1.14	1.20
Propane, 2-methyl	1.96	1.91	1.97
Butane	2.17	2.13	2.19
Acetylene (Surr)	0.79	0.75	0.81

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 07-Jul-2017 14:22:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: ICV
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist:

Method: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 07-Jul-2017 15:11:26 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK002

First Level Reviewer: browna Date: 07-Jul-2017 15:07:10

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.567	0.568	-0.001	77267	286.7	270.5	M
	2 Ethylene						M
	0.667	0.667	0.000	123051	492.9	469.8	M
	3 Ethane						M
	0.692	0.690	0.002	146607	527.1	495.8	M
$	4 Acetylene (Surr)						M
	0.788	0.783	0.005	41092	462.9	447.1	M
	6 Propane						
	1.173	1.165	0.008	221342	771.4	733.1	
	7 Propane, 2-methyl						
	1.957	1.942	0.015	304898	1020.0	1001.7	
	8 Butane						
	2.173	2.157	0.016	301965	1020.0	976.5	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL
RSK_VER 8COMP_00001 Amount Added: 900.00 Units: uL

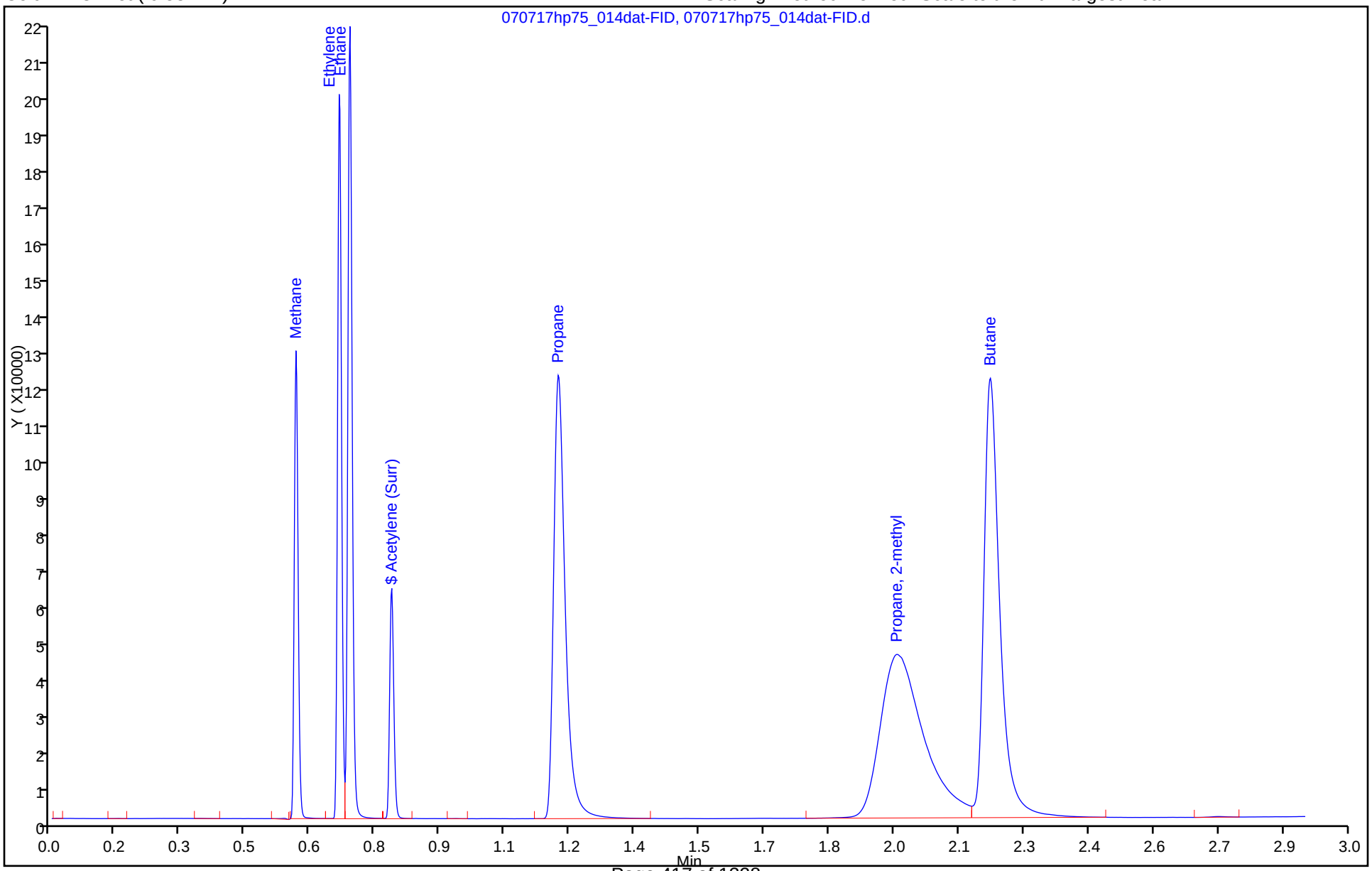
Report Date: 07-Jul-2017 15:11:28 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d

Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

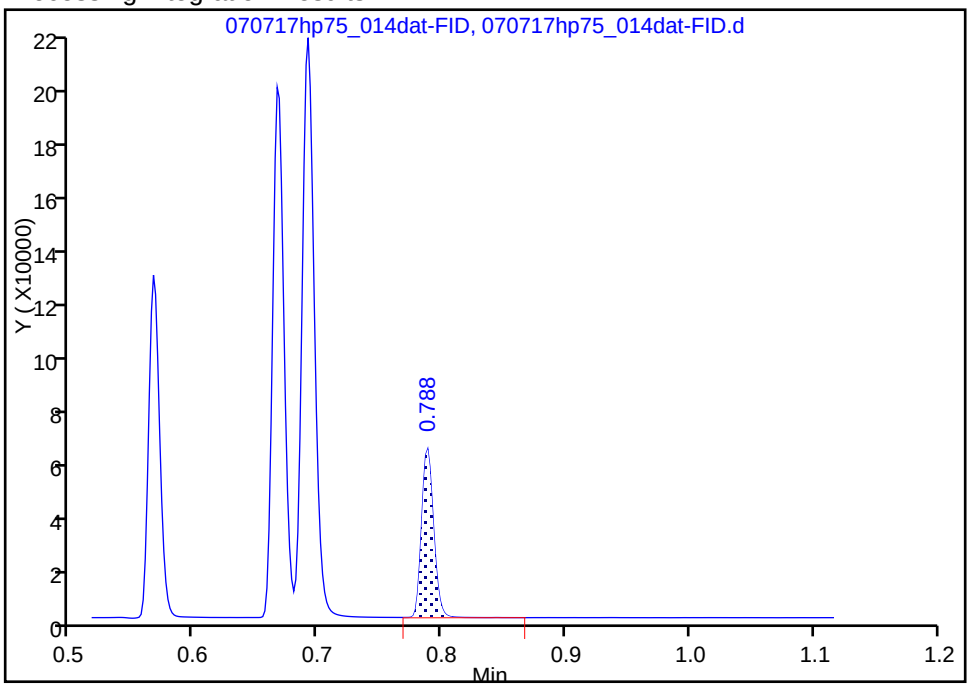
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	ICV				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

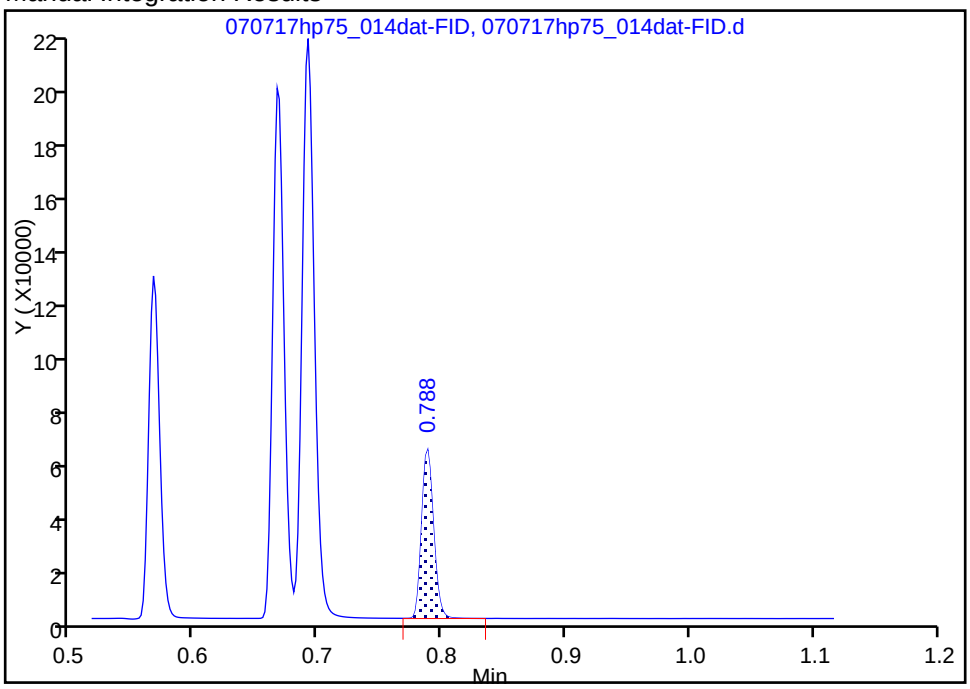
Processing Integration Results

RT: 0.79
Area: 41315
Amount: 449.5664
Amount Units: ug/l



Manual Integration Results

RT: 0.79
Area: 41092
Amount: 447.1405
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:29:48

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

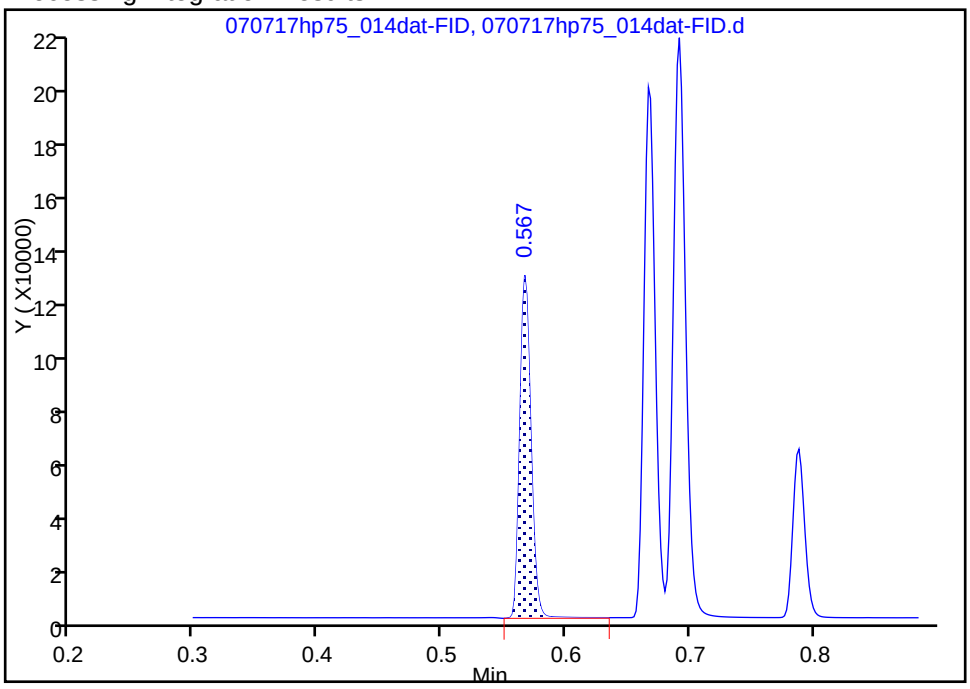
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	ICV				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

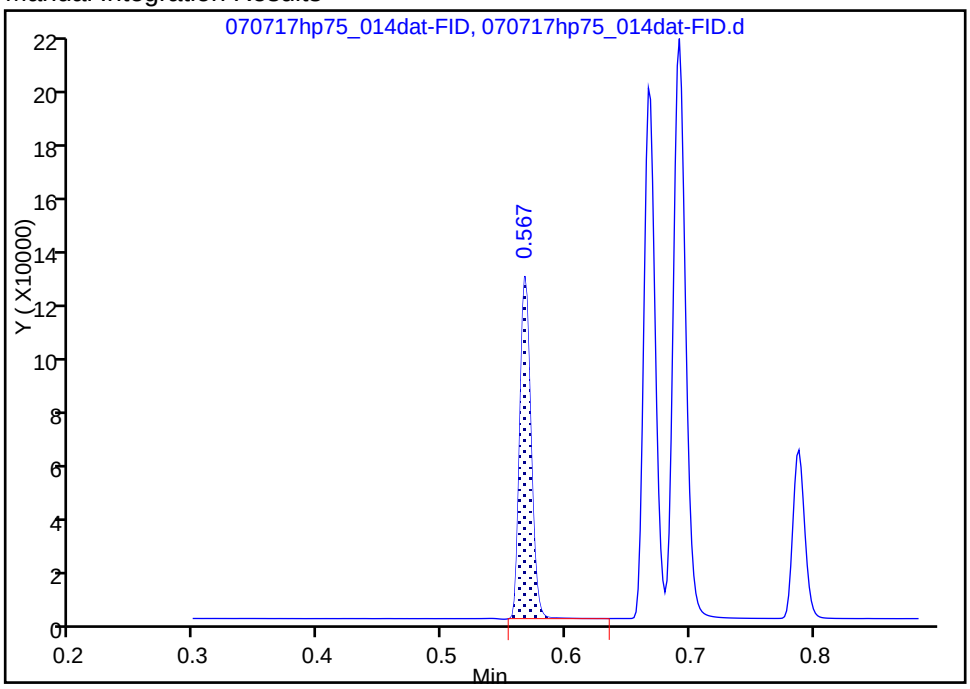
Processing Integration Results

RT: 0.57
Area: 78167
Amount: 273.6572
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 77267
Amount: 270.5040
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:29:21

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

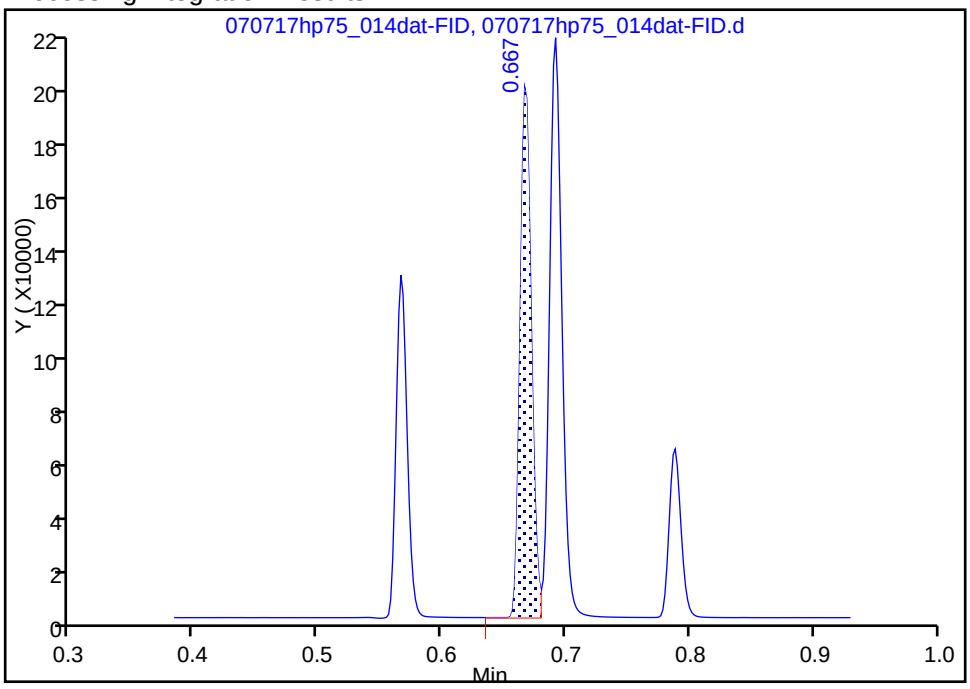
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	ICV				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

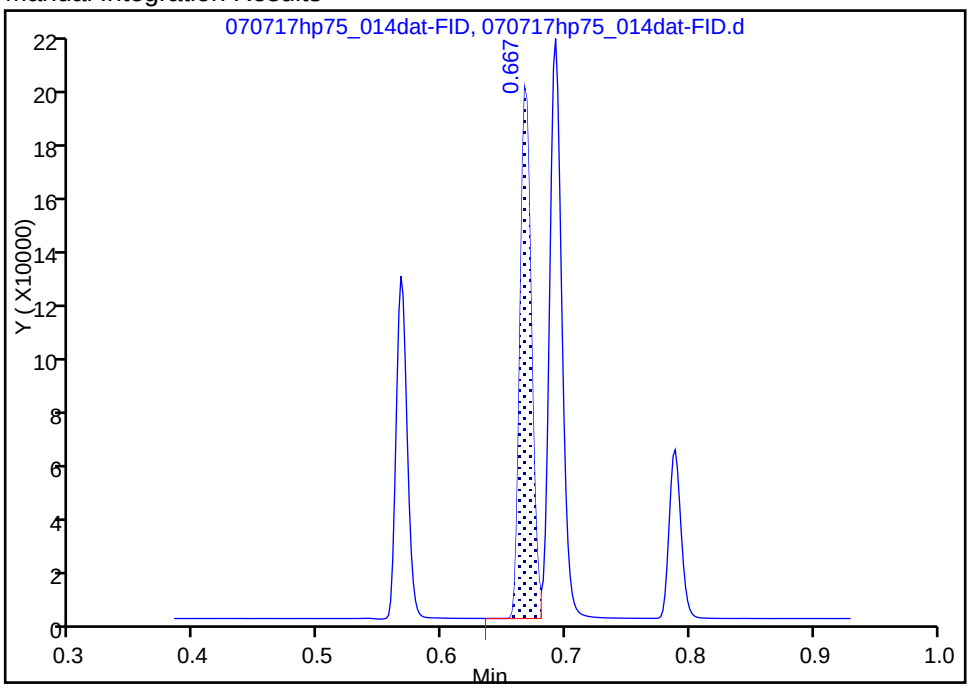
Processing Integration Results

RT: 0.67
Area: 123380
Amount: 471.0968
Amount Units: ug/l



Manual Integration Results

RT: 0.67
Area: 123051
Amount: 469.8420
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:29:29

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

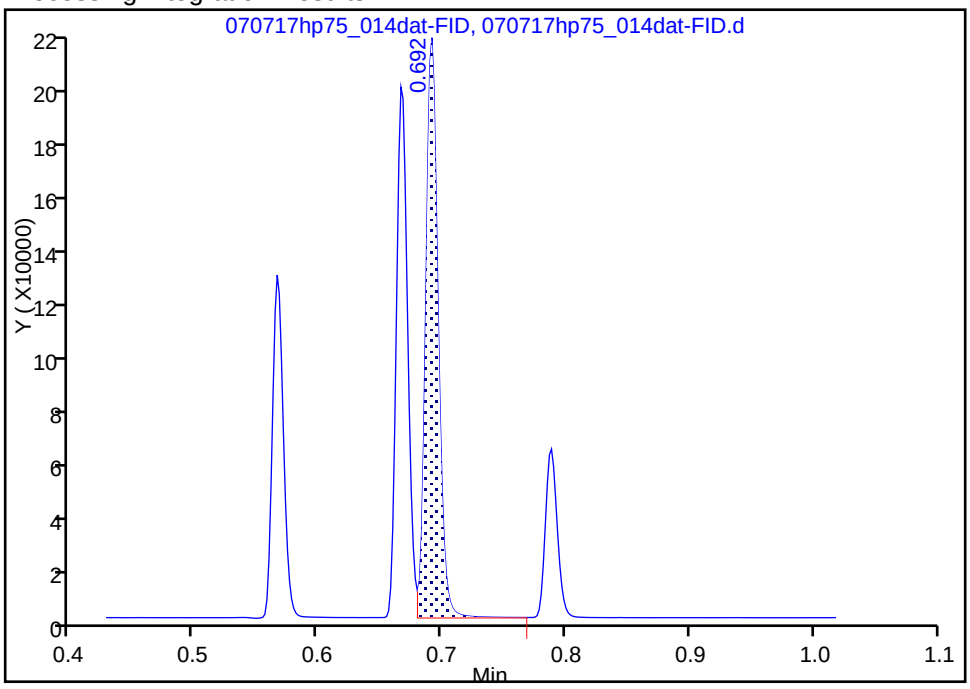
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	ICV				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

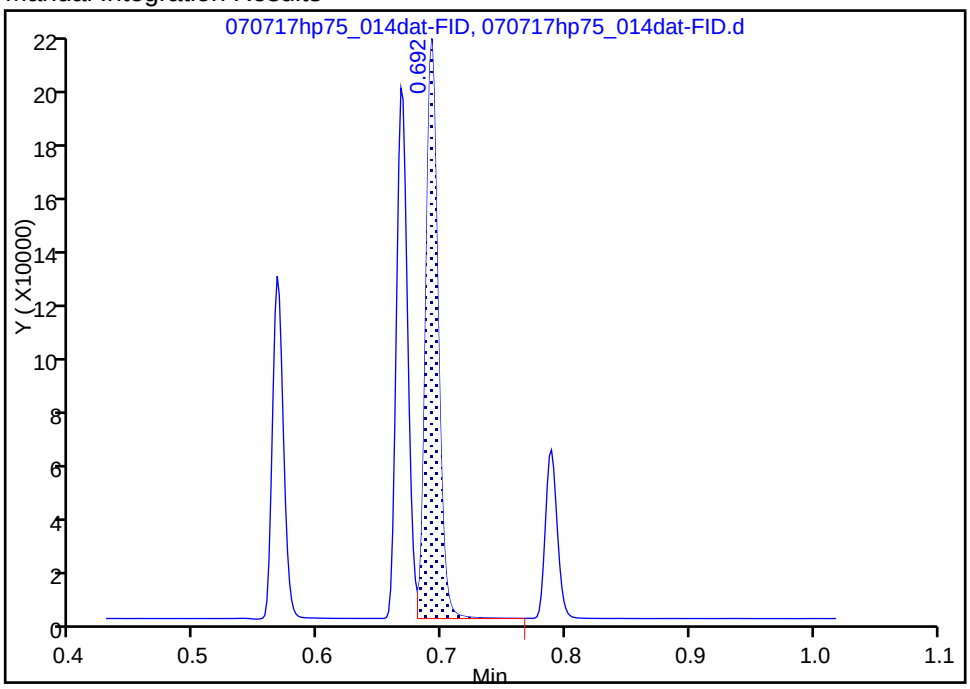
Processing Integration Results

RT: 0.69
Area: 147099
Amount: 497.5109
Amount Units: ug/l



Manual Integration Results

RT: 0.69
Area: 146607
Amount: 495.8476
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:29:37

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

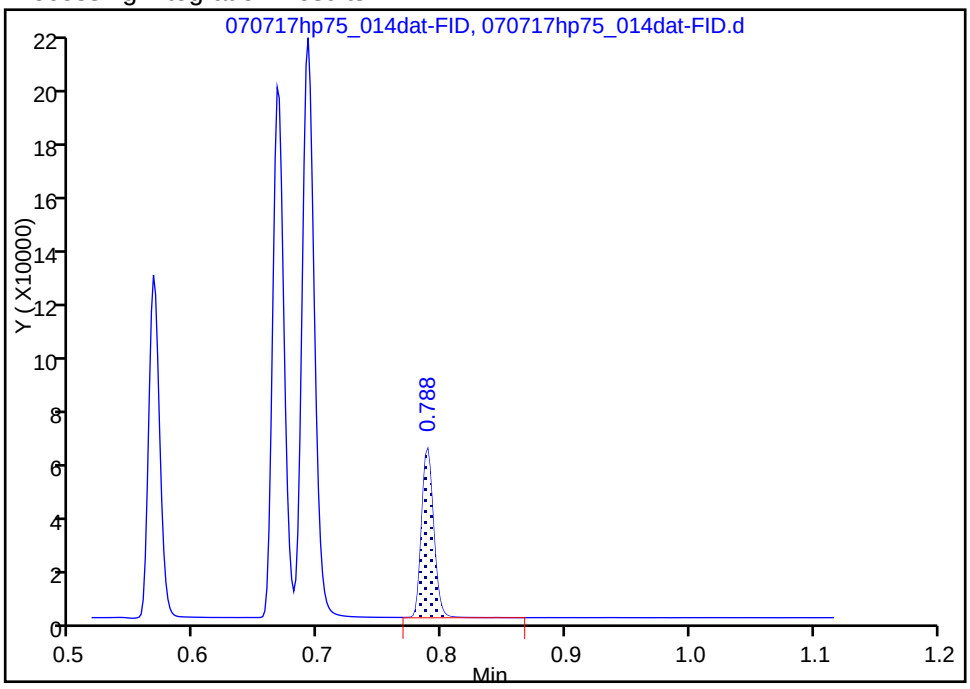
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	ICV				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

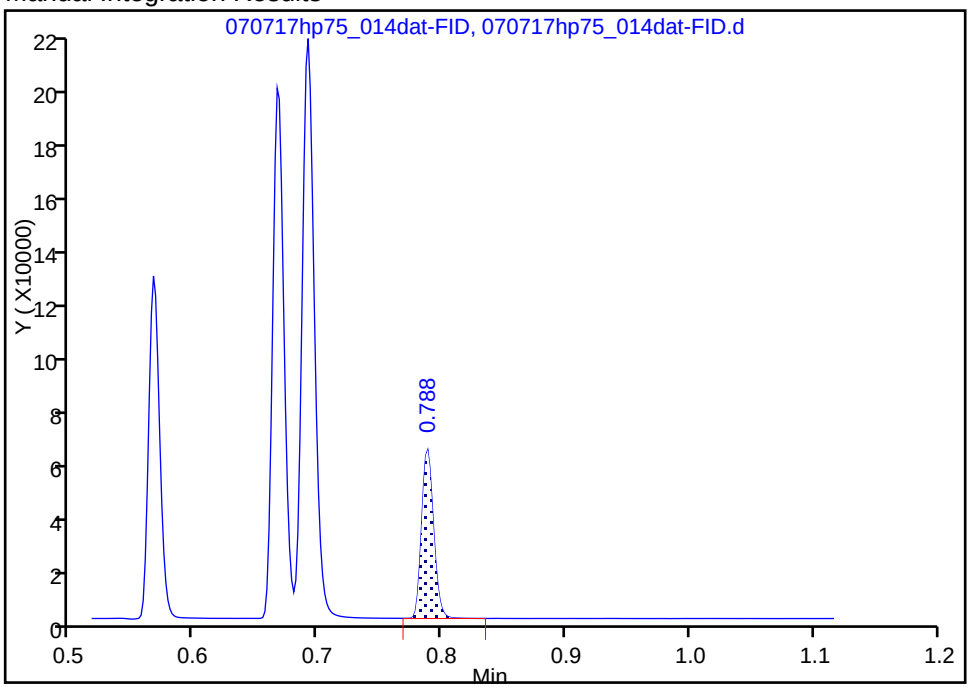
Processing Integration Results

RT: 0.79
Area: 41315
Amount: 449.5664
Amount Units: ug/l



Manual Integration Results

RT: 0.79
Area: 41092
Amount: 447.1405
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 14:29:48

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 490-443459/14 Calibration Date: 07/07/2017 14:22

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 070717hp75_014dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetylene	Lin2		89.18		448	463	-3.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICV 490-443459/14 Calibration Date: 07/07/2017 14:22

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 070717hp75_014dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Acetylene	0.79	0.78	0.84

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_014dat-FID.d				
Lims ID:	icv				
Client ID:					
Sample Type:	ICV				
Inject. Date:	07-Jul-2017 14:22:00	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV				
Misc. Info.:	ICV				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:					
Method:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	07-Jul-2017 15:37:54	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK002				

First Level Reviewer: browna Date: 07-Jul-2017 15:37:26

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						M
0.788	0.783	0.005	41278	462.9	448.1	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

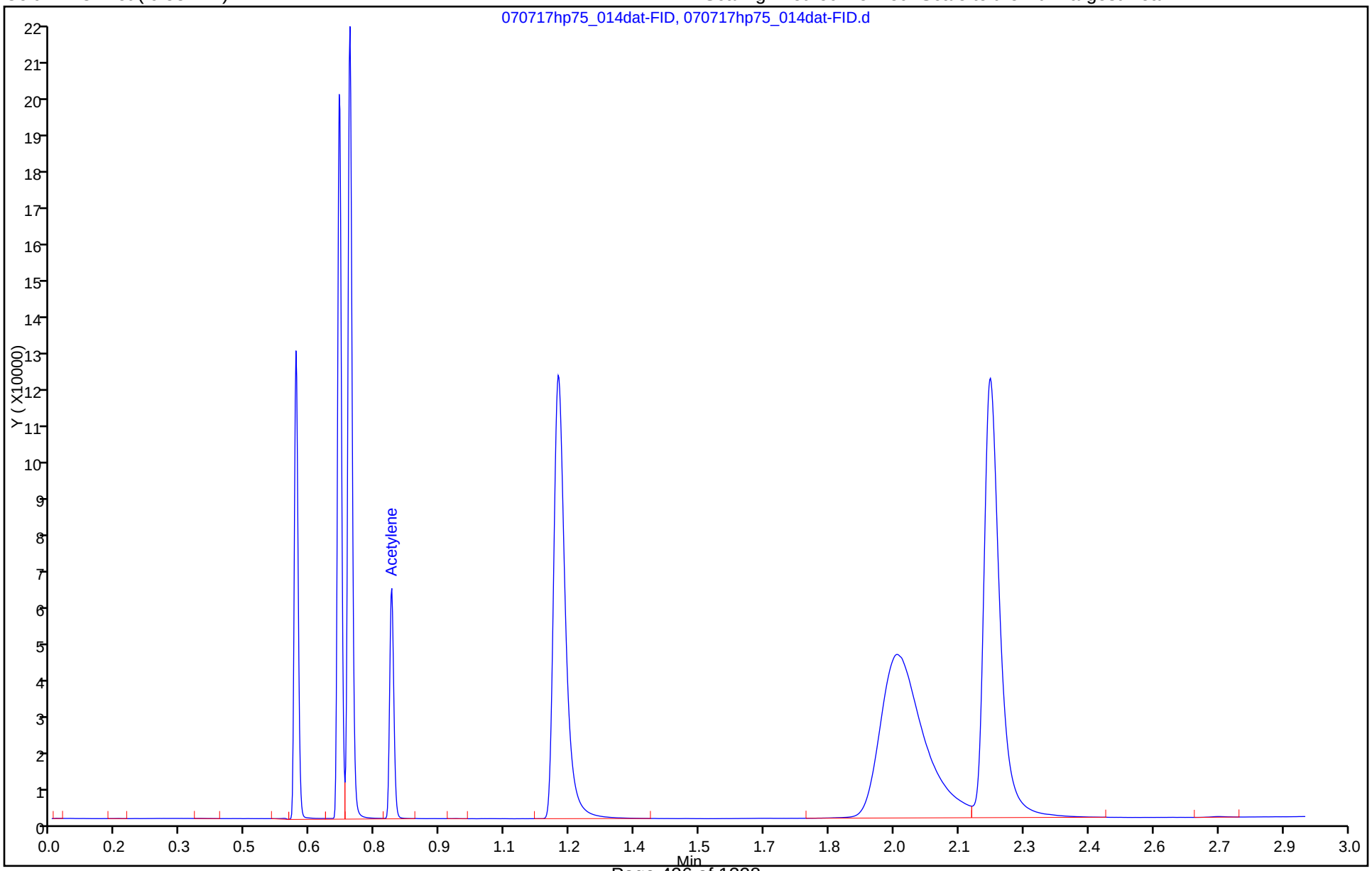
Report Date: 07-Jul-2017 15:37:55 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_014dat-FID.d

Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	icv			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

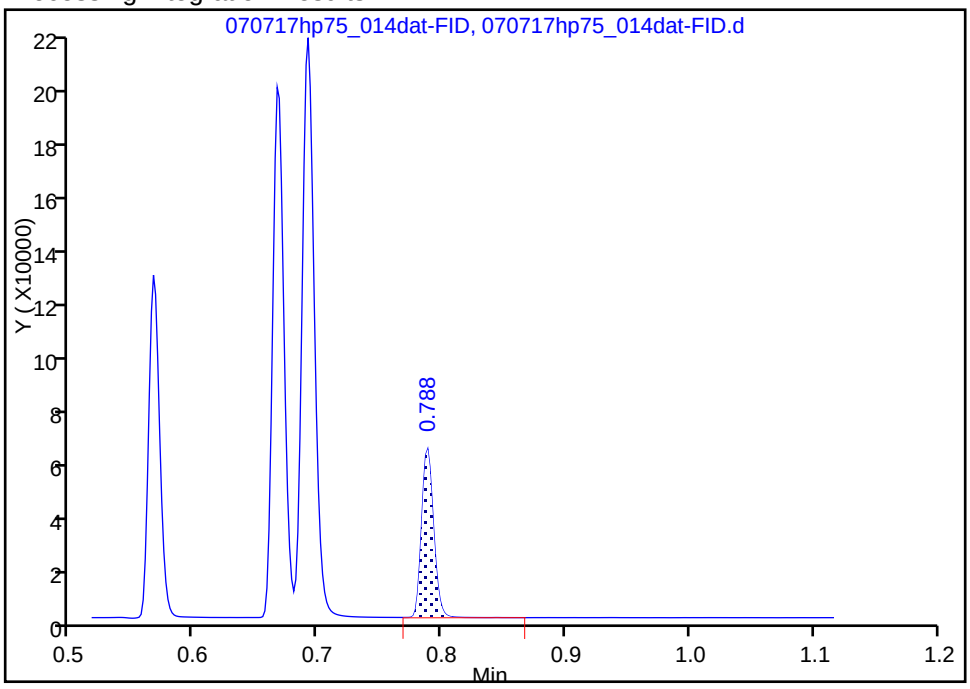
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_014dat-FID.d				
Injection Date:	07-Jul-2017 14:22:00	Instrument ID:	HP75		
Lims ID:	icv				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

5 Acetylene, CAS: 74-86-2

Signal: 1

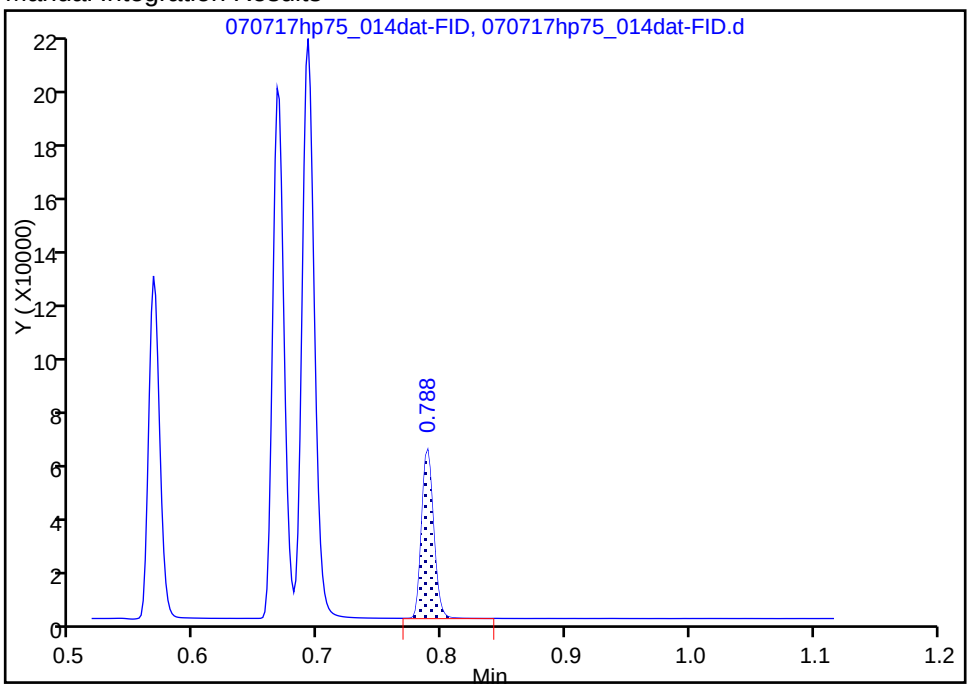
Processing Integration Results

RT: 0.79
Area: 41315
Amount: 448.4803
Amount Units: ug/l



Manual Integration Results

RT: 0.79
Area: 41278
Amount: 448.0788
Amount Units: ug/l



Reviewer: browna, 07-Jul-2017 15:37:08

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVRT 490-445410/5 Calibration Date: 07/17/2017 11:55

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071717hp75_005dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		299.9		301	287	5.0	20.0
Ethene	Lin1		295.0		555	493	12.6	20.0
Ethane	Lin2		324.6		579	527	9.8	20.0
Propane	Lin2		338.9		866	771	12.2	20.0
Propane, 2-methyl	Lin2		346.6		1160	1020	13.9	20.0
Butane	Lin2		355.3		1170	1020	14.9	20.0
Acetylene (Surr)	Lin2		99.29		500	463	8.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVRT 490-445410/5 Calibration Date: 07/17/2017 11:55

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071717hp75_005dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.56	0.53	0.59
Ethene	0.66	0.63	0.69
Ethane	0.68	0.65	0.71
Propane	1.15	1.12	1.18
Propane, 2-methyl	1.92	1.90	1.96
Butane	2.14	2.12	2.18
Acetylene (Surr)	0.78	0.74	0.80

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_005dat-FID.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	17-Jul-2017 11:55:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccvrt				
Misc. Info.:	ccvrt				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub1				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:06:56		

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						
	0.563	0.563	0.000	85987	286.7	301.1	
	2 Ethylene						
	0.660	0.660	0.000	145401	492.9	555.1	
	3 Ethane						
	0.683	0.683	0.000	171120	527.1	578.7	
$	4 Acetylene (Surr)						
	0.775	0.775	0.000	45955	462.9	500.0	
	6 Propane						
	1.153	1.153	0.000	261436	771.4	865.8	
	7 Propane, 2-methyl						
	1.922	1.922	0.000	353539	1020.0	1161.4	
	8 Butane						
	2.135	2.135	0.000	362411	1020.0	1171.8	

Reagents:

RSK_sur_ACE_00004	Amount Added: 900.00	Units: uL
RSK_8COMP_00007	Amount Added: 900.00	Units: uL

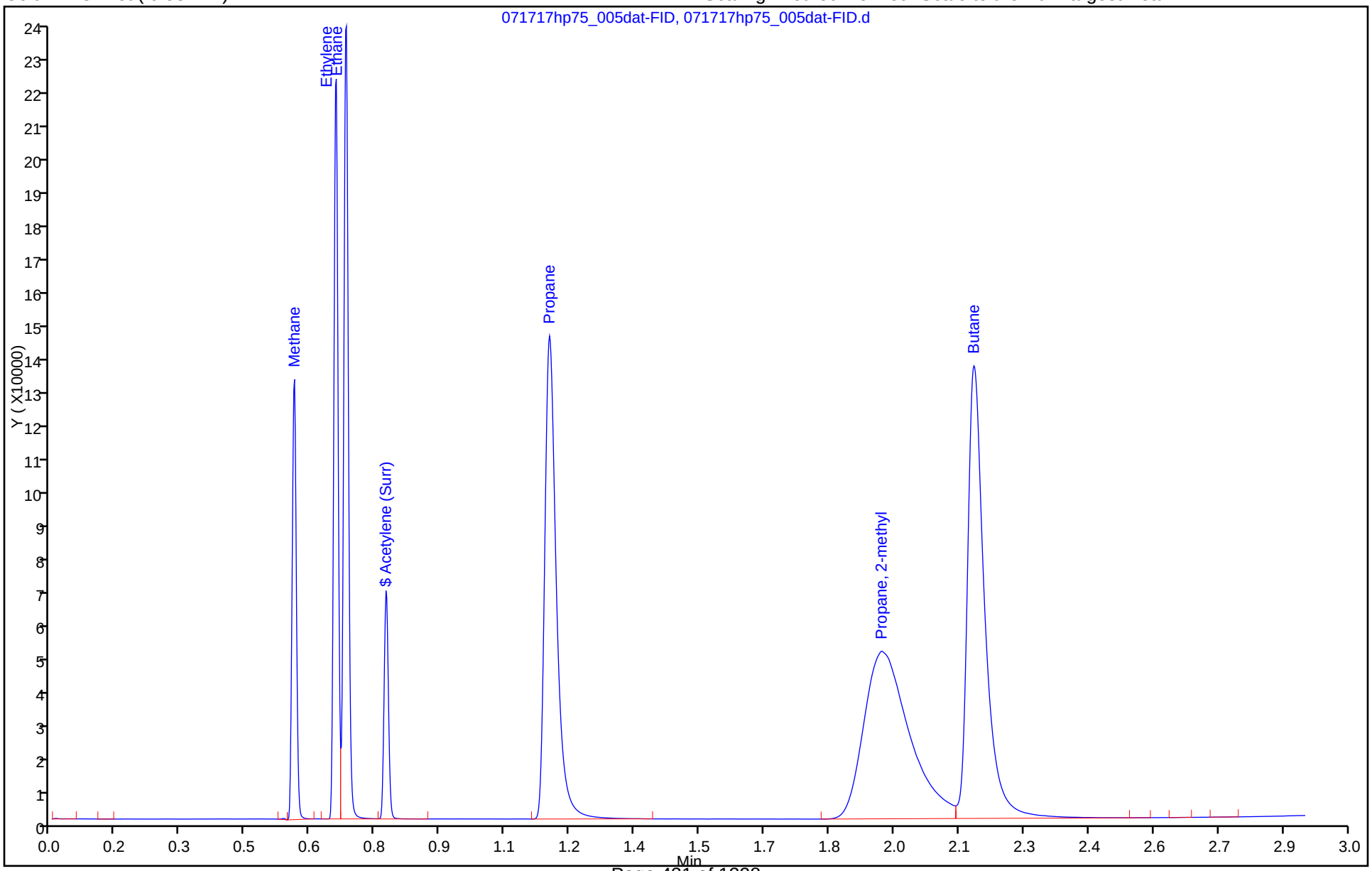
Report Date: 17-Jul-2017 14:33:12 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_005dat-FID.d

Injection Date:	17-Jul-2017 11:55:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccvrt			Worklist Smp#:	5
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCV 490-445410/22 Calibration Date: 07/17/2017 14:32

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071717hp75_022dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		300.5		302	287	5.2	20.0
Ethene	Lin1		298.1		561	493	13.8	20.0
Ethane	Lin2		326.3		582	527	10.4	20.0
Propane	Lin2		341.7		873	771	13.2	20.0
Propane, 2-methyl	Lin2		348.9		1170	1020	14.6	20.0
Butane	Lin2		356.8		1180	1020	15.4	20.0
Acetylene (Surr)	Lin2		100.2		504	463	9.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCV 490-445410/22 Calibration Date: 07/17/2017 14:32

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071717hp75_022dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.56	0.53	0.59
Ethene	0.66	0.63	0.69
Ethane	0.68	0.65	0.71
Propane	1.16	1.12	1.18
Propane, 2-methyl	1.93	1.90	1.96
Butane	2.14	2.12	2.18
Acetylene (Surr)	0.78	0.74	0.80

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_022dat-FID.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Jul-2017 14:32:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ccv
Misc. Info.: ccv
Operator ID: Brown, Antoinette (Instrument ID: HP75
Sublist: chrom-RSK175LONG*sub1

Method: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 17-Jul-2017 14:44:40 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK001

First Level Reviewer: browna Date: 17-Jul-2017 14:44:36

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.563	0.563	0.000	86152	286.7	301.6	M
	2 Ethylene						
	0.660	0.660	0.000	146901	492.9	560.8	
	3 Ethane						
	0.683	0.683	0.000	172018	527.1	581.8	
$	4 Acetylene (Surr)						
	0.777	0.775	0.002	46358	462.9	504.4	
	6 Propane						
	1.157	1.153	0.004	263609	771.4	873.0	
	7 Propane, 2-methyl						
	1.925	1.922	0.003	355832	1020.0	1168.9	
	8 Butane						
	2.140	2.135	0.005	363911	1020.0	1176.7	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL
RSK_8COMP_00007 Amount Added: 900.00 Units: uL

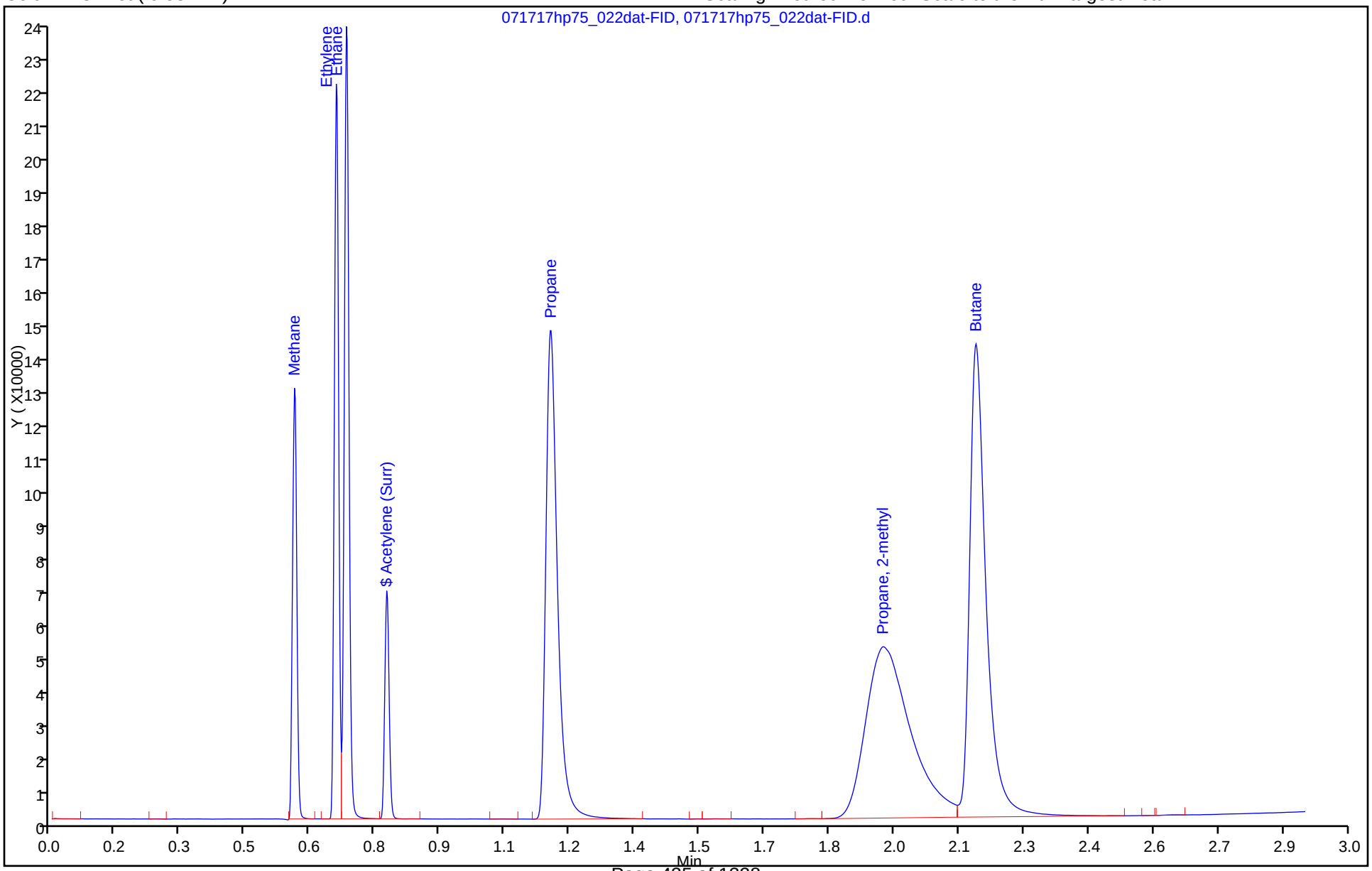
Report Date: 17-Jul-2017 14:44:41 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_022dat-FID.d

Injection Date:	17-Jul-2017 14:32:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccv			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

TestAmerica Nashville

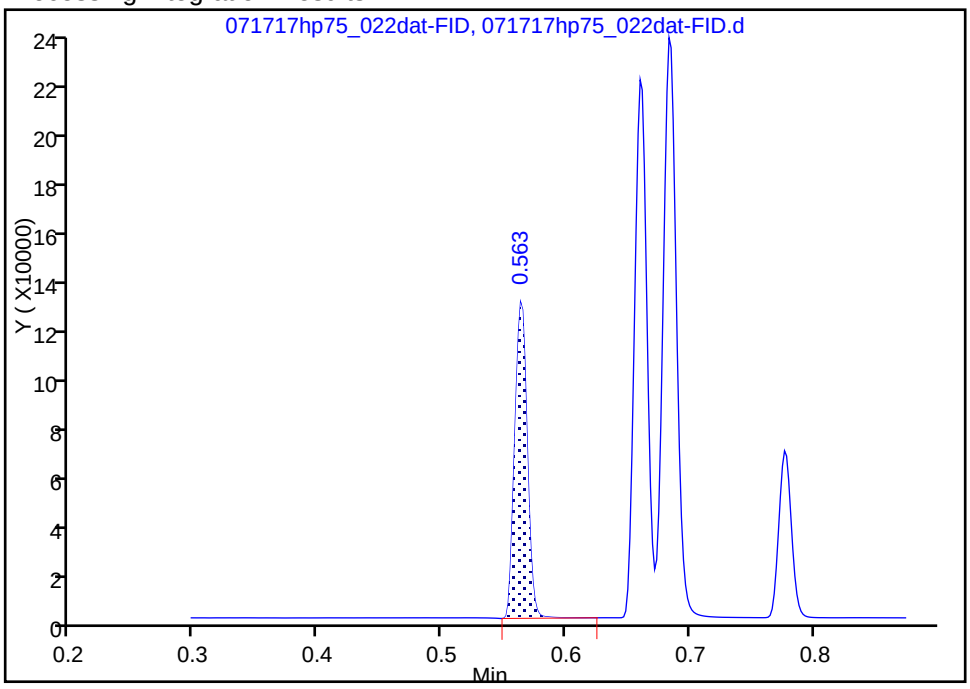
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_022dat-FID.d				
Injection Date:	17-Jul-2017 14:32:00	Instrument ID:	HP75		
Lims ID:	ccv				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

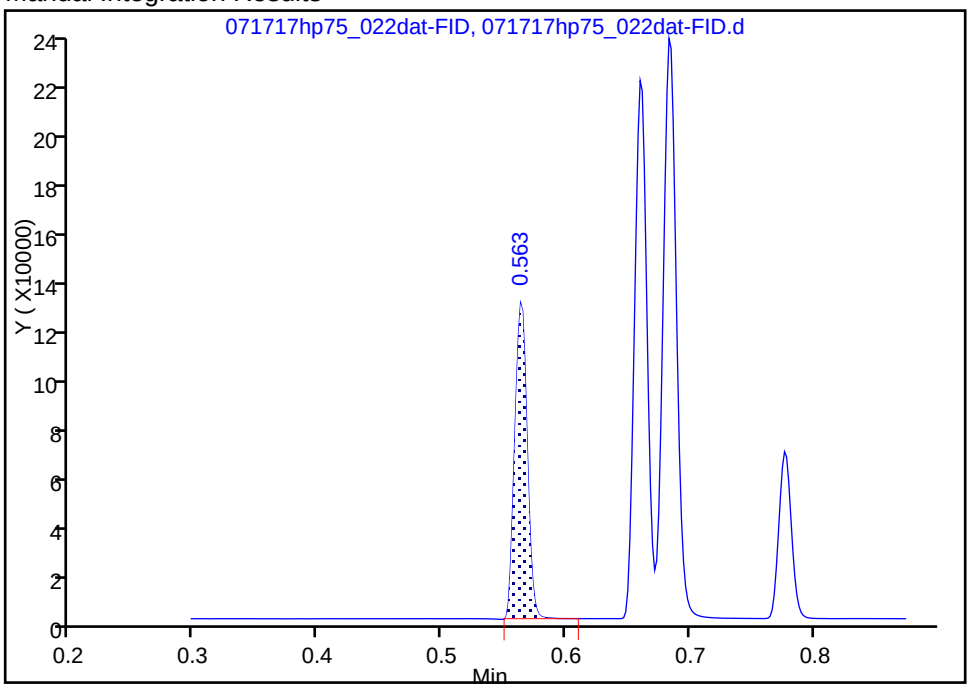
Processing Integration Results

RT: 0.56
Area: 86727
Amount: 303.6477
Amount Units: ug/l



Manual Integration Results

RT: 0.56
Area: 86152
Amount: 301.6331
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:39:29

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVRT 490-445603/3 Calibration Date: 07/18/2017 10:00

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071817hp75_003dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetylene	Lin2		97.68		491	463	6.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCVRT 490-445603/3 Calibration Date: 07/18/2017 10:00

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071817hp75_003dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Acetylene	0.77	0.74	0.80

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_003dat-FID.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	18-Jul-2017 10:00:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccvrt				
Misc. Info.:	ccvrt				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 12:04:53	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				
First Level Reviewer: browna		Date:	18-Jul-2017 10:30:45		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.773	0.773	0.000	45211	462.9	490.8	

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

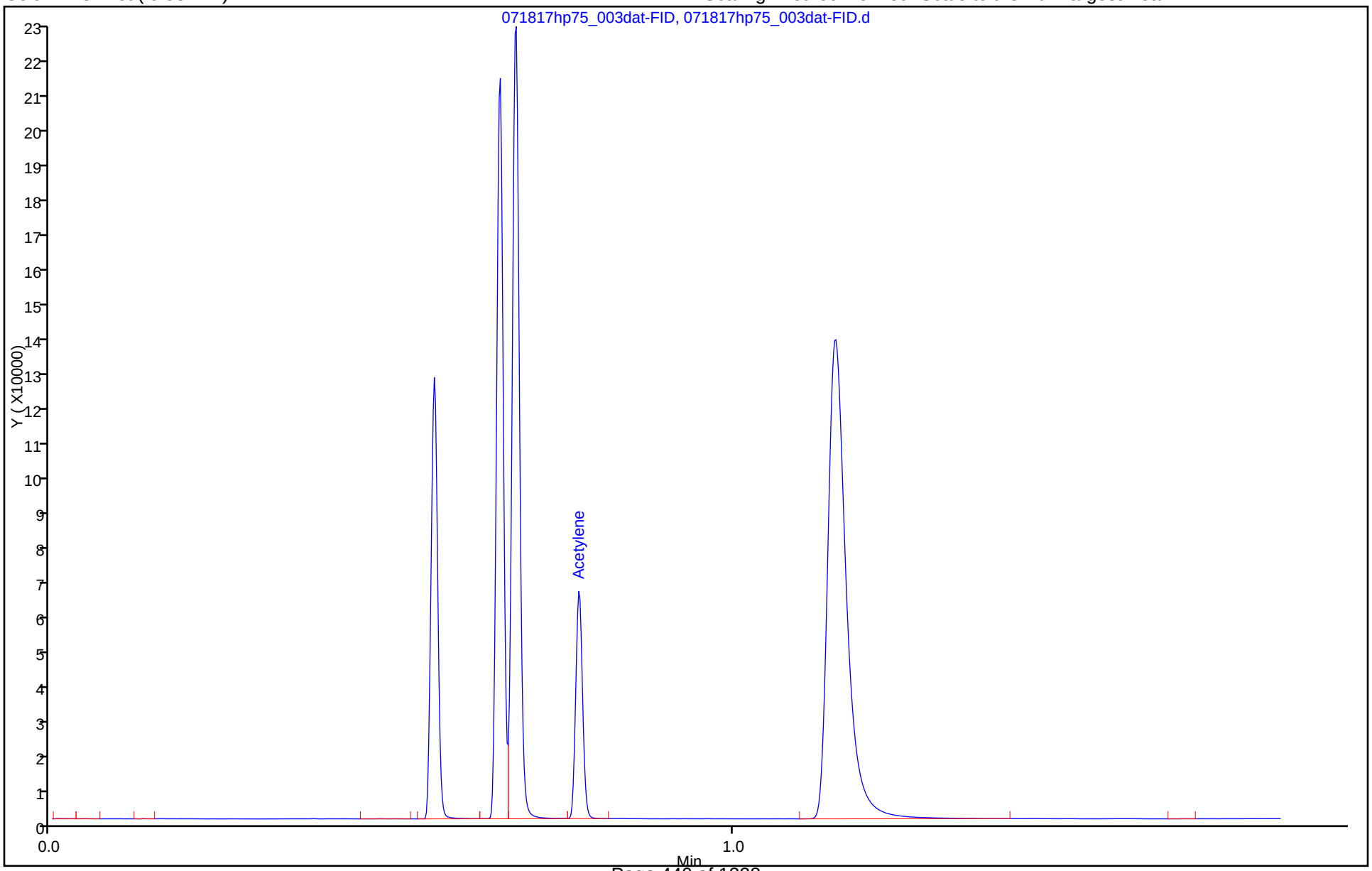
Report Date: 18-Jul-2017 12:04:53 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_003dat-FID.d

Injection Date:	18-Jul-2017 10:00:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccvrt			Worklist Smp#:	3
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCV 490-445603/10 Calibration Date: 07/18/2017 11:19

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071817hp75_010dat-FID.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetylene	Lin2		97.74		491	463	6.1	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Lab Sample ID: CCV 490-445603/10 Calibration Date: 07/18/2017 11:19

Instrument ID: HP75 Calib Start Date: 07/07/2017 11:51

GC Column: RT-U-Bond ID: 0.53(mm) Calib End Date: 07/07/2017 14:03

Lab File ID: 071817hp75_010dat-FID.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Acetylene	0.78	0.72	0.82

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_010dat-FID.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-Jul-2017 11:19:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccv				
Misc. Info.:	ccv				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Sublist:	chrom-RSK175LONG*sub5				
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:49:03	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				
First Level Reviewer: browna		Date:	18-Jul-2017 11:48:09		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.778	0.773	0.005	45240	462.9	491.1	

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

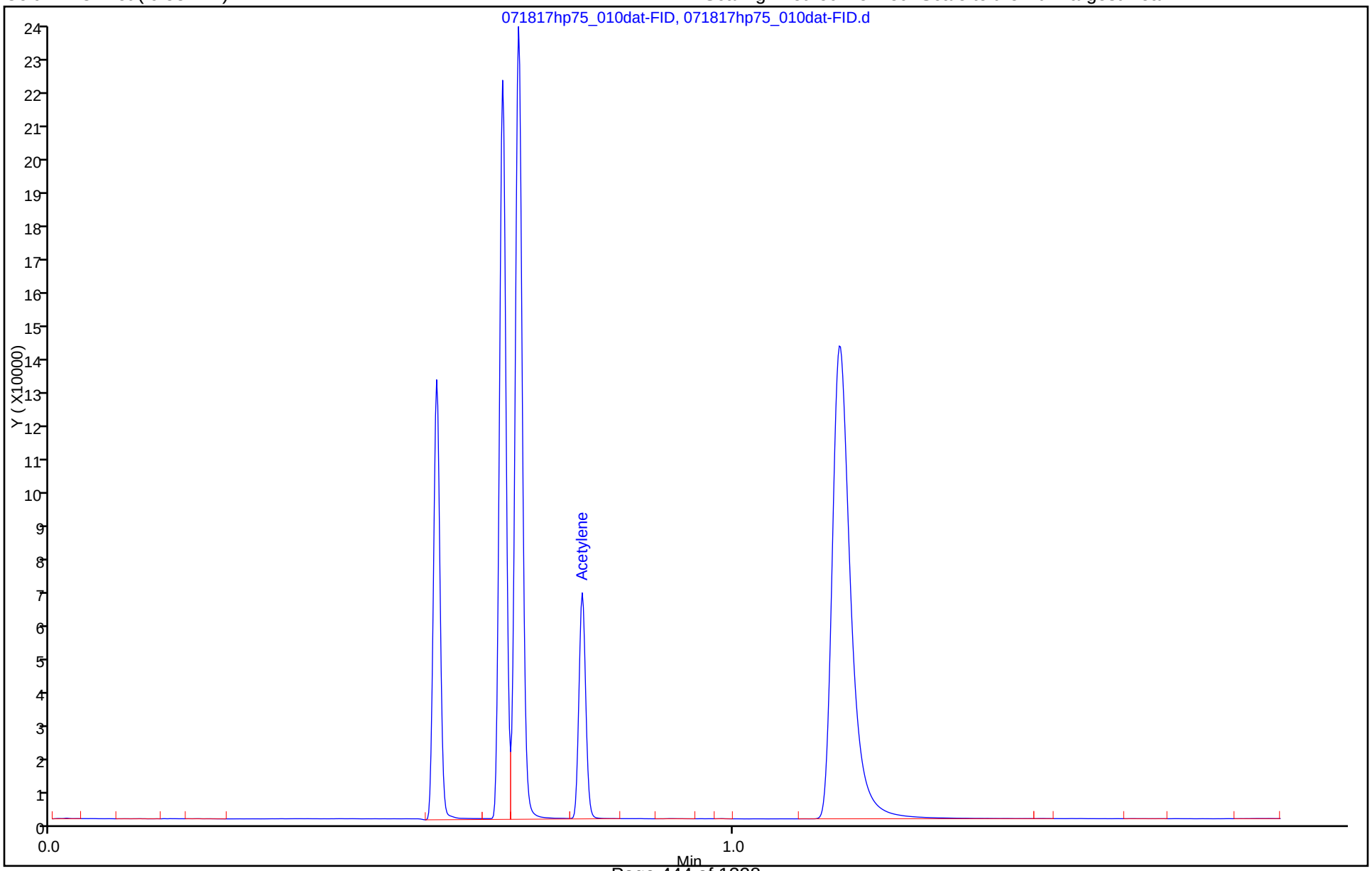
Report Date: 18-Jul-2017 11:49:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_010dat-FID.d

Injection Date:	18-Jul-2017 11:19:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccv			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 490-445410/7

Matrix: Water Lab File ID: 071717hp75_007dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 12:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.0027	U	0.0050	0.0027
74-86-2	Acetylene	0.0034	U	0.0050	0.0034
106-97-8	Butane	0.0058	U	0.010	0.0058
74-85-1	Ethene	0.0022	U	0.0050	0.0022
74-82-8	Methane	0.0017	U	0.0050	0.0017
74-98-6	Propane	0.0033	U	0.0050	0.0033

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)	96		62-124

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_007dat-FID.d				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	17-Jul-2017 12:23:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	mb				
Misc. Info.:	mb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:07:45		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 4 Acetylene (Surr)						
0.777	0.775	0.002	40650	462.9	442.3	

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL

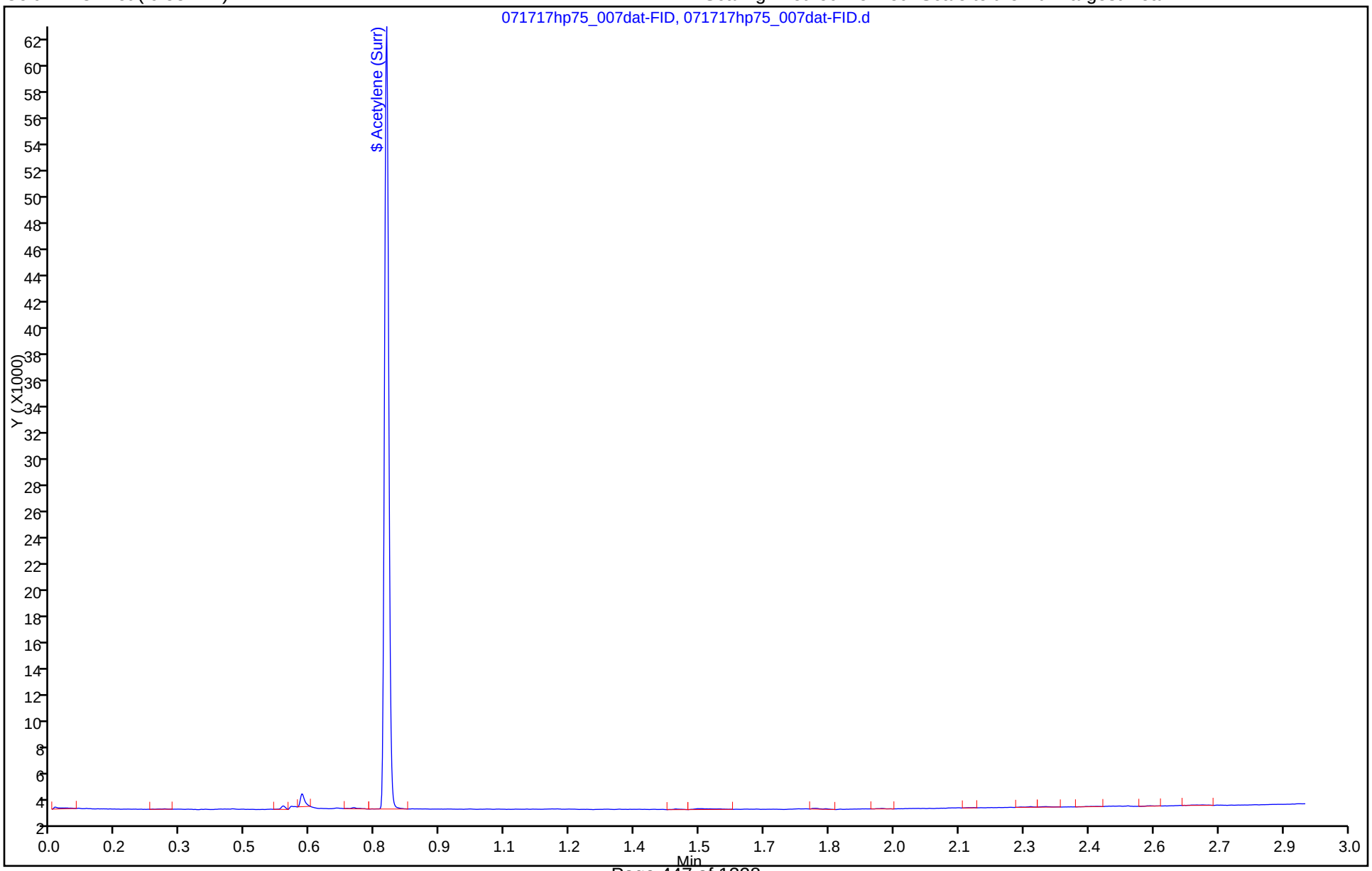
Report Date: 17-Jul-2017 14:33:13 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_007dat-FID.d

Injection Date:	17-Jul-2017 12:23:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_007dat-FID.d				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	17-Jul-2017 12:23:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	mb				
Misc. Info.:	mb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:07:45		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	462.9	442.3	95.57

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 490-445410/6

Matrix: Water Lab File ID: 071717hp75_006dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 12:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	2.7	U	5.0	2.7
74-86-2	Acetylene	3.4	U	5.0	3.4
106-97-8	Butane	2.5	U	5.0	2.5
74-85-1	Ethene	2.2	U	5.0	2.2
74-82-8	Methane	1.7	U	5.0	1.7
74-98-6	Propane	3.3	U	5.0	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)			

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_006dat-FID.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-Jul-2017 12:17:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Misc. Info.:	ccb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:07:21		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

Report Date: 17-Jul-2017 14:33:13 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_006dat-FID.d

Injection Date:	17-Jul-2017 12:17:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccb			Worklist Smp#:	6
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 490-445410/23

Matrix: Water Lab File ID: 071717hp75_023dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 14:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	2.7	U	5.0	2.7
74-86-2	Acetylene	3.4	U	5.0	3.4
106-97-8	Butane	2.5	U	5.0	2.5
74-85-1	Ethene	2.2	U	5.0	2.2
74-82-8	Methane	1.7	U	5.0	1.7
74-98-6	Propane	3.3	U	5.0	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)			

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_023dat-FID.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-Jul-2017 14:50:00	ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Misc. Info.:	ccb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:55:43	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93588.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:55:43		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

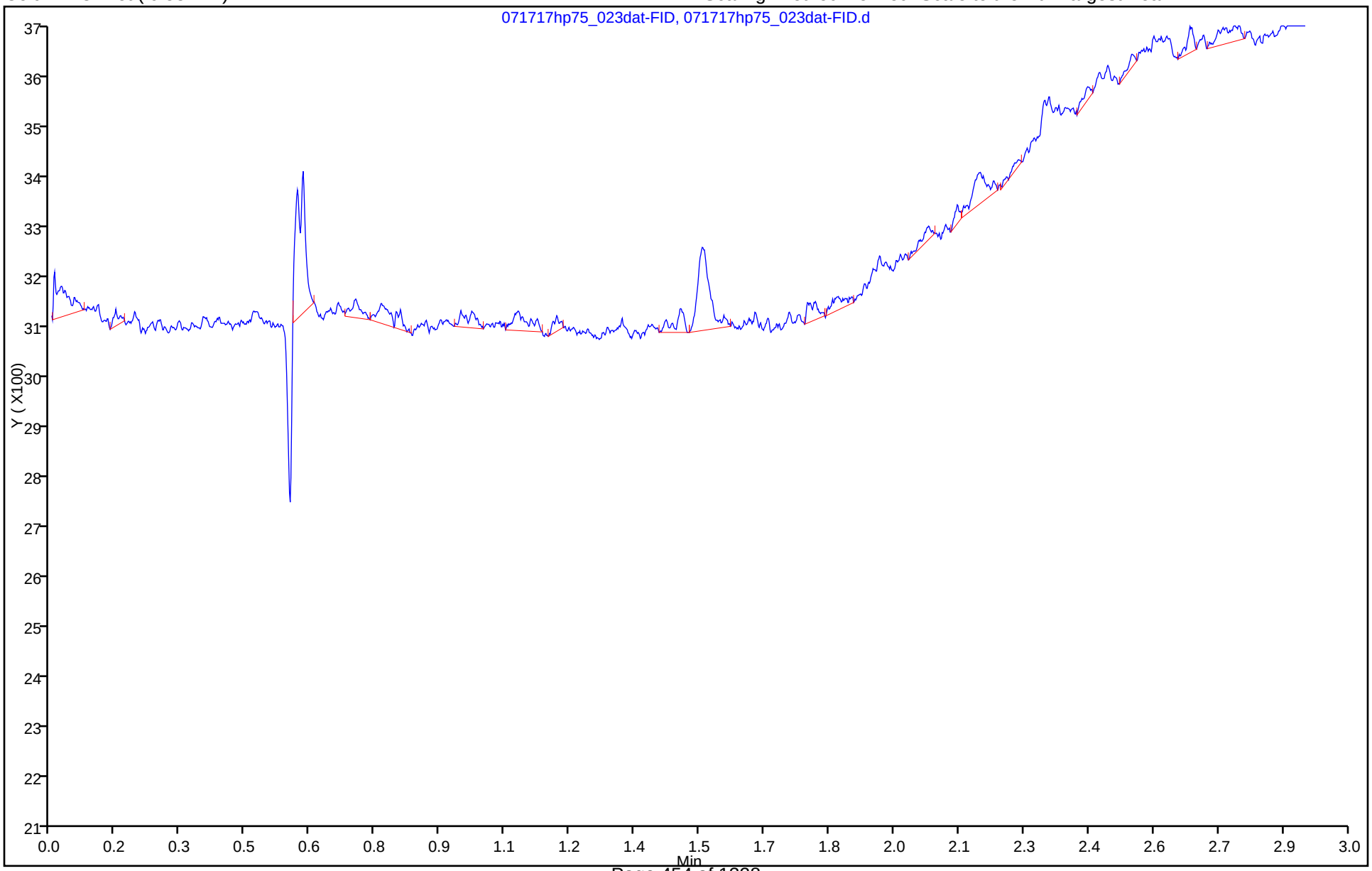
Report Date: 17-Jul-2017 14:55:47 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_023dat-FID.d

Injection Date:	17-Jul-2017 14:50:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccb			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 490-445603/4

Matrix: Water Lab File ID: 071817hp75_004dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 10:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	2.7	U	5.0	2.7
74-86-2	Acetylene	3.4	U	5.0	3.4
106-97-8	Butane	2.5	U	5.0	2.5
74-85-1	Ethene	2.2	U	5.0	2.2
74-82-8	Methane	1.7	U	5.0	1.7
74-98-6	Propane	3.3	U	5.0	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)			

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_004dat-FID.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-Jul-2017 10:25:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Misc. Info.:	ccb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				
First Level Reviewer: browna		Date:	18-Jul-2017 10:35:18		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

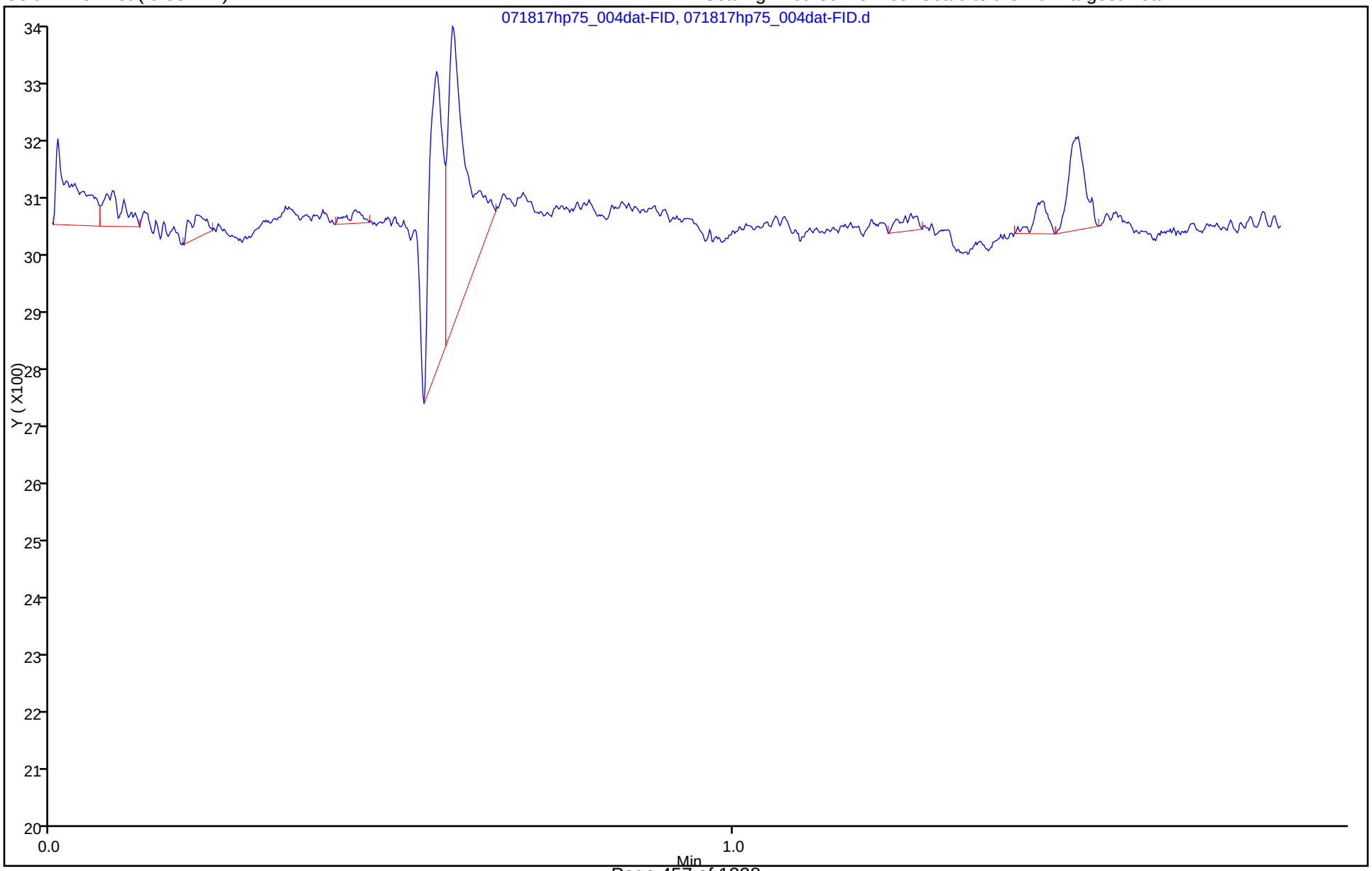
Report Date: 18-Jul-2017 11:48:59 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_004dat-FID.d

Injection Date:	18-Jul-2017 10:25:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 490-445603/11

Matrix: Water Lab File ID: 071817hp75_011dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 11:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	2.7	U	5.0	2.7
74-86-2	Acetylene	3.4	U	5.0	3.4
106-97-8	Butane	2.5	U	5.0	2.5
74-85-1	Ethene	2.2	U	5.0	2.2
74-82-8	Methane	1.7	U	5.0	1.7
74-98-6	Propane	3.3	U	5.0	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)			

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_011dat-FID.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-Jul-2017 11:43:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Misc. Info.:	ccb				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:49:03	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				
First Level Reviewer: browna		Date:	18-Jul-2017 11:48:47		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

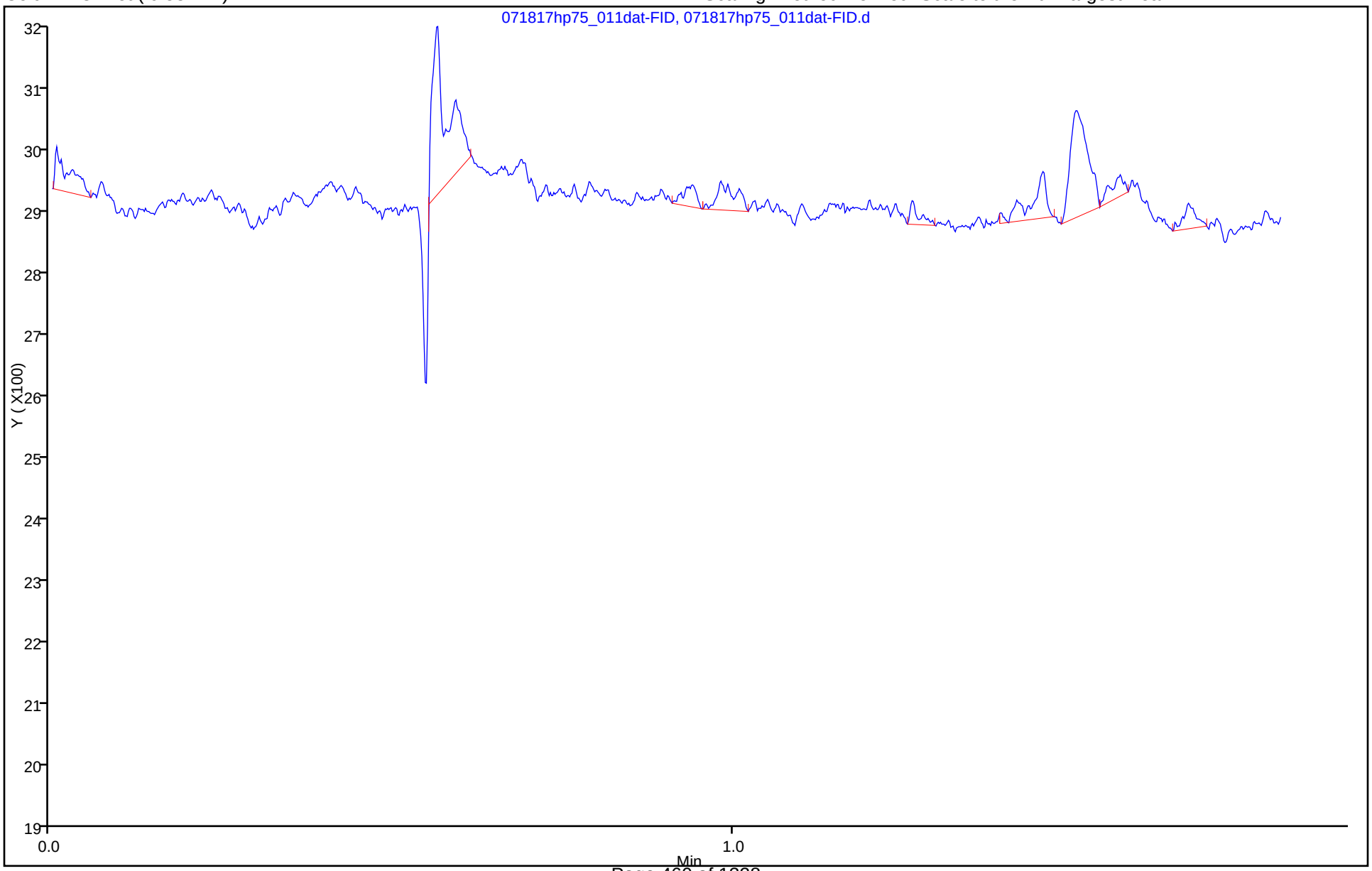
Report Date: 18-Jul-2017 11:49:04 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_011dat-FID.d

Injection Date:	18-Jul-2017 11:43:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	ccb			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 490-445410/8

Matrix: Water Lab File ID: 071717hp75_008dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 12:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.510		0.0050	0.0027
106-97-8	Butane	1.01		0.010	0.0058
74-85-1	Ethene	0.499		0.0050	0.0022
74-82-8	Methane	0.277		0.0050	0.0017
74-98-6	Propane	0.754		0.0050	0.0033

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)	102		62-124

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 17-Jul-2017 12:29:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: lcs
Operator ID: Brown, Antoinette (Instrument ID: HP75

Method: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m
Limit Group: GC RSK175 ICAL
Last Update: 17-Jul-2017 14:33:12 Calib Date: 07-Jul-2017 14:03:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d

Column 1 : U-Plot (0.53 mm) Det: IC FID
Process Host: XAWRK001

First Level Reviewer: browna Date: 17-Jul-2017 14:08:42

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	1 Methane						M
	0.565	0.563	0.002	79004	286.7	276.6	M
	2 Ethylene						M
	0.662	0.660	0.002	130807	492.9	499.4	M
	3 Ethane						M
	0.685	0.683	0.002	150692	527.1	509.7	M
$	4 Acetylene (Surr)						M
	0.777	0.775	0.002	43378	462.9	472.0	M
	6 Propane						
	1.155	1.153	0.002	227692	771.4	754.1	
	7 Propane, 2-methyl						
	1.927	1.922	0.005	297200	1020.0	976.4	
	8 Butane						
	2.137	2.135	0.002	311725	1020.0	1008.1	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

RSK_sur_ACE_00004 Amount Added: 900.00 Units: uL
RSK_VER 8COMP_00001 Amount Added: 900.00 Units: uL

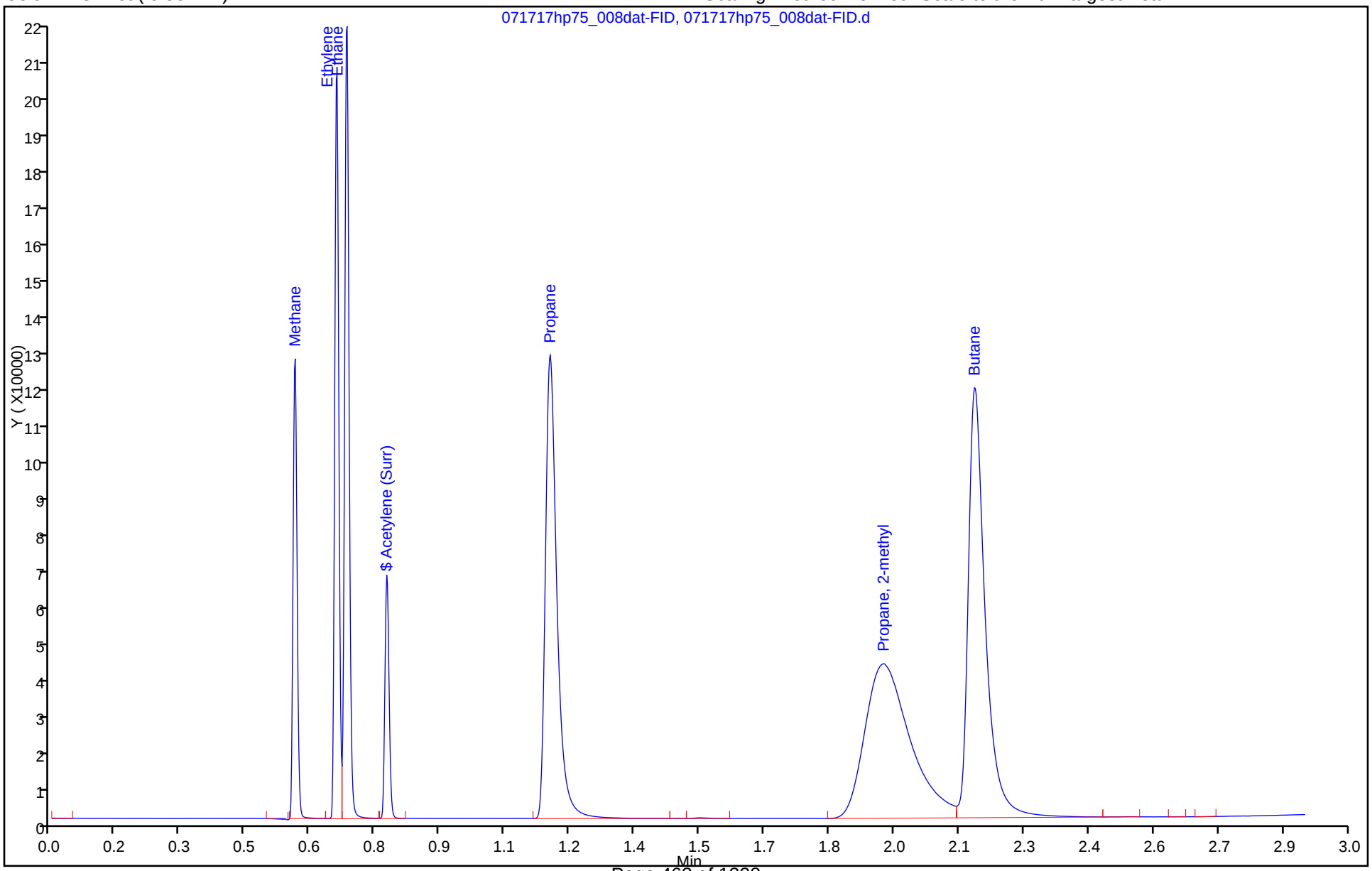
Report Date: 17-Jul-2017 14:33:15 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d

Injection Date:	17-Jul-2017 12:29:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	lcs			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	17-Jul-2017 12:29:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	lcs				
Misc. Info.:	lcs				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				

First Level Reviewer: browna Date: 17-Jul-2017 14:08:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	462.9	472.0	101.98

Manual Integration/User Assign Peak Report

TestAmerica Nashville

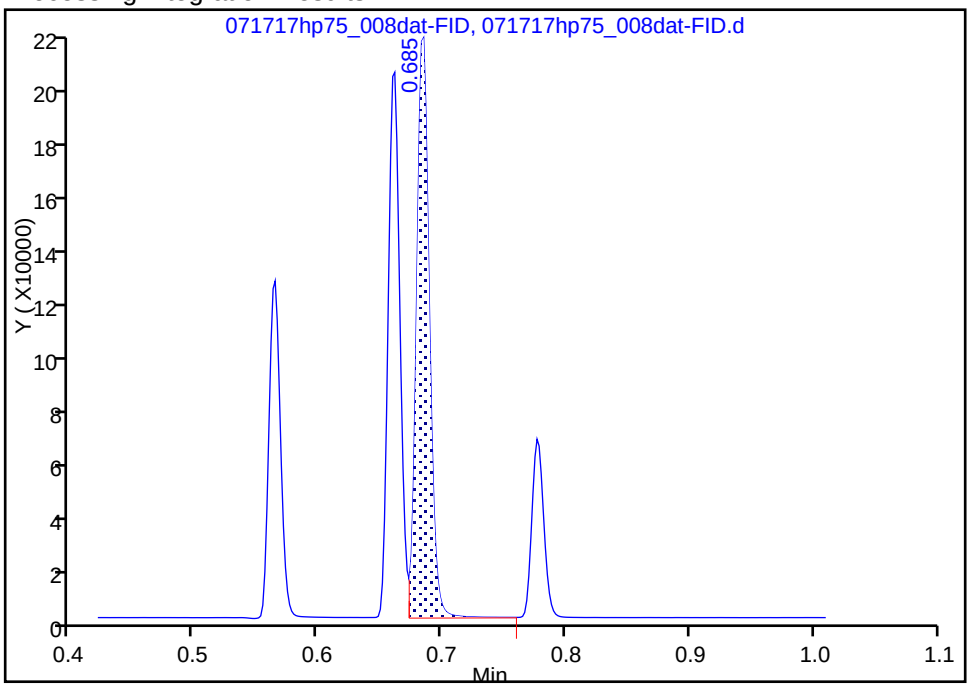
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d				
Injection Date:	17-Jul-2017 12:29:00	Instrument ID:	HP75		
Lims ID:	lcs				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

3 Ethane, CAS: 74-84-0

Signal: 1

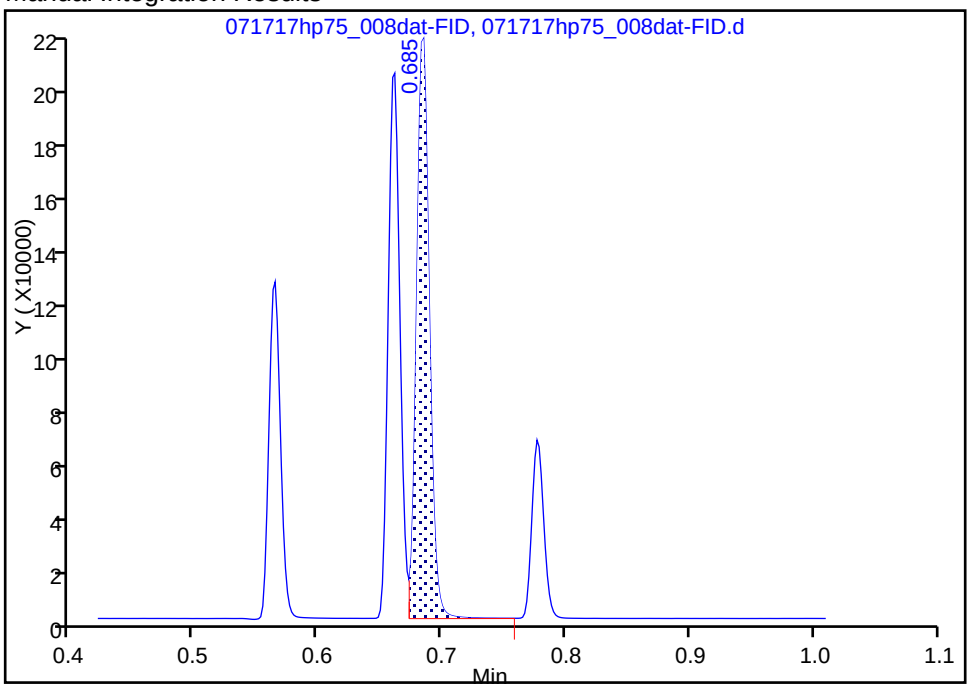
Processing Integration Results

RT: 0.68
Area: 151213
Amount: 511.4186
Amount Units: ug/l



Manual Integration Results

RT: 0.68
Area: 150692
Amount: 509.6573
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:08:23
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

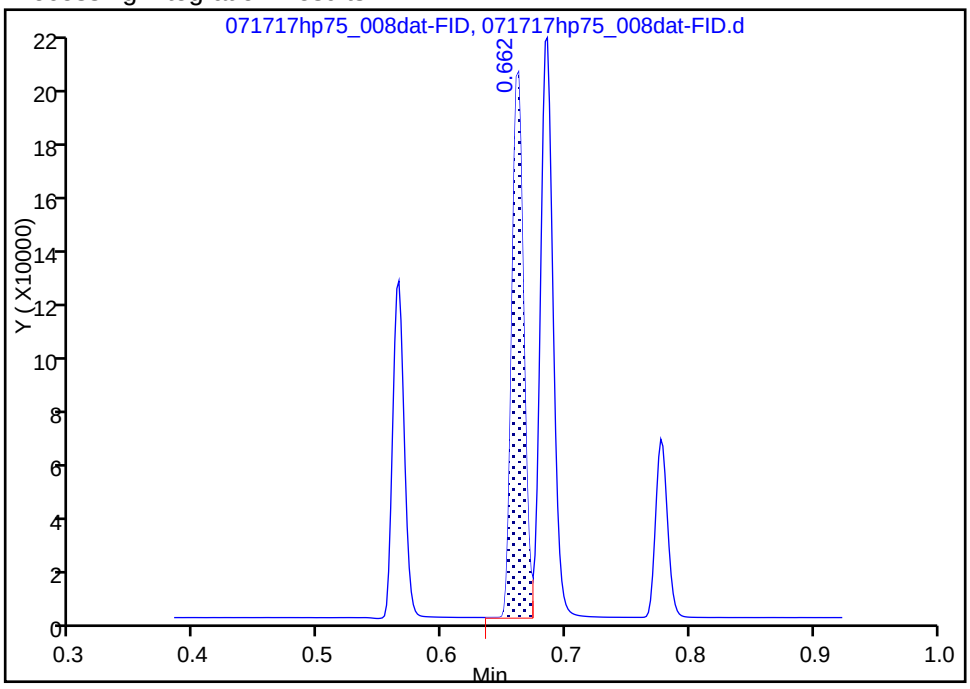
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d				
Injection Date:	17-Jul-2017 12:29:00	Instrument ID:	HP75		
Lims ID:	lcs				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

2 Ethylene, CAS: 74-85-1

Signal: 1

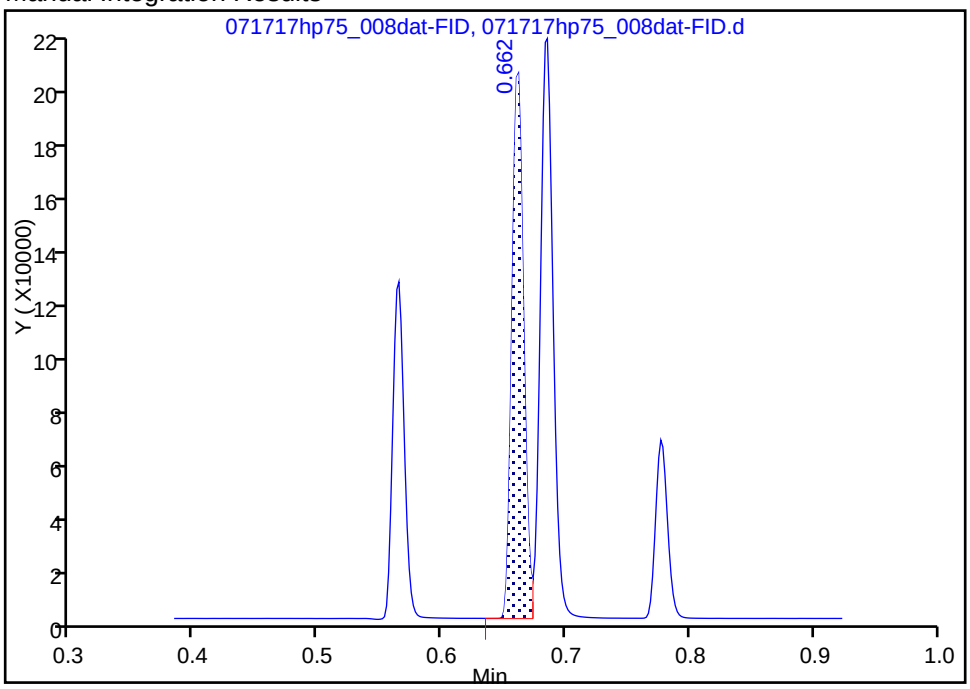
Processing Integration Results

RT: 0.66
Area: 131163
Amount: 500.7801
Amount Units: ug/l



Manual Integration Results

RT: 0.66
Area: 130807
Amount: 499.4224
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:08:08

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

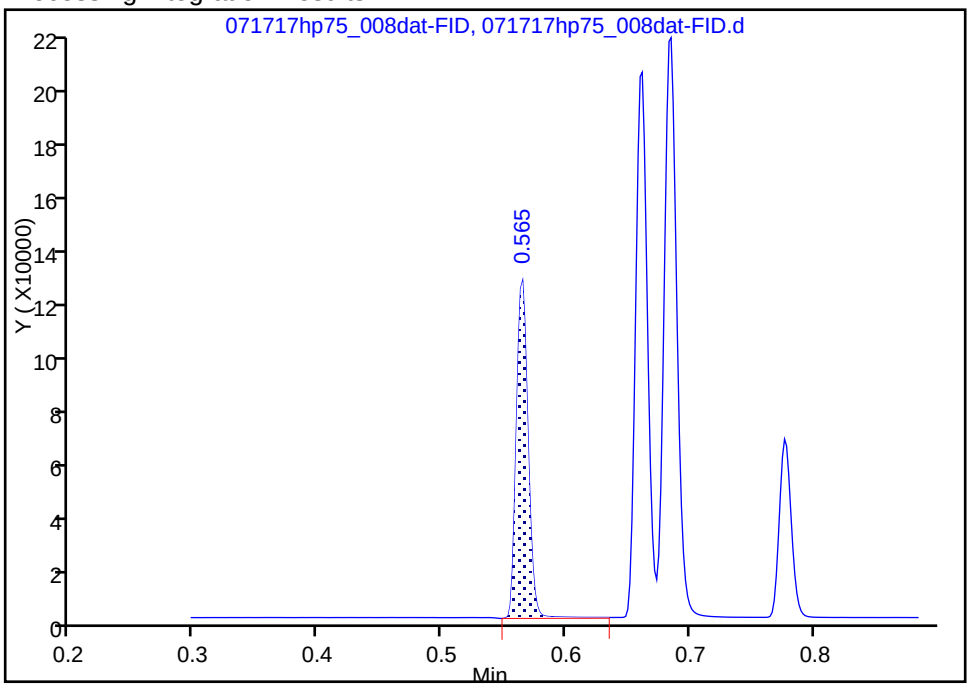
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d				
Injection Date:	17-Jul-2017 12:29:00	Instrument ID:	HP75		
Lims ID:	lcs				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

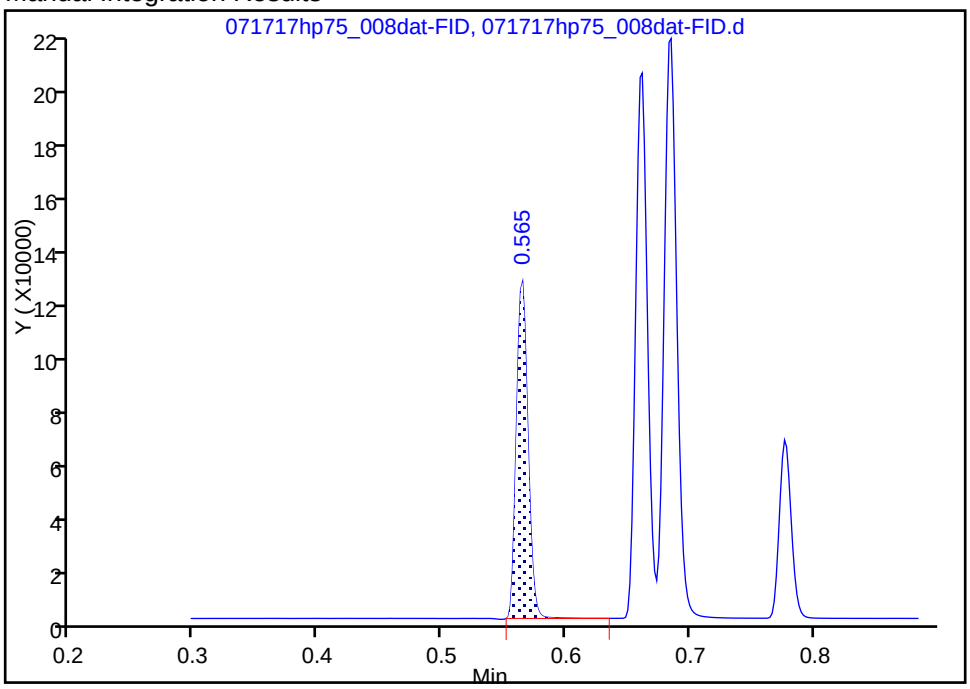
RT: 0.56
Area: 80303
Amount: 281.1408
Amount Units: ug/l

Processing Integration Results



RT: 0.56
Area: 79004
Amount: 276.5897
Amount Units: ug/l

Manual Integration Results



Reviewer: browna, 17-Jul-2017 14:08:03
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

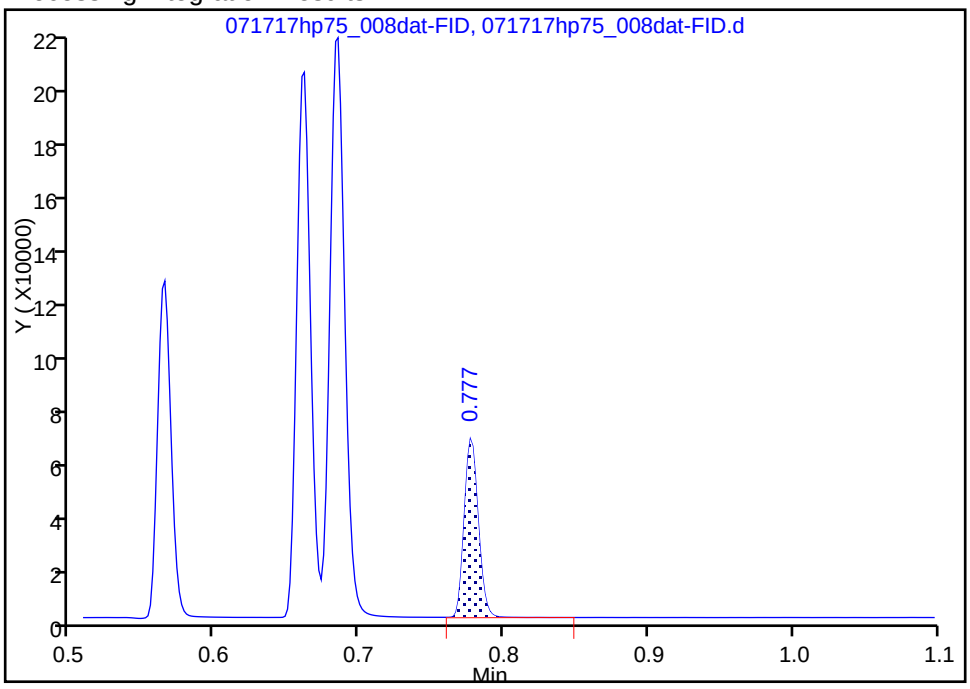
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_008dat-FID.d				
Injection Date:	17-Jul-2017 12:29:00	Instrument ID:	HP75		
Lims ID:	lcs				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

$ 4 Acetylene (Surr), CAS: 74-86-2

Signal: 1

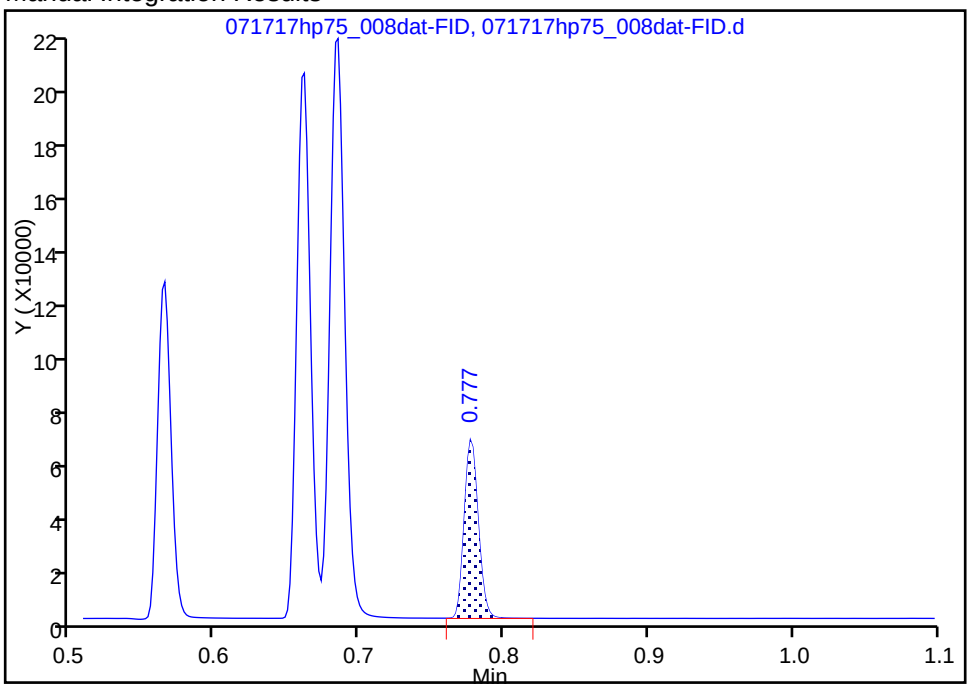
Processing Integration Results

RT: 0.78
Area: 43559
Amount: 473.9773
Amount Units: ug/l



Manual Integration Results

RT: 0.78
Area: 43378
Amount: 472.0083
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:08:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 490-445603/6

Matrix: Water Lab File ID: 071817hp75_006dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 10:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-86-2	Acetylene	0.466		0.0050	0.0034

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_006dat-FID.d				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	18-Jul-2017 10:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	lcs				
Misc. Info.:	lcs				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.780	0.773	0.007	42934	462.9	466.0	

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

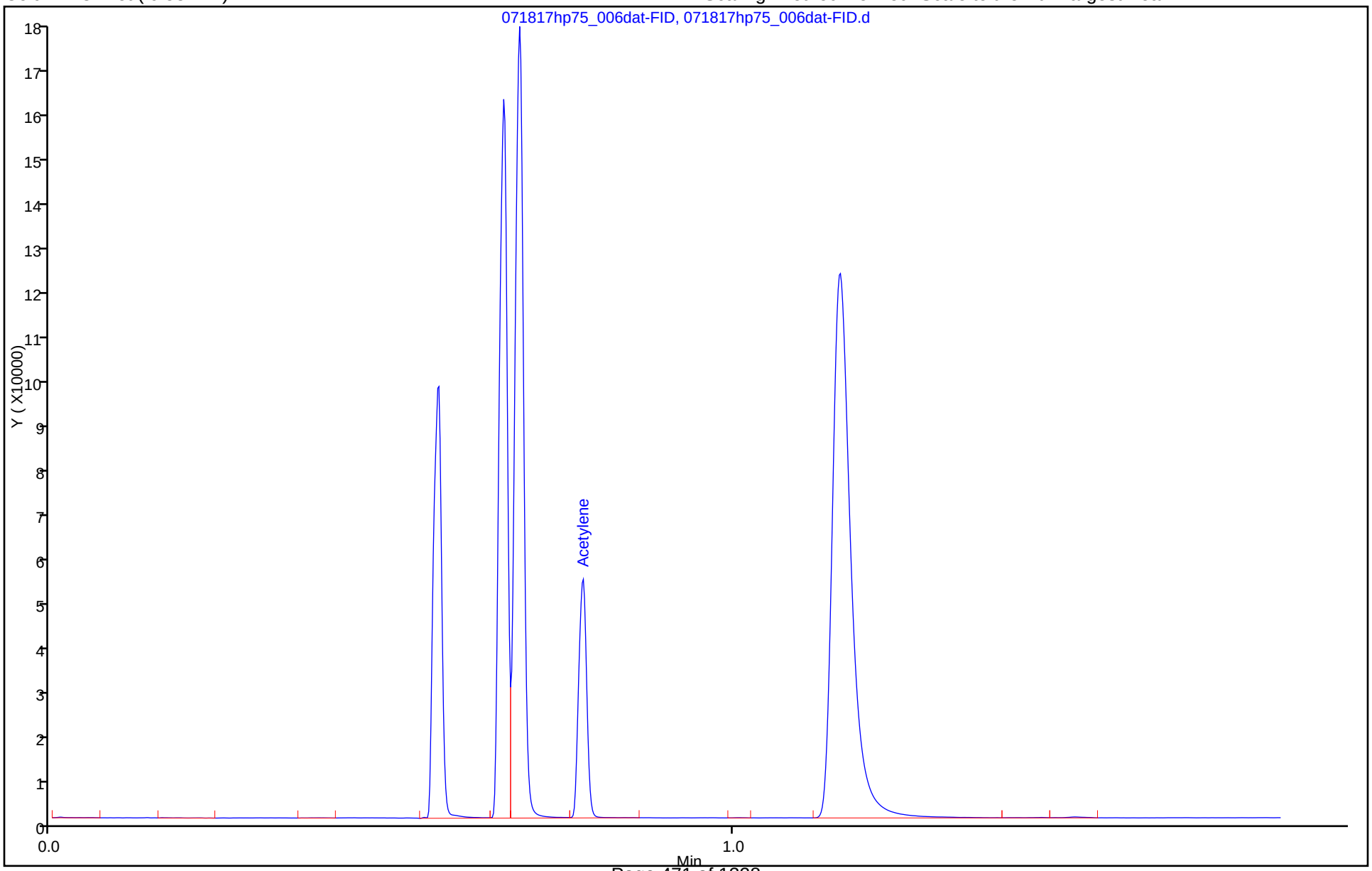
Report Date: 18-Jul-2017 11:49:00 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_006dat-FID.d

Injection Date:	18-Jul-2017 10:36:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	lcs			Worklist Smp#:	6
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 490-445410/9

Matrix: Water Lab File ID: 071717hp75_009dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/17/2017 12:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445410 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.522		0.0050	0.0027
106-97-8	Butane	1.05		0.010	0.0058
74-85-1	Ethene	0.510		0.0050	0.0022
74-82-8	Methane	0.283		0.0050	0.0017
74-98-6	Propane	0.778		0.0050	0.0033

CAS NO.	SURROGATE	%REC	Q	LIMITS
74-86-2	Acetylene (Surr)	103		62-124

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_009dat-FID.d				
Lims ID:	lcsd				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	17-Jul-2017 12:43:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	lcsd				
Misc. Info.:	lcsd				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				
First Level Reviewer: browna		Date:	17-Jul-2017 14:09:06		

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Methane						M
	0.567	0.563	0.004	80965	286.7	283.5	M
2	Ethylene						
	0.663	0.660	0.003	133531	492.9	509.8	
3	Ethane						
	0.687	0.683	0.004	154231	527.1	521.6	
$ 4	Acetylene (Surr)						
	0.778	0.775	0.003	43960	462.9	478.3	
6	Propane						
	1.158	1.153	0.005	234876	771.4	777.9	
7	Propane, 2-methyl						
	1.925	1.922	0.003	308134	1020.0	1012.3	
8	Butane						
	2.138	2.135	0.003	325683	1020.0	1053.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK_sur_ACE_00004	Amount Added: 900.00	Units: uL
RSK_VER 8COMP_00001	Amount Added: 900.00	Units: uL

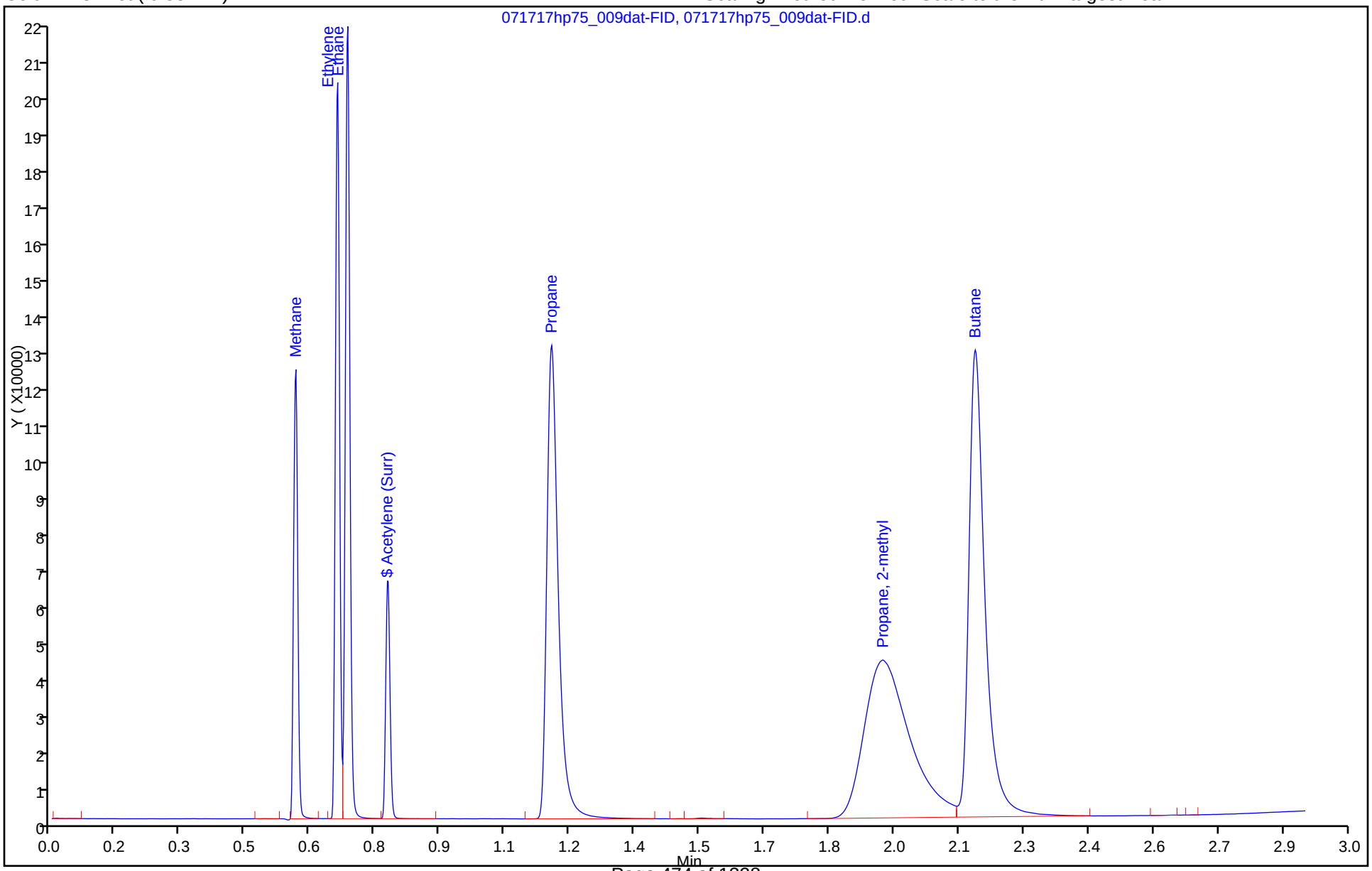
Report Date: 17-Jul-2017 14:33:17 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_009dat-FID.d

Injection Date:	17-Jul-2017 12:43:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	lcsd			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Nashville
Recovery Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_009dat-FID.d				
Lims ID:	lcsd				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	17-Jul-2017 12:43:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	lcsd				
Misc. Info.:	lcsd				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	17-Jul-2017 14:33:12	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK001				

First Level Reviewer: browna Date: 17-Jul-2017 14:09:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Acetylene (Surr)	462.9	478.3	103.35

Manual Integration/User Assign Peak Report

TestAmerica Nashville

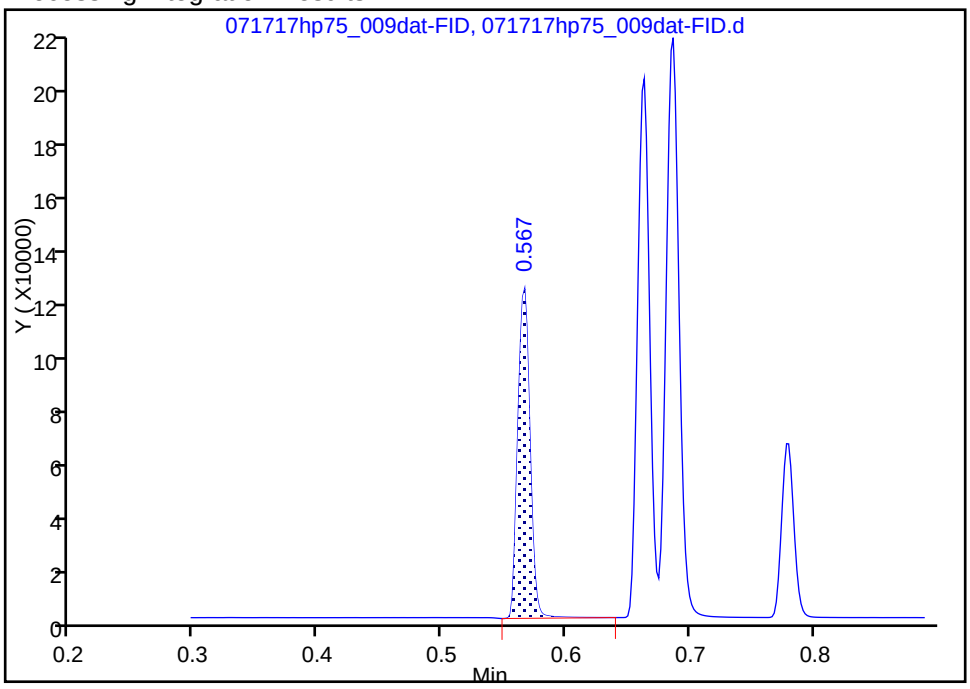
Data File:	\\ChromNA\Nashville\ChromData\HP75\20170717-93975.b\071717hp75_009dat-FID.d				
Injection Date:	17-Jul-2017 12:43:00	Instrument ID:	HP75		
Lims ID:	lcsd				
Client ID:					
Operator ID:	Brown, Antoinette (	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		
Column:	U-Plot (0.53 mm)	Detector	IC FID		

1 Methane, CAS: 74-82-8

Signal: 1

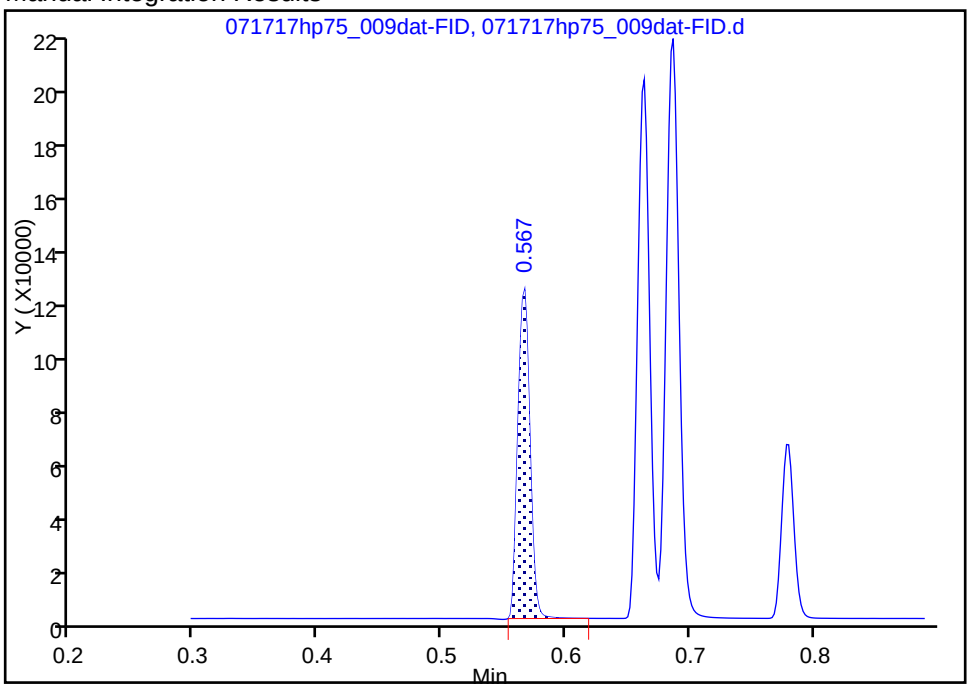
Processing Integration Results

RT: 0.57
Area: 81787
Amount: 286.3401
Amount Units: ug/l



Manual Integration Results

RT: 0.57
Area: 80965
Amount: 283.4602
Amount Units: ug/l



Reviewer: browna, 17-Jul-2017 14:09:04
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 490-445603/7

Matrix: Water Lab File ID: 071817hp75_007dat-FID.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 21(mL) Date Analyzed: 07/18/2017 10:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RT-U-Bond ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 445603 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-86-2	Acetylene	0.469		0.0050	0.0034

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_007dat-FID.d				
Lims ID:	lcsd				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	18-Jul-2017 10:51:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	lcsd				
Misc. Info.:	lcsd				
Operator ID:	Brown, Antoinette (	Instrument ID:	HP75		
Method:	\\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\RSK175LONG.m				
Limit Group:	GC RSK175 ICAL				
Last Update:	18-Jul-2017 11:48:58	Calib Date:	07-Jul-2017 14:03:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\HP75\20170707-93567.b\070717hp75_012dat-FID.d				
Column 1 :	U-Plot (0.53 mm)		Det: IC FID		
Process Host:	XAWRK023				
First Level Reviewer: browna		Date:	18-Jul-2017 11:10:52		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Acetylene						
0.777	0.773	0.004	43168	462.9	468.6	

Reagents:

RSK_ACE_00004 Amount Added: 900.00 Units: uL

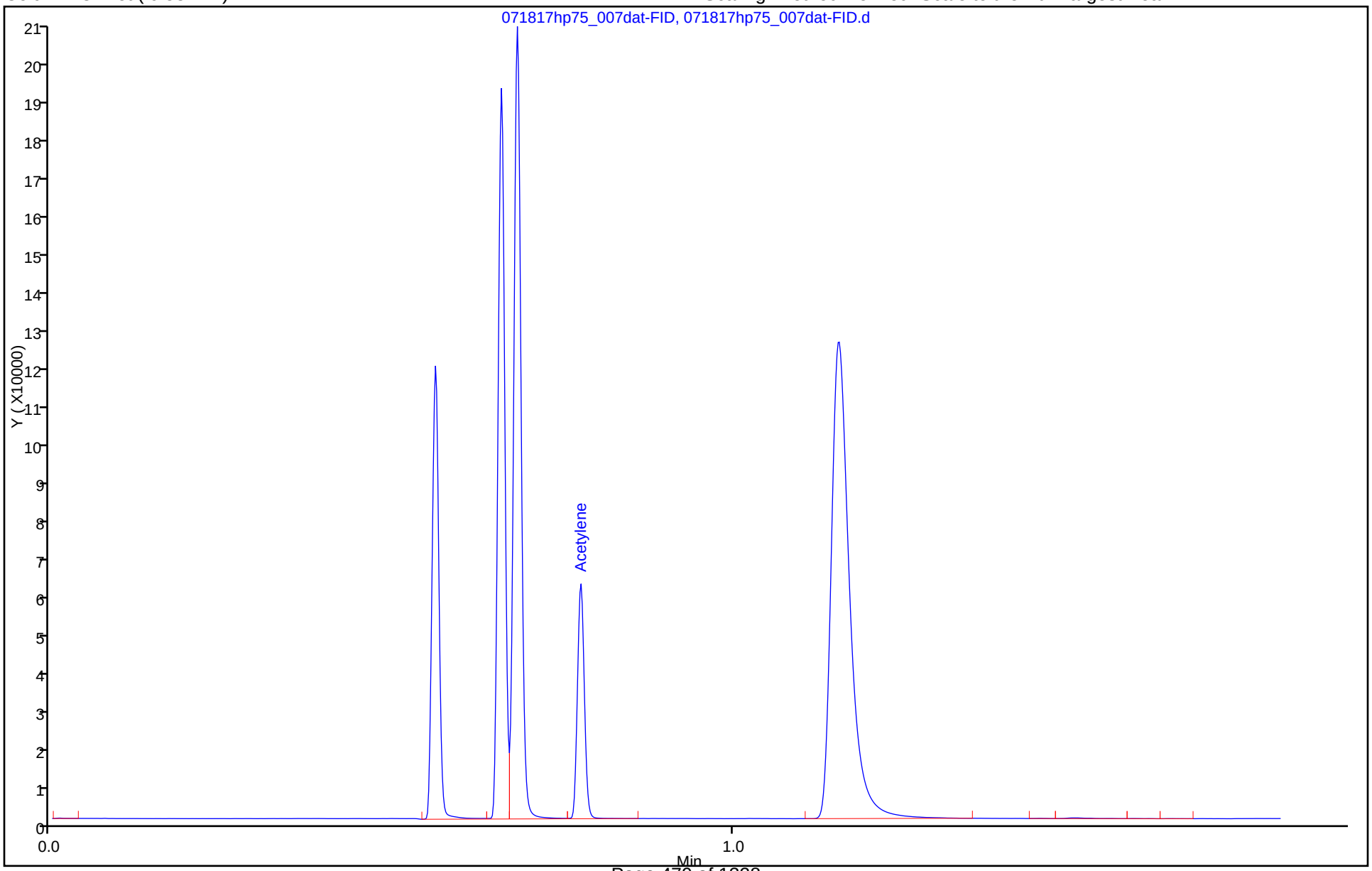
Report Date: 18-Jul-2017 11:49:01 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\HP75\20170718-94008.b\071817hp75_007dat-FID.d

Injection Date:	18-Jul-2017 10:51:00	Instrument ID:	HP75	Operator ID:	Brown, Antoinette (
Lims ID:	lcsd			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK175LONG	Limit Group:	GC RSK175 ICAL		

Column: U-Plot (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Start Date: 07/07/2017 11:45

Analysis Batch Number: 443329 End Date: 07/07/2017 18:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RINSE 490-443329/1		07/07/2017 11:45	1		RT-U-Bond 0.53(mm)
STD1 490-443329/2 IC		07/07/2017 11:51	1	070717hp75_002dat-FID.d	RT-U-Bond 0.53(mm)
STD2 490-443329/3 IC		07/07/2017 11:57	1	070717hp75_003dat-FID.d	RT-U-Bond 0.53(mm)
STD3 490-443329/4 IC		07/07/2017 12:02	1	070717hp75_004dat-FID.d	RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 12:08	1		RT-U-Bond 0.53(mm)
ICRT 490-443329/6		07/07/2017 12:14	1	070717hp75_006dat-FID.d	RT-U-Bond 0.53(mm)
STD6 490-443329/7 IC		07/07/2017 12:29	1	070717hp75_007dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443329/8		07/07/2017 12:44	1		RT-U-Bond 0.53(mm)
STD7 490-443329/9 IC		07/07/2017 12:53	1	070717hp75_009dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443329/10		07/07/2017 13:24	1		RT-U-Bond 0.53(mm)
RINSE 490-443329/11		07/07/2017 13:56	1		RT-U-Bond 0.53(mm)
STD4 490-443329/12 IC		07/07/2017 14:03	1	070717hp75_012dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443329/13		07/07/2017 14:18	1		RT-U-Bond 0.53(mm)
ICV 490-443329/14		07/07/2017 14:22	1	070717hp75_014dat-FID.d	RT-U-Bond 0.53(mm)
ICB 490-443329/15		07/07/2017 14:35	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 16:35	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 16:43	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:02	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:15	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:20	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:23	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:27	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:31	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:34	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:38	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:41	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:46	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:49	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:53	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:56	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 17:59	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:05	20		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:08	40		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:14	5		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:19	40		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:23	40		RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 18:28	40		RT-U-Bond 0.53(mm)
CCV 490-443329/38		07/07/2017 18:34	1		RT-U-Bond 0.53(mm)
CCB 490-443329/39		07/07/2017 18:47	1		RT-U-Bond 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Start Date: 07/07/2017 11:45

Analysis Batch Number: 443459 End Date: 07/07/2017 14:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RINSE 490-443459/1		07/07/2017 11:45	1		RT-U-Bond 0.53(mm)
STD1 490-443459/2 IC		07/07/2017 11:51	1	070717hp75_002dat-FID.d	RT-U-Bond 0.53(mm)
STD2 490-443459/3 IC		07/07/2017 11:57	1	070717hp75_003dat-FID.d	RT-U-Bond 0.53(mm)
STD3 490-443459/4 IC		07/07/2017 12:02	1	070717hp75_004dat-FID.d	RT-U-Bond 0.53(mm)
ZZZZZ		07/07/2017 12:08	1		RT-U-Bond 0.53(mm)
ICRT 490-443459/6		07/07/2017 12:14	1	070717hp75_006dat-FID.d	RT-U-Bond 0.53(mm)
STD6 490-443459/7 IC		07/07/2017 12:29	1	070717hp75_007dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443459/8		07/07/2017 12:44	1		RT-U-Bond 0.53(mm)
STD7 490-443459/9 IC		07/07/2017 12:53	1	070717hp75_009dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443459/10		07/07/2017 13:24	1		RT-U-Bond 0.53(mm)
RINSE 490-443459/11		07/07/2017 13:56	1		RT-U-Bond 0.53(mm)
STD4 490-443459/12 IC		07/07/2017 14:03	1	070717hp75_012dat-FID.d	RT-U-Bond 0.53(mm)
RINSE 490-443459/13		07/07/2017 14:18	1		RT-U-Bond 0.53(mm)
ICV 490-443459/14		07/07/2017 14:22	1	070717hp75_014dat-FID.d	RT-U-Bond 0.53(mm)
ICB 490-443459/15		07/07/2017 14:35	1		RT-U-Bond 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Start Date: 07/17/2017 10:49

Analysis Batch Number: 445410 End Date: 07/17/2017 14:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RINSE 490-445410/1		07/17/2017 10:49	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 10:56	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 11:03	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 11:17	1		RT-U-Bond 0.53(mm)
CCVRT 490-445410/5		07/17/2017 11:55	1	071717hp75_005dat-FID.d	RT-U-Bond 0.53(mm)
CCB 490-445410/6		07/17/2017 12:17	1	071717hp75_006dat-FID.d	RT-U-Bond 0.53(mm)
MB 490-445410/7		07/17/2017 12:23	1	071717hp75_007dat-FID.d	RT-U-Bond 0.53(mm)
LCS 490-445410/8		07/17/2017 12:29	1	071717hp75_008dat-FID.d	RT-U-Bond 0.53(mm)
LCSD 490-445410/9		07/17/2017 12:43	1	071717hp75_009dat-FID.d	RT-U-Bond 0.53(mm)
240-81987-2		07/17/2017 12:57	1	071717hp75_010dat-FID.d	RT-U-Bond 0.53(mm)
240-81987-3		07/17/2017 13:03	1	071717hp75_011dat-FID.d	RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:09	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:16	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:23	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:29	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:35	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:40	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 13:47	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 14:13	10		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 14:20	10		RT-U-Bond 0.53(mm)
ZZZZZ		07/17/2017 14:27	20		RT-U-Bond 0.53(mm)
CCV 490-445410/22		07/17/2017 14:32	1	071717hp75_022dat-FID.d	RT-U-Bond 0.53(mm)
CCB 490-445410/23		07/17/2017 14:50	1	071717hp75_023dat-FID.d	RT-U-Bond 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 240-81987-1

SDG No.:

Instrument ID: HP75 Start Date: 07/18/2017 09:40

Analysis Batch Number: 445603 End Date: 07/18/2017 11:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RINSE 490-445603/1		07/18/2017 09:40	1		RT-U-Bond 0.53(mm)
ZZZZZ		07/18/2017 09:52	1		RT-U-Bond 0.53(mm)
CCVRT 490-445603/3		07/18/2017 10:00	1	071817hp75_003dat-FID.d	RT-U-Bond 0.53(mm)
CCB 490-445603/4		07/18/2017 10:25	1	071817hp75_004dat-FID.d	RT-U-Bond 0.53(mm)
ZZZZZ		07/18/2017 10:28	1		RT-U-Bond 0.53(mm)
LCS 490-445603/6		07/18/2017 10:36	1	071817hp75_006dat-FID.d	RT-U-Bond 0.53(mm)
LCSD 490-445603/7		07/18/2017 10:51	1	071817hp75_007dat-FID.d	RT-U-Bond 0.53(mm)
240-81987-2		07/18/2017 11:06	1	071817hp75_008dat-FID.d	RT-U-Bond 0.53(mm)
240-81987-3		07/18/2017 11:09	1	071817hp75_009dat-FID.d	RT-U-Bond 0.53(mm)
CCV 490-445603/10		07/18/2017 11:19	1	071817hp75_010dat-FID.d	RT-U-Bond 0.53(mm)
CCB 490-445603/11		07/18/2017 11:43	1	071817hp75_011dat-FID.d	RT-U-Bond 0.53(mm)

RSK-175

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
SEMW-9S-070617	240-81987-1
SEMW-9I-070617	240-81987-2

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: SEMW-9S-070617 Lab Sample ID: 240-81987-1

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:35

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	2000	100	25	ug/L			1	6010C
7439-96-5	Manganese	320	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	150	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	92	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	61	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: SEMW-9I-070617 Lab Sample ID: 240-81987-2

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:40

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	1300	100	25	ug/L			1	6010C
7439-96-5	Manganese	320	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	38	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	18	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	21	21	21	mg/L	U		1	2340B-1997

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICV 240-286913/4 07/12/2017 08:32				CCV 240-286913/66 07/12/2017 13:00				CCV 240-286913/79 07/12/2017 13:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24500		25000	98	50100		50000	100	49300		50000	99
Iron	12800		12500	102	25600		25000	102	25300		25000	101
Magnesium	25600		25000	102	50700		50000	101	49800		50000	100
Manganese	1520		1500	101	2090		2000	105	2080		2000	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-286913/91 07/12/2017 14:48											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	48900		50000	98								
Iron	24900		25000	100								
Magnesium	48900		50000	98								
Manganese	2060		2000	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

ICV Source: MTTRCRIC_00048 Concentration Units: ug/L

CCV Source: MTTRCRIC_00048

Analyte	ICVL 240-286913/6 07/12/2017 08:41				CCVL 240-286913/93 07/12/2017 14:56							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5000		5000	100	5070		5000	101				
Iron	210		200	105	210		200	105				
Magnesium	5190		5000	104	5130		5000	103				
Manganese	15.2		15.0	101	15.3		15.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-286913/5 07/12/2017 08:36		CCB 240-286913/67 07/12/2017 13:04		CCB 240-286913/80 07/12/2017 14:00		CCB 240-286913/92 07/12/2017 14:52	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-286672/1-A

Instrument Code: I9 Batch No.: 286913

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	25	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-95-4	Magnesium	230	U		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICSA 240-286913/8 Instrument ID: I9

Lab File ID: I9071217A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**471940**	**94**
Iron	**200000**	**188760**	**94**
Magnesium	**500000**	**499040**	**100**
Manganese		**1.43**	
Aluminum	*500000*	*499980*	*100*
Antimony		*-0.113*	
Arsenic		*-0.646*	
Barium		*0.0180*	
Beryllium		*0.254*	
Boron		*-3.07*	
Cadmium		*0.0711*	
Chromium		*3.40*	
Cobalt		*0.417*	
Copper		*-5.12*	
Lead		*2.77*	
Lithium		*21.6*	
Molybdenum		*-1.27*	
Nickel		*-0.498*	
Potassium		*13.9*	
Selenium		*-6.04*	
Silicon		*7.27*	
Silver		*-0.490*	
Sodium		*92.2*	
Strontium		*0.744*	
Thallium		*2.71*	
Tin		*1.36*	
Titanium		*-0.553*	
Vanadium		*-2.54*	
Zinc		*-3.46*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Lab Sample ID: ICSAB 240-286913/9 Instrument ID: I9

Lab File ID: I9071217A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**479170**	**96**
Iron	**200000**	**192820**	**96**
Magnesium	**500000**	**520910**	**104**
Manganese	**500**	**496**	**99**
Aluminum	*500000*	*512080*	*102*
Antimony	*1000*	*1007*	*101*
Arsenic	*1000*	*1031*	*103*
Barium	*500*	*497*	*99*
Beryllium	*500*	*493*	*99*
Boron	*500*	*512*	*102*
Cadmium	*1000*	*1045*	*105*
Chromium	*500*	*493*	*99*
Cobalt	*500*	*510*	*102*
Copper	*500*	*527*	*105*
Lead	*1000*	*906*	*91*
Lithium	*500*	*553*	*111*
Molybdenum	*1000*	*929*	*93*
Nickel	*1000*	*1009*	*101*
Potassium	*10000*	*10546*	*105*
Selenium	*1000*	*1013*	*101*
Silicon	*10000*	*9798*	*98*
Silver	*1000*	*1078*	*108*
Sodium	*10000*	*10640*	*106*
Strontium	*1500*	*1458*	*97*
Thallium	*1000*	*962*	*96*
Tin	*500*	*511*	*102*
Titanium	*500*	*493*	*99*
Vanadium	*500*	*482*	*96*
Zinc	*1000*	*1042*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-82060-A-7-B MS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	1090		80	J	1000	101	75-125		6010C
Manganese	524		8.0	J	500	103	75-125		6010C
Calcium	89000		40000		50000	98	75-125		6010C
Magnesium	74000		25000		50000	98	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-82060-A-7-C MSD

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1090		1000	101	75-125	0	20		6010C
Manganese	526		500	104	75-125	1	20		6010C
Calcium	89100		50000	99	75-125	0	20		6010C
Magnesium	74200		50000	98	75-125	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-286672/2-A

Lab Name: TestAmerica Canton Job No.: 240-81987-1

Sample Matrix: Water LCS Source: MTICP1_00065

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	1040		104	80	120		6010C
Manganese	500	520		104	80	120		6010C
Calcium	50000	50200		100	80	120		6010C
Magnesium	50000	50800		102	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-82060-A-7-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-81987-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	80	J	130	U	NC		6010C
Manganese	8.0	J	26	U	NC		6010C
Calcium	40000		39400		0.94		6010C
Magnesium	25000		25400		0.61		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-81987-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		10000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-286672/1-A	07/11/2017 14:00	286672		50	50
LCS 240-286672/2-A	07/11/2017 14:00	286672		50	50
240-82060-A-7-B MS	07/11/2017 14:00	286672		50	50
240-82060-A-7-C MSD	07/11/2017 14:00	286672		50	50
240-81987-1	07/11/2017 14:00	286672		50	50
240-81987-2	07/11/2017 14:00	286672		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ICIS 240-286913/1	1		08:19	X	X	X	X																						
CALSTD 240-286913/2 IC			08:23	X	X	X	X																						
CALSTD 240-286913/3 IC			08:28	X	X	X	X																						
ICV 240-286913/4	1		08:32	X	X	X	X																						
ICB 240-286913/5	1		08:36		X		X																						
ICVL 240-286913/6	1		08:41	X	X	X	X																						
ZZZZZZ			08:45																										
ICSA 240-286913/8	1		08:49	X	X	X	X																						
ICSAB 240-286913/9	1		08:54	X	X	X	X																						
CCV 240-286913/10			08:58																										
CCB 240-286913/11			09:02																										
ZZZZZZ			09:06																										
ZZZZZZ			09:11																										
ZZZZZZ			09:15																										
ZZZZZZ			09:20																										
ZZZZZZ			09:24																										
ZZZZZZ			09:28																										
CCV 240-286913/18			09:33																										
CCB 240-286913/19			09:37																										
ZZZZZZ			09:41																										
ZZZZZZ			09:46																										
ZZZZZZ			09:50																										
ZZZZZZ			09:54																										
ZZZZZZ			09:58																										
ZZZZZZ			10:02																										
ZZZZZZ			10:07																										
ZZZZZZ			10:11																										
ZZZZZZ			10:15																										
ZZZZZZ			10:19																										
CCV 240-286913/30			10:23																										
CCB 240-286913/31			10:27																										
ZZZZZZ			10:32																										
ZZZZZZ			10:36																										
ZZZZZZ			10:41																										
ZZZZZZ			10:44																										
ZZZZZZ			10:49																										
ZZZZZZ			10:53																										
ZZZZZZ			10:57																										
ZZZZZZ			11:02																										
ZZZZZZ			11:06																										
ZZZZZZ			11:10																										
CCV 240-286913/42			11:15																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
CCB 240-286913/43			11:19																											
ZZZZZZ			11:23																											
ZZZZZZ			11:28																											
ZZZZZZ			11:32																											
ZZZZZZ			11:36																											
ZZZZZZ			11:40																											
ZZZZZZ			11:45																											
ZZZZZZ			11:49																											
ZZZZZZ			11:54																											
ZZZZZZ			11:58																											
ZZZZZZ			12:02																											
CCV 240-286913/54			12:07																											
CCB 240-286913/55			12:11																											
ZZZZZZ			12:15																											
ZZZZZZ			12:20																											
ZZZZZZ			12:24																											
ZZZZZZ			12:28																											
ZZZZZZ			12:33																											
ZZZZZZ			12:37																											
ZZZZZZ			12:42																											
ZZZZZZ			12:47																											
ZZZZZZ			12:51																											
ZZZZZZ			12:56																											
CCV 240-286913/66	1		13:00	X	X	X	X																							
CCB 240-286913/67	1		13:04		X		X																							
CCVL 240-286913/68			13:09																											
ZZZZZZ			13:13																											
ZZZZZZ			13:17																											
ZZZZZZ			13:22																											
ZZZZZZ			13:26																											
ZZZZZZ			13:31																											
MB 240-286672/1-A	1	R	13:35		X		X																							
LCS 240-286672/2-A	1	R	13:39	X	X	X	X																							
ZZZZZZ			13:43																											
240-82060-A-7-A SD ^5	5	D	13:48		X		X																							
ZZZZZZ			13:52																											
CCV 240-286913/79	1		13:56	X	X	X	X																							
CCB 240-286913/80	1		14:00		X		X																							
240-82060-A-7-B MS	1	D	14:04	X	X	X	X																							
240-82060-A-7-C MSD	1	D	14:08	X	X	X	X																							
ZZZZZZ			14:12																											
ZZZZZZ			14:17																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
240-81987-1	1	R	14:21		X		X																						
240-81987-2	1	R	14:26		X		X																						
ZZZZZZ			14:31																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
ZZZZZZ			14:44																										
CCV 240-286913/91	1		14:48	X	X	X	X																						
CCB 240-286913/92	1		14:52		X		X																						
CCVL 240-286913/93	1		14:56	X	X	X	X																						
ICSA 240-286913/94			15:01																										
ICSAB 240-286913/95			15:05																										
ZZZZZZ			15:09																										
ZZZZZZ			15:14																										
ZZZZZZ			15:18																										
CCVL 240-286913/99			15:22																										
ZZZZZZ			15:27																										
ZZZZZZ			15:31																										
ZZZZZZ			15:35																										
CCV 240-286913/103			15:39																										
CCB 240-286913/104			15:43																										
ZZZZZZ			15:48																										
ZZZZZZ			15:52																										
ZZZZZZ			15:56																										
ZZZZZZ			16:00																										
ZZZZZZ			16:04																										
ZZZZZZ			16:09																										
ZZZZZZ			16:13																										
ZZZZZZ			16:18																										
ZZZZZZ			16:22																										
ZZZZZZ			16:26																										
CCV 240-286913/115			16:31																										
CCB 240-286913/116			16:35																										
ZZZZZZ			16:39																										
ZZZZZZ			16:43																										
ZZZZZZ			16:48																										
ZZZZZZ			16:52																										
ZZZZZZ			16:56																										
ZZZZZZ			17:00																										
ZZZZZZ			17:05																										
ZZZZZZ			17:09																										
ZZZZZZ			17:13																										
ZZZZZZ			17:18																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-286913/127			17:22																										
CCB 240-286913/128			17:26																										
ZZZZZZ			17:30																										
ZZZZZZ			17:35																										
ZZZZZZ			17:39																										
ZZZZZZ			17:43																										
ZZZZZZ			17:48																										
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			18:00																										
ZZZZZZ			18:05																										
ZZZZZZ			18:09																										
CCV 240-286913/139			18:13																										
CCB 240-286913/140			18:17																										
ZZZZZZ			18:21																										
ZZZZZZ			18:25																										
ZZZZZZ			18:30																										
ZZZZZZ			18:34																										
ZZZZZZ			18:39																										
ZZZZZZ			18:43																										
ZZZZZZ			18:47																										
ZZZZZZ			18:52																										
ZZZZZZ			18:56																										
ZZZZZZ			19:00																										
CCV 240-286913/151			19:05																										
CCB 240-286913/152			19:09																										
ZZZZZZ			19:13																										
ZZZZZZ			19:17																										
ZZZZZZ			19:22																										
ZZZZZZ			19:26																										
ZZZZZZ			19:30																										
ZZZZZZ			19:35																										
ZZZZZZ			19:39																										
ZZZZZZ			19:43																										
ZZZZZZ			19:48																										
ZZZZZZ			19:52																										
CCV 240-286913/163			19:57																										
CCB 240-286913/164			20:01																										
ZZZZZZ			20:05																										
ZZZZZZ			20:09																										
ZZZZZZ			20:13																										
ZZZZZZ			20:18																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
ZZZZZZ			20:22																											
ZZZZZZ			20:27																											
ZZZZZZ			20:31																											
ZZZZZZ			20:36																											
ZZZZZZ			20:41																											
ZZZZZZ			20:45																											
CCV 240-286913/175			20:50																											
CCB 240-286913/176			20:54																											
ZZZZZZ			20:58																											
ZZZZZZ			21:03																											
ZZZZZZ			21:08																											
ZZZZZZ			21:12																											
ZZZZZZ			21:17																											
ZZZZZZ			21:22																											
ZZZZZZ			21:26																											
ZZZZZZ			21:30																											
ZZZZZZ			21:35																											
ZZZZZZ			21:39																											
CCV 240-286913/187			21:43																											
CCB 240-286913/188			21:47																											
ZZZZZZ			21:52																											
ZZZZZZ			21:56																											
ZZZZZZ			22:00																											
ZZZZZZ			22:05																											
ZZZZZZ			22:09																											
ZZZZZZ			22:13																											
ZZZZZZ			22:18																											
ZZZZZZ			22:22																											
ZZZZZZ			22:26																											
ZZZZZZ			22:31																											
CCV 240-286913/199			22:35																											
CCB 240-286913/200			22:39																											
ZZZZZZ			22:44																											
ZZZZZZ			22:48																											
ZZZZZZ			22:52																											
ZZZZZZ			22:56																											
ZZZZZZ			23:01																											
ZZZZZZ			23:05																											
ZZZZZZ			23:09																											
ZZZZZZ			23:13																											
ZZZZZZ			23:17																											
ZZZZZZ			23:22																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-286913/211			23:26																										
CCB 240-286913/212			23:30																										
ZZZZZZ			23:34																										
ZZZZZZ			23:39																										
ZZZZZZ			23:43																										
ZZZZZZ			23:47																										
ZZZZZZ			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:00																										
ZZZZZZ			00:05																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
CCV 240-286913/223			00:17																										
CCB 240-286913/224			00:22																										
ZZZZZZ			00:26																										
ZZZZZZ			00:30																										
ZZZZZZ			00:35																										
ZZZZZZ			00:39																										
ZZZZZZ			00:43																										
ZZZZZZ			00:48																										
ZZZZZZ			00:52																										
ZZZZZZ			00:56																										
ZZZZZZ			01:00																										
ZZZZZZ			01:04																										
CCV 240-286913/235			01:08																										
CCB 240-286913/236			01:12																										
ZZZZZZ			01:17																										
ZZZZZZ			01:21																										
ZZZZZZ			01:25																										
ZZZZZZ			01:29																										
ZZZZZZ			01:33																										
ZZZZZZ			01:37																										
ZZZZZZ			01:42																										
ZZZZZZ			01:46																										
ZZZZZZ			01:50																										
ZZZZZZ			01:55																										
CCV 240-286913/247			01:59																										
CCB 240-286913/248			02:03																										
ZZZZZZ			02:08																										
ZZZZZZ			02:12																										
ZZZZZZ			02:16																										
ZZZZZZ			02:21																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			02:25																										
ZZZZZZ			02:29																										
ZZZZZZ			02:34																										
ZZZZZZ			02:38																										
ZZZZZZ			02:43																										
ZZZZZZ			02:47																										
CCV 240-286913/259			02:51																										
CCB 240-286913/260			02:56																										
ZZZZZZ			03:00																										
ZZZZZZ			03:04																										
ZZZZZZ			03:09																										
ZZZZZZ			03:13																										
ZZZZZZ			03:17																										
ZZZZZZ			03:21																										
ZZZZZZ			03:26																										
ZZZZZZ			03:30																										
ZZZZZZ			03:33																										
ZZZZZZ			03:37																										
CCV 240-286913/271			03:42																										
CCB 240-286913/272			03:46																										
ZZZZZZ			03:50																										
ZZZZZZ			03:55																										
ZZZZZZ			03:59																										
ZZZZZZ			04:03																										
ZZZZZZ			04:07																										
ZZZZZZ			04:12																										
ZZZZZZ			04:16																										
ZZZZZZ			04:21																										
ZZZZZZ			04:25																										
ZZZZZZ			04:29																										
CCV 240-286913/283			04:34																										
CCB 240-286913/284			04:38																										
ZZZZZZ			04:42																										
ZZZZZZ			04:47																										
ZZZZZZ			04:51																										
ZZZZZZ			04:55																										
ZZZZZZ			05:00																										
ZZZZZZ			05:04																										
ZZZZZZ			05:08																										
ZZZZZZ			05:13																										
ZZZZZZ			05:17																										
ZZZZZZ			05:21																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/12/2017 08:19 End Date: 07/13/2017 07:46

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
CCV 240-286913/295			05:25																											
CCB 240-286913/296			05:29																											
ZZZZZZ			05:34																											
ZZZZZZ			05:38																											
ZZZZZZ			05:43																											
ZZZZZZ			05:47																											
ZZZZZZ			05:51																											
ZZZZZZ			05:55																											
ZZZZZZ			05:59																											
ZZZZZZ			06:03																											
ZZZZZZ			06:07																											
ZZZZZZ			06:11																											
CCV 240-286913/307			06:16																											
CCB 240-286913/308			06:20																											
ZZZZZZ			06:24																											
ZZZZZZ			06:29																											
ZZZZZZ			06:33																											
ZZZZZZ			06:37																											
ZZZZZZ			06:42																											
ZZZZZZ			06:46																											
ZZZZZZ			06:50																											
ZZZZZZ			06:54																											
ZZZZZZ			06:59																											
ZZZZZZ			07:03																											
CCV 240-286913/319			07:07																											
CCB 240-286913/320			07:12																											
ZZZZZZ			07:16																											
ZZZZZZ			07:20																											
ZZZZZZ			07:25																											
ZZZZZZ			07:29																											
ZZZZZZ			07:33																											
ZZZZZZ			07:38																											
CCV 240-286913/327			07:42																											
CCB 240-286913/328			07:46																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 07/17/2017 16:29 End Date: 07/17/2017 16:29

Lab Sample Id	D/F	Type	Time	Analytes																											
				CaCO3	HardCC	MgHARD																									
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
240-81987-1	1	R	16:29	X	X	X																									
240-81987-2	1	R	16:29	X	X	X																									
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												
ZZZZZZ			16:29																												

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 286672 Batch Start Date: 07/11/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 07/11/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00073	MTICP1 00065	MTICP2A 00073	MTTMHCL 00162
MB 240-286672/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-286672/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82060-A-7 MS		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82060-A-7 MSD		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-81987-H-1	SEMW-9S-070617	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-81987-K-2	SEMW-9I-070617	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00123					
MB 240-286672/1		3005A, 6010C		1 mL					
LCS 240-286672/2		3005A, 6010C		1 mL					
240-82060-A-7 MS		3005A, 6010C	D	1 mL					
240-82060-A-7 MSD		3005A, 6010C	D	1 mL					
240-81987-H-1	SEMW-9S-070617	3005A, 6010C	R	1 mL					
240-81987-K-2	SEMW-9I-070617	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB2
Pipette ID	mp1
Digestion Tube/Cup ID	1703076

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Name: Blank Acquired: 7/12/2017 8:19:35 Type: Cal
Method: ICP I9 6010 200.7 Methods(v255) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00070	.00155	.00036	.00006	.00603	.00122	.01816
Stddev	.00012	.00025	.00008	.00008	.00047	.00019	.00013
%RSD	17.550	16.159	22.338	147.10	7.8777	15.380	.69276

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0009	.00043	.00002	-.00045	.00014	.00287	.00764
Stddev	.0001	.00004	.00005	.00010	.00025	.00097	.00073
%RSD	8.443	9.9497	275.46	22.092	177.87	33.618	9.5968

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00011	.00078	.00007	.01184	.00076	.00098	-.0002
Stddev	.00015	.00005	.00015	.00039	.00011	.00031	.0002
%RSD	137.57	6.6727	220.88	3.2933	14.583	31.568	70.65

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00024	.00011	.00015	-.00027	.00072	.00186	.00071
Stddev	.00014	.00007	.00009	.00007	.00011	.00005	.00005
%RSD	59.559	66.604	59.108	26.357	15.064	2.6771	7.5032

Elem	Sr3464
IS Ref	(Y_3710)
Units	Cts/S
Avg	-.00035
Stddev	.00050
%RSD	144.19

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8396.7	4935.3	63592.	9256.1
Stddev	8.5	5.3	220.	50.6
%RSD	.10166	.10813	.34648	.54687

Sample Name: SCAL1-3051288 Acquired: 7/12/2017 8:23:59 Type: Cal
Method: ICP I9 6010 200.7 Methods(v255) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	As1890	B_1826	Ba4554	Be3130	Cd2288	Co2286	Cr2677
IS Ref	(Y_3600)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.52451	.07125	2.6312	17.948	7.1214	1.827	2.1524	.74725
Stddev	.00379	.00021	.0101	.028	.0289	.009	.0130	.00430
%RSD	.72267	.29546	.38291	.15358	.40547	.4693	.60420	.57487

Elem	Cu3273	Li6707	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
IS Ref	(Y_3600)	(Y_3710)	(Y_3600)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.64614	7.7094	3.7767	3.0258	1.1835	.23764	.1248	.07373
Stddev	.00380	.0080	.0186	.0233	.0074	.00138	.0006	.00059
%RSD	.58829	.10346	.49341	.76934	.62231	.58126	.5010	.80049

Elem	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Sr3464
IS Ref	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4778	4.8892	.16618	.37036	2.1589	.92286
Stddev	.0096	.0274	.00077	.00124	.0132	.00182
%RSD	.65006	.56087	.46505	.33360	.60937	.19770

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7692.7	4754.1	61336.	9155.1
Stddev	28.4	13.6	286.	44.9
%RSD	.36904	.28703	.46591	.49004

Sample Name: SCAL2-3079980 Acquired: 7/12/2017 8:28:28 Type: Cal
Method: ICP I9 6010 200.7 Methods(v255) Mode: IR Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Ca3179	Fe2599	K_7664	Mg2790	Na5895	Si2516
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.67882	9.1157	3.8226	3.2105	.74804	12.555	.27814
Stddev	.00312	.0160	.0077	.0090	.00080	.023	.00171
%RSD	.46033	.17546	.20147	.27991	.10646	.18614	.61459

Int. Std.	Y_3710
Units	Cts/S
Avg	9007.7
Stddev	21.7
%RSD	.24072

Sample Name: ICV-3102101 Acquired: 7/12/2017 8:32:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	756.60	12657.	389.06	1574.6	1483.2	1503.8	24484.	380.7
Stddev	7.16	70.	3.66	9.2	8.1	6.2	141.	2.2
%RSD	.94691	.55575	.94131	.58216	.54875	.41093	.57773	.5767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1484.3	1503.8	1497.1	12773.	25091.	1005.2	25603.	1521.5
Stddev	7.7	11.9	16.6	74.	64.	5.4	69.	13.5
%RSD	.51765	.79154	1.1055	.57645	.25545	.53326	.26816	.88716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1442.0	25039.	1502.9	373.68	380.9	380.55	1449.6	1482.6
Stddev	9.7	134.	5.9	2.06	2.5	3.91	8.0	13.2
%RSD	.66947	.53501	.39140	.55032	.6453	1.0268	.55180	.88735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICV-3102101 Acquired: 7/12/2017 8:32:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	755.07	1482.3	1527.2	5180.0	4507.8
Stddev	1.81	14.9	8.3	27.0	21.4
%RSD	.23938	1.0018	.54183	.52086	.47403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7521.5	4730.6	60690.	9170.6
Stddev	7.7	10.7	398.	39.7
%RSD	.10206	.22620	.65544	.43318

Sample Name: ICB Acquired: 7/12/2017 8:36:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22220	33.723	-.36391	6.3989	.13216	.06279	2.9435	.0721
Stddev	.05250	26.581	1.0054	.2152	.09157	.11183	2.8863	.0798
%RSD	23.628	78.821	276.27	3.3636	69.290	178.09	98.058	110.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07103	.09758	.18409	.85744	26.900	2.7695	-14.087	.08855
Stddev	.14211	.41129	.40869	2.3835	35.646	2.5024	16.622	.05593
%RSD	200.07	421.51	222.00	277.97	132.51	90.356	118.00	63.164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7326	15.948	-.15831	.02475	1.461	1.4184	.30572	.79676
Stddev	.2045	6.037	.08960	.97013	2.397	2.1772	.80764	.29833
%RSD	7.4842	37.854	56.594	3920.2	164.1	153.50	264.18	37.443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB Acquired: 7/12/2017 8:36:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.29149	.17912	.00201	-6.2527	-1.4739
Stddev	.49877	1.5809	.06729	.3102	6.6919
%RSD	171.11	882.57	3354.4	4.9607	454.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8297.3	4862.6	62708.	9163.4
Stddev	20.3	12.5	302.	87.6
%RSD	.24414	.25637	.48227	.95555

Sample Name: ICVL-3085197 Acquired: 7/12/2017 8:41:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.603	235.66	16.353	108.58	197.70	5.0600	5004.1	5.189
Stddev	.215	15.10	.537	.90	.63	.2635	18.0	.146
%RSD	2.0317	6.4067	3.2824	.82659	.32007	5.2076	.35948	2.822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.9429	10.601	20.876	209.87	5018.5	53.860	5193.3	15.163
Stddev	.1329	.264	.220	1.11	21.8	.855	36.7	.030
%RSD	1.3368	2.4936	1.0541	.52945	.43514	1.5881	.70688	.19596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40.693	4942.3	39.915	10.591	20.67	18.866	97.499	50.683
Stddev	.631	23.7	.551	.817	1.37	2.301	1.410	.279
%RSD	1.5516	.47927	1.3813	7.7126	6.646	12.195	1.4458	.55073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICVL-3085197 Acquired: 7/12/2017 8:41:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	20.111	8.1382	46.681	508.41	47.636
Stddev	.347	1.7999	.701	8.42	.921
%RSD	1.7264	22.116	1.5013	1.6559	1.9324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8055.3	4821.7	62227.	9199.0
Stddev	1.1	2.7	174.	9.0
%RSD	.01399	.05560	.27898	.09818

Sample Name: CRILL-2972455 Acquired: 7/12/2017 8:45:37 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.2914	236.24	9.2327	208.49	199.21	5.1268	5053.6
Stddev	.1980	17.43	1.5043	3.99	.86	.1911	66.3
%RSD	3.7427	7.3765	16.294	1.9120	.43313	3.7278	1.3113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.078	6.9453	5.6389	25.700	105.60	5034.2	53.511
Stddev	.121	.2522	.1533	1.062	1.16	9.9	.789
%RSD	5.816	3.6311	2.7180	4.1319	1.1018	.19591	1.4751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5235.4	14.779	9.9356	5032.6	39.715	3.2474	11.27
Stddev	21.8	.054	.2266	19.1	.890	1.0237	2.12
%RSD	.41713	.36838	2.2809	.37944	2.2413	31.524	18.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CRILL-2972455 Acquired: 7/12/2017 8:45:37 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.8954	98.737	50.956	9.3584	F 2.2203	16.634	515.31
Stddev	1.4873	1.805	.230	.5420	.9496	.253	7.19
%RSD	25.229	1.8278	.45156	5.7918	42.771	1.5213	1.3958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					7.0000		
Range					-50.500%		

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	49.426
Stddev	8.541
%RSD	17.281
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8079.9	4829.8	62427.	9204.7
Stddev	18.4	7.1	234.	29.0
%RSD	.22789	.14796	.37465	.31526

Sample Name: ICSA-2950210 Acquired: 7/12/2017 8:49:59 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.49035	499980.	-.64597	-3.0685	.01796	.25371	471940.
Stddev	.52202	2097.	2.4017	.6024	.02549	.05401	4572.
%RSD	106.46	.41936	371.79	19.631	141.93	21.289	.96877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0711	.41720	3.3967	-5.1193	188760.	13.861	21.595
Stddev	.1399	.25213	.1017	.5502	757.	42.425	.760
%RSD	196.7	60.434	2.9947	10.748	.40088	306.07	3.5181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	499040.	1.4320	-1.2666	92.242	-.49829	2.7716	-.1126
Stddev	2212.	.0712	.4666	2.715	1.0168	.9253	4.821
%RSD	.44328	4.9704	36.838	2.9433	204.05	33.386	4282.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: ICSA-2950210 Acquired: 7/12/2017 8:49:59 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-6.0384	1.3618	-.55261	2.7060	-2.5423	-3.4640	7.2707
Stddev	4.5213	1.5698	.21940	2.9804	4.3492	.0478	5.1270
%RSD	74.876	115.28	39.702	110.14	171.07	1.3797	70.515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	.74393
Stddev	3.8767
%RSD	521.11
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6218.0	4267.8	54034.	8877.9
Stddev	19.8	8.4	439.	57.8
%RSD	.31856	.19661	.81312	.65105

Sample Name: ICSAB-2994924 Acquired: 7/12/2017 8:54:23 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1078.1	512080.	1030.7	512.28	496.94	493.06	479170.
Stddev	1.5	645.	1.2	.55	1.08	3.17	2166.
%RSD	.13795	.12592	.11407	.10753	.21781	.64392	.45212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1045.	509.80	492.84	526.81	192820.	10546.	553.39
Stddev	2.	1.39	1.71	.50	431.	77.	2.05
%RSD	.1472	.27273	.34786	.09521	.22327	.72677	.37025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	520910.	495.65	928.57	10640.	1008.6	906.06	1007.
Stddev	2373.	.72	4.36	61.	3.1	1.57	5.
%RSD	.45549	.14621	.46938	.57554	.31055	.17349	.4767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB-2994924 Acquired: 7/12/2017 8:54:23 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1013.1	511.44	493.36	962.17	481.70	1042.1	9798.2
Stddev	5.0	1.85	.52	5.01	3.22	2.2	26.0
%RSD	.49733	.36155	.10526	.52048	.66870	.20733	.26549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1457.7
Stddev	10.1
%RSD	.69600
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6104.9	4211.4	53595.	8760.2
Stddev	19.3	10.0	35.	19.9
%RSD	.31553	.23850	.06467	.22713

Sample Name: CCV-3141968 Acquired: 7/12/2017 8:58:28 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1028.3	25816.	526.64	5245.1	2040.5	2069.0	51584.	519.0
Stddev	3.5	98.	4.02	39.0	12.8	9.1	334.	4.2
%RSD	.33628	.37839	.76388	.74354	.62707	.43908	.64655	.8069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2061.3	2027.5	2029.6	26015.	51373.	5136.3	52401.	2049.2
Stddev	18.0	9.5	10.0	245.	121.	12.4	159.	8.6
%RSD	.87092	.46999	.49364	.94278	.23622	.24189	.30372	.42165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1979.5	51726.	2067.9	500.98	527.2	521.39	5251.5	5162.3
Stddev	22.5	123.	20.7	4.24	7.5	8.88	46.4	25.1
%RSD	1.1373	.23757	1.0013	.84702	1.416	1.7025	.88445	.48715
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 8:58:28 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1021.1	2033.6	2108.0	5295.3	5090.4
Stddev	9.8	12.4	18.9	35.3	13.4
%RSD	.96144	.60914	.89676	.66573	.26315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7127.2	4597.6	58977.	8962.0
Stddev	26.9	12.5	194.	59.6
%RSD	.37769	.27236	.32895	.66537

Sample Name: CCB Acquired: 7/12/2017 9:02:26 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07471	11.392	.86297	7.3411	.16510	.10131	-6.7598	-.0978
Stddev	.27706	10.370	1.0361	.8280	.21123	.06771	5.5757	.0736
%RSD	370.83	91.031	120.06	11.280	127.95	66.840	82.484	75.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04844	.22275	.43504	1.7693	-1.3933	1.2259	-2.4481	-.09127
Stddev	.26691	.11732	.32084	.3236	20.698	1.8355	24.655	.01484
%RSD	551.03	52.670	73.749	18.291	1485.5	149.73	1007.1	16.261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9168	37.845	.34142	-.05419	2.493	-.52999	.30566	1.6369
Stddev	.4391	5.377	.32220	1.1654	2.510	1.9250	.38676	.0962
%RSD	15.055	14.207	94.372	2150.7	100.7	363.22	126.53	5.8778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 9:02:26 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.03296	-2.2671	-.36036	-4.2266	-4.4603
Stddev	.55881	5.0824	.04708	4.9404	2.2954
%RSD	1695.4	224.18	13.064	116.89	51.462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8265.3	4859.1	62436.	9135.6
Stddev	21.7	16.3	138.	24.4
%RSD	.26245	.33638	.22028	.26700

Sample Name: IEC Check As Acquired: 7/12/2017 9:06:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.36264	18.279	5155.2	4.7255	.11291	.11719	-112.94	.0278
Stddev	.14936	12.371	34.3	.2556	.12629	.20249	1.74	.1421
%RSD	41.187	67.682	.66499	5.4101	111.86	172.78	1.5368	511.1
Check ?	None	None	None	None	None	None	None	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13120	-.16465	.61653	.56134	-20.884	.05004	-1.8866	-.72874
Stddev	.13112	.28677	.42920	1.0081	34.388	1.4441	21.724	.04645
%RSD	99.941	174.18	69.616	179.59	164.66	2885.7	1151.5	6.3739
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53234	6.7712	-.01514	.70403	2.306	1.4501	-.15827	.41959
Stddev	.14287	2.7032	.41232	1.1913	2.034	.7950	.59570	.07064
%RSD	26.839	39.922	2723.4	169.21	88.21	54.828	376.38	16.835
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Sample Name: IEC Check As Acquired: 7/12/2017 9:06:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.33132	-1.5605	-3.1320	-13.469	-2.3965
Stddev	.34989	1.5848	.1157	3.944	4.2281
%RSD	105.60	101.55	3.6927	29.282	176.43
Check ?	None	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8474.1	4943.0	63848.	9366.0
Stddev	20.9	14.7	134.	15.6
%RSD	.24669	.29807	.20938	.16647

Sample Name: IEC Check Ti Acquired: 7/12/2017 9:11:11 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13282	53.863	6.0513	7.5147	.20234	-.09813	-102.31	.6863
Stddev	.79610	21.420	.9564	.4505	.08845	.04006	2.65	.0897
%RSD	599.39	39.767	15.805	5.9951	43.715	40.826	2.5933	13.07
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6241	1.2191	3.2037	-2.1750	-27.830	-.29706	-126.23	-.51696
Stddev	.9320	.1422	1.0713	1.2516	28.619	1.2725	6.14	.04994
%RSD	35.517	11.664	33.440	57.544	102.83	428.36	4.8665	9.6606
Check ?	Chk Pass	None	None	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10673	5.1695	-1.7252	.62605	-.3680	2.4388	2.1646	29009.
Stddev	.08592	2.6230	.2928	1.3608	1.587	2.2527	.3023	231.
%RSD	80.504	50.741	16.971	217.36	431.3	92.369	13.966	.79743
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Sample Name: IEC Check Ti Acquired: 7/12/2017 9:11:11 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.67099	-3.0174	-2.0997	8055.7	-1.4429
Stddev	1.6027	1.5786	.0630	1610.4	4.3017
%RSD	238.85	52.315	2.9991	19.992	298.14
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8407.0	4959.6	63756.	9360.9
Stddev	16.3	14.1	319.	15.8
%RSD	.19376	.28506	.50079	.16869

Sample Name: IEC Check Co Acquired: 7/12/2017 9:15:41 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31810	17.821	1.6431	1.7210	.04687	.10773	-118.30	-.0621
Stddev	.18916	26.824	.3427	.2284	.19573	.15529	3.29	.0077
%RSD	59.467	150.52	20.858	13.274	417.61	144.15	2.7846	12.37
Check ?	None	None	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9854.5	.06800	-.48321	-2.1736	-29.307	-.68284	-19.528	-.66598
Stddev	12.6	.14022	.50359	1.9194	3.110	.77932	23.826	.02882
%RSD	.12785	206.20	104.22	88.304	10.613	114.13	122.01	4.3275
Check ?	None	None	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17655	-19.761	-2.1351	1.4196	2.610	-.22975	-.18361	7.0787
Stddev	.17657	8.104	.1093	1.0510	1.328	.78498	.08402	.4682
%RSD	100.01	41.012	5.1202	74.031	50.88	341.67	45.759	6.6144
Check ?	None	None	Chk Pass	None	Chk Pass	None	None	None
Value								
Range								

Sample Name: IEC Check Co Acquired: 7/12/2017 9:15:41 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.3882	.04493	-3.0366	10.844	2.3835
Stddev	.2872	1.1987	.1305	7.848	3.0903
%RSD	5.3292	2668.3	4.2960	72.373	129.65
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8365.7	4918.6	63404.	9396.1
Stddev	25.9	13.9	302.	24.5
%RSD	.30919	.28219	.47590	.26029

Sample Name: IEC Check Al Acquired: 7/12/2017 9:20:02 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10469	500240.	-.27626	-1.9231	-.13794	.12349	-116.83
Stddev	.43454	839.	2.6537	.1933	.12638	.11984	1.15
%RSD	415.09	.16776	960.59	10.051	91.615	97.042	.98469
Check ?	None	None	Chk Pass	None	None	None	None
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0637	.27158	.12139	.93064	.31445	-17.190	-.82127
Stddev	.1289	.58209	.23212	.72318	.93743	27.447	3.6398
%RSD	202.4	214.33	191.21	77.707	298.11	159.67	443.19
Check ?	None	None	None	None	None	None	None
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-8.8996	.30258	-1.3989	15.251	.54206	-4.4285	-.0805
Stddev	11.065	.04194	.4512	3.116	.60447	1.8526	1.314
%RSD	124.34	13.859	32.250	20.431	111.51	41.834	1633.
Check ?	None	None	None	None	None	Chk Pass	Chk Pass
Value							
Range							

Sample Name: IEC Check Al Acquired: 7/12/2017 9:20:02 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.3369	.31196	6.0669	3.7152	-3.5832	-3.6304	-.77723
Stddev	.5644	.59895	.3484	1.0239	2.9416	.1330	4.2684
%RSD	42.217	191.99	5.7433	27.560	82.095	3.6632	549.19
Check ?	Chk Pass	None	None	Chk Pass	None	None	None
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	2.7142
Stddev	5.8064
%RSD	213.93
Check ?	None
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7372.3	4798.6	58418.	9487.9
Stddev	14.9	13.7	658.	15.0
%RSD	.20200	.28472	1.1261	.15793

Sample Name: IEC Check Fe Acquired: 7/12/2017 9:24:22 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16831	23.677	.32665	.40691	.64155	.21553	-97.186
Stddev	.68218	3.636	2.2558	.91317	.14338	.12565	1.172
%RSD	405.32	15.358	690.60	224.42	22.348	58.300	1.2060
Check ?	None	None	None	None	None	None	None
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.3958	12.931	12.821	-.24179	495030.	-101.72	-1.9055
Stddev	.1394	.073	.184	.10876	4001.	27.46	2.0557
%RSD	35.23	.56724	1.4348	44.980	.80812	26.991	107.89
Check ?	Chk Pass	None	None	Chk Pass	None	None	None
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-94.325	6.6167	-.08398	-20.020	-1.9862	-2.1790	-4.159
Stddev	20.453	.0566	.25296	11.962	.7287	.6396	2.226
%RSD	21.684	.85590	301.20	59.748	36.686	29.355	53.53
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: IEC Check Fe Acquired: 7/12/2017 9:24:22 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2592	3.0995	2.1238	-.86155	-.92689	-1.1279	-13.586
Stddev	2.7806	.7545	.2909	1.4991	2.9280	.1436	4.509
%RSD	123.08	24.343	13.698	174.00	315.90	12.728	33.187
Check ?	None	None	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	5.2040
Stddev	3.1637
%RSD	60.794
Check ?	None
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7840.8	4723.9	61046.	9246.6
Stddev	11.3	7.6	86.	62.6
%RSD	.14454	.16058	.14162	.67656

Sample Name: IEC Check V Acquired: 7/12/2017 9:28:48 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34333	77.137	-.53021	1.7665	-.06625	-.54442	-112.67	.3055
Stddev	.12716	14.220	1.0881	.1613	.09949	.22562	1.59	.0541
%RSD	37.037	18.435	205.21	9.1290	150.17	41.442	1.4094	17.71
Check ?	None	Chk Pass	None	None	None	Chk Pass	None	None
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15177	-.22886	-.05164	25.483	-27.009	-1.5194	-19.022	-.69264
Stddev	.23084	.19713	.04771	8.044	42.927	.4563	13.635	.01115
%RSD	152.10	86.135	92.384	31.565	158.93	30.035	71.678	1.6100
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.5541	-24.910	.17368	1.0165	.0696	-1.2106	-.56679	.60574
Stddev	.1446	4.703	.25220	.5463	1.130	.3688	.68168	.07322
%RSD	5.6629	18.879	145.21	53.739	1622.	30.462	120.27	12.087
Check ?	None	None	None	None	Chk Pass	None	None	None
Value								
Range								

Sample Name: IEC Check V Acquired: 7/12/2017 9:28:48 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.6290	5090.6	-3.3055	-4.6230	-.28935
Stddev	.6932	13.8	.0832	3.8179	3.1511
%RSD	26.368	.27204	2.5183	82.585	1089.0
Check ?	Chk Pass	None	None	None	None
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8367.7	4932.8	63408.	9340.0
Stddev	15.0	7.4	130.	15.1
%RSD	.17982	.14930	.20534	.16155

Sample Name: CCV-3141968 Acquired: 7/12/2017 9:33:31 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1042.8	26098.	533.23	5284.2	2046.3	2035.7	51739.	523.4
Stddev	4.6	145.	3.25	14.6	13.3	20.6	331.	1.4
%RSD	.44386	.55405	.61003	.27568	.65200	1.0121	.63946	.2584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2094.9	2069.5	2060.2	26285.	51373.	5139.2	52233.	2109.7
Stddev	.6	7.6	9.2	157.	305.	35.8	431.	11.0
%RSD	.02696	.36928	.44516	.59612	.59395	.69633	.82471	.52010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2010.3	51475.	2098.0	509.55	530.3	528.70	5339.0	5212.0
Stddev	5.3	394.	3.0	.90	2.3	3.45	6.9	22.0
%RSD	.26313	.76628	.14119	.17638	.4307	.65294	.12850	.42168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 9:33:31 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1045.2	2045.8	2142.0	5334.6	5067.4
Stddev	6.4	8.3	.7	99.0	44.9
%RSD	.61272	.40410	.03447	1.8558	.88529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7037.6	4553.8	58015.	8922.1
Stddev	5.4	7.1	136.	30.4
%RSD	.07607	.15671	.23480	.34060

Sample Name: CCB Acquired: 7/12/2017 9:37:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.47757	23.788	.75590	7.7563	.14886	.16731	-13.378	.0552
Stddev	.20212	9.983	.32078	.9945	.15565	.12650	2.591	.1089
%RSD	42.322	41.968	42.437	12.822	104.56	75.609	19.370	197.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28104	.37700	.42689	3.6393	13.271	2.3678	-2.3426	-.14205
Stddev	.30296	.30396	.45232	1.2459	43.389	1.1597	17.879	.03177
%RSD	107.80	80.625	105.96	34.236	326.95	48.977	763.20	22.366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8038	-3.0898	.22595	-.25073	1.761	-.25508	.55826	2.5952
Stddev	.4242	5.5624	.10278	.70808	.379	3.9774	.68210	.2650
%RSD	15.128	180.02	45.487	282.41	21.50	1559.3	122.18	10.212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 9:37:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.10534	.50557	-.32732	2.3831	-2.5841
Stddev	.26271	.64383	.10084	4.2395	7.5319
%RSD	249.40	127.35	30.806	177.90	291.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8223.8	4832.5	62700.	9112.8
Stddev	5.4	7.9	108.	13.9
%RSD	.06610	.16448	.17265	.15286

Sample Name: mb 240-286737/1-a Acquired: 7/12/2017 9:41:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31247	31.847	1.8319	7.0368	1.2861	.02148	140.74	.0086
Stddev	.22490	7.014	1.8131	.4060	.2637	.18560	3.85	.0421
%RSD	71.974	22.024	98.972	5.7693	20.503	864.20	2.7336	492.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05734	.69819	3.1191	23.268	33.814	2.5387	70.789	-.08024
Stddev	.10998	.17959	.3188	.587	33.319	1.2394	1.045	.03576
%RSD	191.78	25.722	10.221	2.5212	98.536	48.820	1.4764	44.572
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53092	59.281	.41890	.87543	.9806	1.1509	27.073	1.3279
Stddev	.33075	6.429	.57612	.34773	.1639	.5072	.355	.1870
%RSD	62.297	10.845	137.53	39.721	16.72	44.068	1.3131	14.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286737/1-a Acquired: 7/12/2017 9:41:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.2412	-.87011	-1.0530	44.826	-.32798
Stddev	.8362	1.7969	.1331	8.753	3.7678
%RSD	67.372	206.52	12.638	19.526	1148.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8139.5	4836.4	62720.	9217.3
Stddev	35.7	23.4	188.	12.6
%RSD	.43898	.48307	.29943	.13644

Sample Name: lcs 240-286737/2-a Acquired: 7/12/2017 9:46:17 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50.422	2042.5	2037.8	990.77	1952.6	48.989	50072.	50.20
Stddev	.169	12.7	16.1	3.63	11.3	.614	374.	.31
%RSD	.33471	.61963	.78872	.36633	.57954	1.2542	.74699	.6189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	492.65	199.66	248.22	1052.2	48936.	988.14	50568.	503.38
Stddev	4.53	.70	.84	6.5	331.	6.78	386.	2.43
%RSD	.91903	.34990	.34018	.61783	.67688	.68603	.76369	.48280
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	961.75	48995.	501.47	482.63	494.1	1986.1	2028.2	985.68
Stddev	6.00	354.	3.69	3.75	3.2	2.0	15.4	4.09
%RSD	.62386	.72337	.73650	.77786	.6382	.10089	.76034	.41458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286737/2-a Acquired: 7/12/2017 9:46:17 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1934.3	497.47	503.15	1095.1	978.42
Stddev	10.9	5.41	2.92	4.1	9.84
%RSD	.56396	1.0877	.58115	.37613	1.0058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7223.1	4575.7	59138.	9020.9
Stddev	12.3	.9	212.	71.8
%RSD	.17005	.01908	.35881	.79585

Sample Name: 240-82008-g-1-d Acquired: 7/12/2017 9:50:15 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1334	101040.	38.429	135.25	600.18	4.9798	662810.
Stddev	.3837	394.	1.844	1.18	1.80	.0380	4136.
%RSD	33.852	.39039	4.7971	.87486	.29925	.76268	.62394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.161	72.890	181.59	135.02	137250.	23357.	238.40
Stddev	.298	.587	1.28	.26	392.	76.	.44
%RSD	25.67	.80499	.70597	.18890	.28578	.32629	.18519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	234910.	2486.9	6.0103	2230.0	200.34	59.295	5.445
Stddev	690.	15.1	.0928	17.9	.36	1.756	1.601
%RSD	.29367	.60720	1.5442	.80094	.18042	2.9608	29.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82008-g-1-d Acquired: 7/12/2017 9:50:15 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7409	35.046	2630.0	-1.0528	226.44	589.20	2063.9
Stddev	3.1633	.381	14.4	.6249	1.64	5.80	19.8
%RSD	181.71	1.0863	.54762	59.360	.72549	.98476	.95801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	668.23
Stddev	4.66
%RSD	.69776
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6307.8	4538.7	58451.	9367.0
Stddev	18.8	7.5	192.	21.3
%RSD	.29823	.16548	.32846	.22784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.123%	91.963%	91.916%	101.20%
Range				

Sample Name: SD 240-82008-g-1-d@5 Acquired: 7/12/2017 9:54:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12202	20926.	7.7744	29.276	125.12	1.1319	143450.
Stddev	.37581	8.	1.3836	.412	.51	.1099	96.
%RSD	307.98	.03830	17.797	1.4064	.40716	9.7080	.06657
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1522	14.195	39.545	28.179	29439.	4732.4	47.387
Stddev	.0670	.188	.772	.168	15.	37.6	.829
%RSD	44.04	1.3268	1.9521	.59493	.04971	.79457	1.7489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50184.	531.50	1.1247	464.28	39.135	13.652	2.030
Stddev	425.	5.45	.1480	10.35	.424	1.248	2.008
%RSD	.84721	1.0250	13.162	2.2291	1.0837	9.1409	98.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-82008-g-1-d@5 Acquired: 7/12/2017 9:54:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5267	6.3008	549.14	.26066	44.501	115.61	419.06
Stddev	1.8676	.7111	4.98	1.5525	2.338	.29	2.24
%RSD	122.33	11.287	.90715	595.58	5.2541	.24730	.53412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	142.13
Stddev	2.54
%RSD	1.7904
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7374.0	4715.7	60426.	9255.8
Stddev	6.3	4.5	393.	11.3
%RSD	.08481	.09591	.65037	.12246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.821%	95.550%	95.022%	99.997%
Range				

Sample Name: PDS 240-82008-g-1-d Acquired: 7/12/2017 9:58:52 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.641	101030.	2129.2	1157.1	2514.3	51.349	695110.
Stddev	.377	681.	5.1	1.2	16.6	.370	6314.
%RSD	.72910	.67400	.23915	.10562	.66196	.72076	.90837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.34	605.44	368.74	383.28	134490.	73429.	1256.3
Stddev	.32	3.06	.94	.53	813.	528.	10.2
%RSD	.6063	.50579	.25506	.13717	.60433	.71947	.81579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	280180.	2917.0	939.51	52693.	727.12	509.17	500.1
Stddev	1673.	13.9	2.99	353.	3.79	.61	3.8
%RSD	.59722	.47786	.31873	.67045	.52179	.11887	.7665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-82008-g-1-d Acquired: 7/12/2017 9:58:52 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2037.6	2216.9	3587.1	1994.7	689.70	1127.0	2964.7
Stddev	9.3	8.2	3.4	2.6	7.46	3.8	20.2
%RSD	.45743	.36995	.09489	.13267	1.0821	.34039	.68209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1569.0
Stddev	16.3
%RSD	1.0372
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6096.3	4446.9	57260.	9301.5
Stddev	20.6	17.6	101.	59.7
%RSD	.33711	.39678	.17626	.64181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.603%	90.104%	90.043%	100.49%
Range				

Sample Name: 240-82008-g-1-e ms Acquired: 7/12/2017 10:02:56 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48.645	119610.	1973.6	1080.7	2413.9	48.942	653470.
Stddev	.503	337.	9.2	2.4	3.2	.147	4799.
%RSD	1.0337	.28146	.46612	.22278	.13458	.29945	.73432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.05	561.95	381.83	367.58	134050.	75387.	1194.2
Stddev	.31	3.40	2.65	2.93	123.	161.	2.1
%RSD	.6310	.60475	.69345	.79690	.09151	.21292	.17662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	275490.	2800.5	839.83	49397.	687.07	470.83	172.2
Stddev	1154.	16.5	6.62	113.	4.24	2.92	2.8
%RSD	.41898	.58922	.78883	.22896	.61768	.61997	1.602
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82008-g-1-e ms Acquired: 7/12/2017 10:02:56 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1868.2	1914.3	3782.2	1838.8	688.33	1379.5	4152.5
Stddev	10.8	12.4	8.4	15.8	4.71	5.4	51.8
%RSD	.57720	.64682	.22324	.86094	.68496	.39165	1.2482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1488.3
Stddev	10.0
%RSD	.67205
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6152.8	4473.2	57604.	9310.2
Stddev	.7	7.2	163.	50.0
%RSD	.01089	.16174	.28286	.53747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.276%	90.637%	90.584%	100.58%
Range				

Sample Name: 240-82008-g-1-f msd Acquired: 7/12/2017 10:07:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48.280	106660.	1947.6	1019.7	2341.0	48.642	606100.
Stddev	.531	417.	20.7	6.1	3.0	.699	3562.
%RSD	1.0999	.39050	1.0623	.60261	.12875	1.4375	.58767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48.38	546.57	355.44	353.15	127570.	70520.	1167.3
Stddev	.36	6.74	1.52	1.72	167.	165.	6.8
%RSD	.7523	1.2334	.42864	.48841	.13063	.23382	.58605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	254260.	2657.4	820.37	48946.	659.81	466.75	153.8
Stddev	915.	12.2	9.98	230.	5.85	2.71	3.6
%RSD	.35972	.45832	1.2160	.47078	.88627	.57958	2.318
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82008-g-1-f msd Acquired: 7/12/2017 10:07:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1848.7	1868.0	3329.5	1811.6	658.67	1218.6	3049.5
Stddev	17.7	19.9	18.5	16.1	1.59	12.0	10.9
%RSD	.95476	1.0674	.55701	.88693	.24100	.98417	.35810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1452.3
Stddev	6.9
%RSD	.47736
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6230.8	4492.6	57485.	9262.6
Stddev	29.6	12.3	185.	27.7
%RSD	.47540	.27484	.32137	.29906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.205%	91.030%	90.397%	100.07%
Range				

Sample Name: lb 240-286574/1-b Acquired: 7/12/2017 10:11:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.37755	46.039	2.8717	6.7571	1.1661	-.03772	182.17
Stddev	.40423	12.812	.6784	.6052	.2278	.09362	2.68
%RSD	107.07	27.830	23.623	8.9568	19.532	248.18	1.4691
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0340	-.14054	.36910	3.0805	26.872	36.647	.97247
Stddev	.0173	.28093	.23944	.6329	.732	38.500	1.1541
%RSD	50.93	199.89	64.870	20.544	2.7238	105.06	118.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	76.260	-.13663	2.3283	F 14199.	1.0343	1.4057	.4207
Stddev	15.432	.03404	.2965	80.	.3738	.7618	.8532
%RSD	20.236	24.911	12.736	.56239	36.143	54.190	202.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				1000.0			
Low Limit				-1000.0			

Sample Name: lb 240-286574/1-b Acquired: 7/12/2017 10:11:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.0191	29.996	3.1718	-.93057	-.78144	-1.3766	53.774
Stddev	1.3858	.936	.2905	.97883	.95898	.2096	7.974
%RSD	68.632	3.1215	9.1604	105.19	122.72	15.226	14.829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	-.61387
Stddev	1.6030
%RSD	261.14
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8015.5	4779.1	61939.	9173.9
Stddev	22.4	11.2	101.	33.4
%RSD	.27890	.23440	.16256	.36376

Sample Name: mb 240-286725/2-a Acquired: 7/12/2017 10:15:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.24743	36.054	1.4164	5.0421	1.4166	.08380	184.23	.0740
Stddev	.31720	20.489	1.3791	.8580	.2425	.14546	4.10	.1574
%RSD	128.20	56.829	97.367	17.016	17.122	173.59	2.2248	212.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04229	.54526	2.4174	21.669	75.835	2.5302	63.240	-.11309
Stddev	.13714	.24348	.1253	1.588	2.363	2.6451	16.381	.02230
%RSD	324.26	44.654	5.1819	7.3308	3.1159	104.54	25.903	19.716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35747	81.782	.76342	.65619	2.884	-.03657	26.940	.90901
Stddev	.21591	6.415	.33293	.82926	.368	.96296	.267	.22325
%RSD	60.399	7.8441	43.611	126.38	12.76	2633.3	.98987	24.559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286725/2-a Acquired: 7/12/2017 10:15:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.1121	-3.9198	-.99004	49.096	1.1602
Stddev	.5930	3.2538	.20182	5.503	3.5843
%RSD	53.320	83.009	20.386	11.209	308.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8119.7	4819.2	62852.	9209.5
Stddev	47.2	25.7	166.	7.1
%RSD	.58120	.53333	.26379	.07676

Sample Name: lcs 240-286725/3-a Acquired: 7/12/2017 10:19:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50.448	2028.1	1985.9	963.42	1962.8	48.230	208.51	49.53
Stddev	.167	10.4	12.4	8.07	1.3	.155	2.75	.40
%RSD	.33192	.51439	.62260	.83731	.06470	.32113	1.3200	.8109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	487.49	199.93	253.25	1055.2	3.0962	962.57	43.468	511.37
Stddev	2.41	1.01	1.49	5.2	29.530	2.96	9.407	3.66
%RSD	.49342	.50361	.58774	.49074	953.77	.30803	21.641	.71632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	956.76	83.956	495.51	504.64	486.4	1933.7	1959.4	972.02
Stddev	6.42	4.591	3.07	4.60	1.7	14.9	14.0	3.82
%RSD	.67108	5.4687	.61965	.91126	.3498	.76934	.71322	.39326
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286725/3-a Acquired: 7/12/2017 10:19:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1944.4	494.72	478.16	1066.4	997.99
Stddev	13.7	2.30	2.66	3.4	4.49
%RSD	.70670	.46579	.55525	.31521	.44957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7933.1	4777.6	62332.	9202.8
Stddev	41.7	27.8	205.	16.5
%RSD	.52515	.58167	.32968	.17954

Sample Name: CCV-3141968 Acquired: 7/12/2017 10:23:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1017.0	25516.	524.41	5155.0	2006.3	1969.1	50420.	511.3
Stddev	4.9	52.	3.75	20.7	2.6	5.4	86.	2.5
%RSD	.47801	.20266	.71601	.40238	.13074	.27593	.17004	.4947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2062.5	2029.0	2014.7	25742.	50121.	5019.2	50766.	2073.7
Stddev	9.2	9.7	9.6	68.	57.	2.9	131.	7.9
%RSD	.44661	.47705	.47416	.26442	.11385	.05689	.25822	.38071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1980.8	50119.	2065.2	501.54	520.7	523.12	5240.7	5077.2
Stddev	13.7	26.	9.5	2.56	4.3	2.22	25.7	24.9
%RSD	.69122	.05093	.46136	.51128	.8291	.42465	.49132	.48969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 10:23:54 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1039.2	2004.8	2093.4	5193.9	4929.6
Stddev	4.9	6.8	10.5	57.0	11.6
%RSD	.46985	.33818	.50382	1.0973	.23618
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7105.4	4614.3	58976.	9127.4
Stddev	9.5	11.0	114.	9.3
%RSD	.13360	.23795	.19269	.10209

Sample Name: CCB Acquired: 7/12/2017 10:27:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26224	13.541	.29349	8.4967	.24449	.29000	-8.8178	-.0188
Stddev	.33269	17.651	1.6304	1.0869	.21617	.09745	2.0036	.0098
%RSD	126.86	130.35	555.52	12.792	88.416	33.603	22.722	52.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.20127	.26515	1.6504	2.8540	20.971	3.3154	-.25202	-.08164
Stddev	.03530	.16571	.4762	.7459	6.627	.2824	4.2042	.02479
%RSD	17.538	62.496	28.852	26.136	31.603	8.5192	1668.2	30.366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9746	18.707	.03818	.12782	1.895	1.7281	.19732	2.1600
Stddev	.1290	1.766	.51027	.96740	1.937	.4464	.13732	.1413
%RSD	4.3354	9.4390	1336.6	756.86	102.2	25.834	69.590	6.5435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 10:27:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.24059	-1.4653	-.27476	.22947	-2.3294
Stddev	.42940	1.4678	.13453	4.9739	1.9837
%RSD	178.48	100.17	48.962	2167.6	85.158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8262.4	4867.7	62759.	9241.5
Stddev	15.2	8.2	89.	50.4
%RSD	.18424	.16782	.14171	.54542

Sample Name: 460-136581-a-8-g Acquired: 7/12/2017 10:32:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31773	26.061	1.3662	9.7258	2.9881	.05924	205.73	.1728
Stddev	.09226	13.719	1.7203	1.1507	.0331	.07122	5.15	.1426
%RSD	29.037	52.643	125.92	11.831	1.1085	120.22	2.5041	82.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05776	1.4515	4.9645	5206.6	48.437	4.3001	73.665	7.8543
Stddev	.08627	.2020	.3548	45.8	12.214	.5819	4.256	.0439
%RSD	149.35	13.919	7.1460	.88048	25.217	13.532	5.7776	.55946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.70277	95.893	.37418	.21084	.7795	2.7964	25.135	2.5844
Stddev	.24464	1.272	.16866	1.4198	2.328	1.8796	1.086	.3580
%RSD	34.811	1.3262	45.074	673.39	298.6	67.216	4.3196	13.851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 460-136581-a-8-g Acquired: 7/12/2017 10:32:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-3.2869	-.98532	8.3248	82.432	1.8646
Stddev	.5459	.36816	.1585	2.577	4.2110
%RSD	16.608	37.364	1.9037	3.1261	225.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8242.1	4807.1	63109.	9459.4
Stddev	8.8	6.3	285.	33.6
%RSD	.10684	.13207	.45233	.35496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.159%	97.402%	99.241%	102.20%
Range				

Sample Name: SD 460-136581-a-8g@5 Acquired: 7/12/2017 10:36:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.58441	5.1821	-.24834	4.4145	.44530	-.02916	-36.226	.0551
Stddev	.52588	28.946	.99420	.6844	.00700	.17648	3.111	.0954
%RSD	89.985	558.58	400.33	15.504	1.5711	605.18	8.5875	173.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02438	.27529	1.7970	1025.0	-1.5007	.58085	16.099	1.0345
Stddev	.23840	.12684	.3850	4.8	26.255	1.8454	11.255	.0174
%RSD	977.95	46.076	21.422	.47131	1749.5	317.70	69.908	1.6849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14870	21.433	.22934	.67647	.9701	-.57924	4.4723	.26242
Stddev	.06407	6.358	.27374	.38942	1.355	3.4346	.3689	.22190
%RSD	43.085	29.665	119.36	57.567	139.7	592.95	8.2483	84.560
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 460-136581-a-8g@5 Acquired: 7/12/2017 10:36:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.8851	-2.5663	-.53498	8.0943	-3.1406
Stddev	.2799	2.2122	.09299	3.4621	2.8174
%RSD	14.848	86.200	17.381	42.772	89.708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8475.6	4922.1	64872.	9696.6
Stddev	12.6	5.8	118.	23.7
%RSD	.14868	.11808	.18242	.24390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.94%	99.732%	102.01%	104.76%
Range				

Sample Name: PDS 460-136581-a-8-g Acquired: 7/12/2017 10:41:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.078	2082.6	2138.8	1076.7	2038.4	50.729	50643.	52.92
Stddev	.355	9.1	9.2	4.4	13.2	.192	173.	.10
%RSD	.69593	.43509	.42825	.41197	.64902	.37841	.34160	.1859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	517.70	206.07	267.87	5895.2	50317.	1037.8	51481.	514.88
Stddev	2.14	.38	.34	26.9	378.	11.2	241.	2.12
%RSD	.41365	.18377	.12831	.45679	.75094	1.0764	.46892	.41097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1032.7	50861.	513.91	502.03	527.2	2133.1	2123.0	1035.5
Stddev	3.9	471.	2.37	5.36	4.4	12.4	7.6	3.5
%RSD	.37851	.92646	.46146	1.0685	.8286	.58121	.35689	.34240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: PDS 460-136581-a-8-g Acquired: 7/12/2017 10:41:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2012.5	514.66	520.91	1183.0	1014.0
Stddev	8.4	4.22	2.07	25.7	12.5
%RSD	.41842	.82047	.39726	2.1761	1.2300
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7185.1	4518.0	59438.	9336.3
Stddev	6.9	4.6	167.	17.6
%RSD	.09650	.10220	.28112	.18839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.570%	91.545%	93.468%	100.87%
Range				

Sample Name: 460-136581-a-8-hms@5 Acquired: 7/12/2017 10:44:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 196.68	401.14	967.63	198.56	9474.0	9.6420	208.05
Stddev	.86	11.78	6.74	.04	244.0	.0986	5.19
%RSD	.43958	2.9366	.69636	.02053	2.5760	1.0223	2.4952
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	197.2	94.741	959.22	52.331	1252.6	221.33	197.42
Stddev	1.6	.866	1.49	.289	20.1	19.68	1.40
%RSD	.8239	.91378	.15495	.55182	1.6017	8.8919	.70831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	232.56	102.36	187.43	246.10	95.809	1010.2	96.68
Stddev	20.09	.05	1.93	6.78	1.016	7.4	1.13
%RSD	8.6389	.04997	1.0318	2.7551	1.0605	.73124	1.169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 460-136581-a-8-hms@5 Acquired: 7/12/2017 10:44:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	207.74	384.68	189.77	391.39	96.919	93.774	222.84
Stddev	1.58	7.75	.69	5.99	5.111	1.294	16.40
%RSD	.75876	2.0153	.36139	1.5292	5.2734	1.3795	7.3581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	203.09
Stddev	3.08
%RSD	1.5173
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8295.3	4869.8	63767.	9469.0
Stddev	24.4	13.6	114.	60.7
%RSD	.29429	.27956	.17894	.64085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.792%	98.672%	100.28%	102.30%
Range				

Sample Name: 460-136581-a-8imsd@5 Acquired: 7/12/2017 10:49:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 198.43	422.14	980.37	196.75	9628.0	9.4721	8.6481
Stddev	1.42	30.08	7.33	.99	70.5	.1357	3.1363
%RSD	.71455	7.1265	.74754	.50542	.73275	1.4322	36.266
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	199.7	94.814	979.26	51.541	1258.8	-14.012	197.22
Stddev	1.6	.919	2.94	.273	5.7	24.638	2.12
%RSD	.7833	.96925	.30015	.52961	.45088	175.84	1.0769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.734	102.06	185.78	36.816	96.268	1022.5	98.63
Stddev	29.756	.39	2.34	4.198	.776	7.7	2.02
%RSD	201.95	.37891	1.2589	11.402	.80651	.75225	2.045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 460-136581-a-8imsd@5 Acquired: 7/12/2017 10:49:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	202.12	387.76	189.70	388.60	96.557	94.352	223.10
Stddev	.87	1.31	.81	1.82	.636	.498	4.78
%RSD	.43231	.33687	.42801	.46717	.65877	.52773	2.1411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	195.24
Stddev	4.30
%RSD	2.2003
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8266.4	4876.7	63634.	9483.3
Stddev	20.3	10.8	211.	14.5
%RSD	.24539	.22183	.33214	.15298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.448%	98.812%	100.07%	102.45%
Range				

Sample Name: 240-81858-a-2-e Acquired: 7/12/2017 10:53:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.61136	34.549	1.8272	24.791	200.32	-.00908	653.20	.2127
Stddev	.15529	8.334	.4601	.375	1.13	.10707	9.59	.0705
%RSD	25.400	24.123	25.181	1.5135	.56425	1179.1	1.4679	33.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09302	3.2240	937.44	50.688	78.979	80.486	3647.9	1.1129
Stddev	.28444	.1701	6.34	1.639	12.223	1.735	6.4	.0400
%RSD	305.79	5.2758	.67612	3.2324	15.476	2.1560	.17487	3.5979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3550	4126.3	.76501	1.0139	.7759	4.4742	54.416	7.6864
Stddev	.1660	21.1	.21125	.7852	1.145	.8883	1.481	.0865
%RSD	7.0497	.51164	27.614	77.441	147.5	19.853	2.7217	1.1259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-81858-a-2-e Acquired: 7/12/2017 10:53:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.6575	-1.3654	2.5093	4840.7	4.1428
Stddev	.4273	2.0352	.2485	55.7	1.6806
%RSD	16.080	149.05	9.9047	1.1511	40.567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8078.7	4769.3	62441.	9345.3
Stddev	8.3	4.5	303.	7.0
%RSD	.10282	.09488	.48536	.07464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.212%	96.636%	98.191%	100.96%
Range				

Sample Name: lb 240-286570/1-b Acquired: 7/12/2017 10:57:49 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02136	53.114	F 6.5873	F 476.01	F 173.78	.08654
Stddev	.23320	10.237	1.9060	5.62	.61	.00907
%RSD	1091.9	19.274	28.935	1.1799	.35087	10.480
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
High Limit			5.0000	100.00	10.000	
Low Limit			-1000.0	-1000.0	-1000.0	

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2347.2	-.0349	.63794	2.3520	.40719	3.2132
Stddev	29.3	.1815	.14708	.1504	.68489	.7971
%RSD	1.2469	520.6	23.056	6.3925	168.20	24.808
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	1000.0					
Low Limit	-1000.0					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	924.18	20.461	499.11	-.04968	.02314	F 1228100.
Stddev	53.34	3.064	6.84	.02823	.16746	4435.
%RSD	5.7717	14.976	1.3701	56.820	723.55	.36112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						1000.0
Low Limit						-1000.0

Sample Name: lb 240-286570/1-b Acquired: 7/12/2017 10:57:49 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.5699	-.15949	.8179	F 6.2740	1.8705	.32144
Stddev	.3915	1.0309	.7950	1.7997	.1024	.25719
%RSD	10.967	646.37	97.20	28.685	5.4740	80.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				5.0000		
Low Limit				-1000.0		

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.3827	-4.0462	F 128.10	F 756.79	.14444
Stddev	1.9681	3.4580	1.76	21.47	2.0075
%RSD	30.835	85.464	1.3760	2.8363	1389.9
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit			20.000	500.00	
Low Limit			-1000.0	-1000.0	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6253.9	4252.0	53438.	9021.0
Stddev	24.3	16.2	215.	14.8
%RSD	.38881	.38170	.40197	.16387

Sample Name: mb 240-286699/2-a Acquired: 7/12/2017 11:02:17 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22974	5.0291	-.22815	5.2564	1.2392	-.05434	283.34	.0937
Stddev	.21617	27.316	.63624	.3843	.1824	.06740	2.91	.0795
%RSD	94.096	543.16	278.87	7.3116	14.720	124.03	1.0254	84.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12485	.50877	3.7920	22.787	55.008	4.4963	100.51	.06428
Stddev	.28886	.08420	.4243	1.953	10.775	1.8316	14.57	.06062
%RSD	231.36	16.551	11.190	8.5697	19.587	40.737	14.494	94.303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14946	436.86	.32238	.11446	1.280	2.4536	.09165	.41089
Stddev	.20040	27.62	.37329	.96372	2.026	1.4282	.28550	.13746
%RSD	134.09	6.3220	115.79	841.96	158.3	58.210	311.52	33.454
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286699/2-a Acquired: 7/12/2017 11:02:17 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.1516	-.37483	2.2888	81.010	-3.2441
Stddev	.6834	2.3154	.0975	7.340	3.5115
%RSD	59.342	617.72	4.2604	9.0603	108.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8253.9	4867.9	63380.	9361.9
Stddev	25.3	13.7	116.	8.3
%RSD	.30617	.28180	.18231	.08846

Sample Name: lcs 240-286699/3-a Acquired: 7/12/2017 11:06:40 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56.868	2128.8	2334.7	F 1494.6	2178.4	49.668
Stddev	.664	3.0	18.2	11.5	3.5	.569
%RSD	1.1671	.14014	.77995	.76908	.15939	1.1462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				1000.0		
Range				20.500%		

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52873.	54.21	538.46	211.12	270.13	1069.1
Stddev	85.	.32	3.16	1.27	1.74	2.7
%RSD	.16111	.5967	.58624	.60205	.64490	.25204
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54179.	1078.1	50824.	528.63	989.87	1226100.
Stddev	93.	3.7	203.	2.97	6.72	3603.
%RSD	.17083	.34067	.39860	.56205	.67905	.29389
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
Value						
Range						

Sample Name: lcs 240-286699/3-a Acquired: 7/12/2017 11:06:40 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	546.32	470.83	533.8	2313.2	2204.9	1033.5
Stddev	3.74	3.71	6.6	17.7	15.4	7.7
%RSD	.68490	.78828	1.240	.76319	.69931	.74472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1927.2	518.44	F 702.88	F 2035.6	995.81
Stddev	12.0	1.90	5.36	17.1	9.37
%RSD	.62014	.36682	.76288	.84212	.94065
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value			500.00	1000.0	
Range			20.500%	20.500%	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6097.3	4214.3	53119.	9064.4
Stddev	9.5	7.9	232.	7.0
%RSD	.15638	.18763	.43717	.07766

Sample Name: 240-81940-b-1-c Acquired: 7/12/2017 11:10:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4652	43883.	18.269	636.12	184.72	.81962
Stddev	.1323	108.	1.223	8.52	.54	.04020
%RSD	9.0263	.24601	6.6934	1.3387	.29313	4.9048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 889390.	6.313	7.9914	45.753	8.3821	1313.5
Stddev	10944.	.275	.2136	.252	.1940	7.4
%RSD	1.2306	4.353	2.6729	.54995	2.3138	.56131
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14635.	664.26	13636.	803.31	11.456	F 1161300.
Stddev	53.	6.01	95.	2.31	.230	8483.
%RSD	.36203	.90541	.69618	.28763	2.0054	.73046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81940-b-1-c Acquired: 7/12/2017 11:10:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25.423	29.537	6.481	9.0148	3.1086	11.807
Stddev	.599	.614	1.344	3.3380	.4666	.168
%RSD	2.3576	2.0772	20.73	37.028	15.011	1.4248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.6422	4.3829	303.56	12630.	2226.6
Stddev	.9687	4.2291	8.98	169.	21.7
%RSD	14.584	96.493	2.9576	1.3399	.97591
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5772.2	4320.3	56079.	9416.0
Stddev	14.2	4.1	128.	43.3
%RSD	.24558	.09406	.22762	.45981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.744%	87.539%	88.186%	101.73%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 11:15:20 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1011.3	25625.	520.95	5150.9	2000.3	1945.4	50387.	510.0
Stddev	2.2	45.	2.43	2.4	1.0	3.4	62.	1.3
%RSD	.22060	.17420	.46670	.04669	.04923	.17600	.12382	.2606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2062.8	2026.0	2009.9	25766.	50092.	5043.5	50940.	2077.9
Stddev	6.0	1.6	5.5	45.	116.	9.6	40.	2.2
%RSD	.28978	.07919	.27478	.17377	.23125	.19054	.07902	.10415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1983.6	50027.	2062.8	499.54	516.9	523.79	5226.2	5034.7
Stddev	10.4	110.	5.2	2.45	1.4	5.02	24.7	31.6
%RSD	.52289	.22086	.25099	.49109	.2673	.95796	.47204	.62756
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 11:15:20 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1031.4	2006.5	2089.1	5216.4	4946.2
Stddev	5.0	3.8	5.4	72.8	16.8
%RSD	.48541	.18860	.25966	1.3960	.33881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7095.6	4603.6	58932.	9068.1
Stddev	15.8	9.3	46.	27.1
%RSD	.22316	.20123	.07870	.29833

Sample Name: CCB Acquired: 7/12/2017 11:19:20 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.67849	26.295	.82775	8.1629	.05914	.18227	3.9657	.0916
Stddev	.14556	21.415	2.7251	.3914	.10450	.08046	9.3149	.0675
%RSD	21.453	81.442	329.21	4.7953	176.72	44.144	234.89	73.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.07226	.35866	.79065	1.2156	46.419	1.5981	-1.4237	-.02086
Stddev	.04918	.11568	.57384	1.7683	11.589	.8164	6.8030	.07223
%RSD	68.059	32.254	72.577	145.47	24.966	51.083	477.85	346.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6336	289.30	.35509	-.60686	1.966	2.4665	.79257	2.4375
Stddev	.2094	31.38	.70141	1.5169	1.505	1.7832	.18749	.1662
%RSD	7.9492	10.847	197.53	249.96	76.52	72.297	23.656	6.8191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 11:19:20 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.15387	-1.6800	-.39115	-2.4869	.04104
Stddev	1.4928	.7425	.08343	7.7789	.90917
%RSD	970.19	44.199	21.329	312.80	2215.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8269.2	4873.9	62763.	9246.0
Stddev	4.8	6.8	252.	52.1
%RSD	.05762	.14024	.40115	.56325

Sample Name: SD 240-81940-b-1-c@5 Acquired: 7/12/2017 11:23:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.40664	9286.4	3.1772	139.25	39.059	.28146	197560.
Stddev	.19665	39.4	1.7794	1.14	.203	.07542	884.
%RSD	48.360	.42438	56.005	.81537	.52069	26.798	.44764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.200	1.4531	11.030	2.4699	286.11	2890.3	132.27
Stddev	.132	.2717	.137	.2766	2.90	20.6	1.73
%RSD	11.03	18.699	1.2397	11.199	1.0122	.71115	1.3066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3025.2	174.34	2.5837	285080.	6.0855	7.0878	2.312
Stddev	34.3	1.00	.2479	346.	.4526	.7169	.724
%RSD	1.1347	.57597	9.5933	.12150	7.4378	10.114	31.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-81940-b-1-c@5 Acquired: 7/12/2017 11:23:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1089	.48912	3.4150	-1.9790	1.1240	57.950	2674.0
Stddev	2.3534	.79691	.0861	1.1803	1.7676	.272	14.8
%RSD	212.24	162.93	2.5198	59.640	157.26	.46972	.55158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	485.48
Stddev	6.20
%RSD	1.2779
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6817.2	4519.9	58115.	9100.5
Stddev	13.4	8.8	156.	30.5
%RSD	.19600	.19397	.26864	.33523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.190%	91.582%	91.387%	98.319%
Range				

Sample Name: PDS 240-81940-b-1-c Acquired: 7/12/2017 11:28:12 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50.644	45320.	2188.0	1611.7	2064.8	45.247
Stddev	.317	155.	17.0	8.1	5.4	.470
%RSD	.62636	.34253	.77812	.49980	.26111	1.0387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 916230.	57.16	534.12	225.14	250.68	2206.6
Stddev	4516.	.26	4.22	.30	1.32	15.1
%RSD	.49285	.4477	.78972	.13154	.52752	.68582
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64750.	1672.8	58530.	1253.5	925.07	F 1195300.
Stddev	237.	5.7	189.	2.2	10.75	2195.
%RSD	.36610	.34140	.32270	.17793	1.1618	.18364
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: PDS 240-81940-b-1-c Acquired: 7/12/2017 11:28:12 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	544.74	444.81	508.4	2225.0	2143.4	944.47
Stddev	4.35	1.92	5.4	12.3	20.0	3.39
%RSD	.79810	.43203	1.068	.55133	.93155	.35862
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1844.9	472.66	834.82	13262.	3055.8
Stddev	.6	3.44	5.55	30.	21.1
%RSD	.03146	.72700	.66500	.22263	.68969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5658.7	4242.3	55261.	9285.6
Stddev	11.9	11.0	114.	18.0
%RSD	.21028	.25851	.20605	.19383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.392%	85.957%	86.900%	100.32%
Range				

Sample Name: 240-81940-b-1-d ms@5 Acquired: 7/12/2017 11:32:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 205.04	9804.9	1084.0	344.01	1159.4	9.8900	210490.
Stddev	.77	18.1	.4	1.36	2.9	.0602	708.
%RSD	.37714	.18440	.04096	.39525	.25201	.60921	.33641
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	208.2	104.44	997.07	52.340	498.38	13222.	333.92
Stddev	1.2	.81	5.80	.605	6.92	10.	.48
%RSD	.5536	.77581	.58171	1.1566	1.3876	.07836	.14300
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13194.	280.90	198.15	298490.	109.56	738.25	105.3
Stddev	189.	2.85	1.96	1279.	.22	2.10	1.8
%RSD	1.4339	1.0136	.99025	.42853	.20434	.28430	1.737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81940-b-1-d ms@5 Acquired: 7/12/2017 11:32:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	219.67	434.20	203.40	395.68	101.76	169.27	2944.1
Stddev	1.28	6.26	.28	5.35	.98	2.71	55.4
%RSD	.58088	1.4424	.13642	1.3520	.96066	1.5984	1.8811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	673.94
Stddev	3.84
%RSD	.57038
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6771.6	4513.5	57973.	9178.3
Stddev	13.3	12.0	230.	29.7
%RSD	.19626	.26491	.39678	.32376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.645%	91.453%	91.164%	99.160%
Range				

Sample Name: 240-81940-b-1-emsd@5 Acquired: 7/12/2017 11:36:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 208.07	9789.4	1109.8	347.76	1145.4	10.320	210790.
Stddev	1.52	41.0	7.4	1.37	.7	.173	203.
%RSD	.73016	.41857	.67121	.39422	.06193	1.6772	.09645
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	213.4	106.83	1010.5	53.471	502.03	13404.	335.70
Stddev	1.0	.50	4.7	.298	5.33	55.	.44
%RSD	.4715	.47167	.46868	.55722	1.0623	.41078	.13221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13445.	280.08	198.38	305560.	112.03	752.72	108.1
Stddev	94.	1.30	1.54	1561.	.39	6.00	2.3
%RSD	.69623	.46370	.77646	.51071	.35112	.79688	2.150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81940-b-1-emsd@5 Acquired: 7/12/2017 11:36:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	221.28	437.94	202.49	405.15	102.57	172.38	2946.1
Stddev	2.52	3.16	.71	1.77	2.68	1.32	38.3
%RSD	1.1394	.72231	.35282	.43707	2.6146	.76762	1.2997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	677.22
Stddev	9.68
%RSD	1.4299
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6734.5	4490.9	57790.	9072.7
Stddev	3.5	3.5	227.	22.9
%RSD	.05184	.07786	.39268	.25277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.204%	90.994%	90.877%	98.018%
Range				

Sample Name: 460-136581-a-8-e@10 Acquired: 7/12/2017 11:40:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.33166	36.835	23.187	162.04	70.897	.01173	1364.3	.0249
Stddev	.38282	11.573	.640	2.51	.474	.25698	7.4	.1072
%RSD	115.42	31.419	2.7601	1.5506	.66869	2190.3	.53947	431.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.66481	.63193	1.2381	512.81	8290.1	3.5933	323.51	109.75
Stddev	.21882	.17867	.5686	4.70	89.8	1.9061	37.46	.94
%RSD	32.914	28.274	45.921	.91655	1.0832	53.046	11.578	.85254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.32006	97053.	1.6397	.40626	1.369	39.527	8.7128	.35777
Stddev	.12234	855.	.5625	.80984	2.034	3.106	.9030	.27242
%RSD	38.225	.88096	34.306	199.34	148.6	7.8593	10.364	76.143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 460-136581-a-8-e@10 Acquired: 7/12/2017 11:40:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-24.445	.37282	114.70	629.06	5.0335
Stddev	.899	1.3271	2.08	5.36	.7953
%RSD	3.6771	355.95	1.8145	.85280	15.800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7848.3	4640.5	61213.	9611.8
Stddev	8.0	3.3	225.	85.1
%RSD	.10241	.07067	.36806	.88548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.469%	94.026%	96.259%	103.84%
Range				

Sample Name: 240-81944-a-1-c Acquired: 7/12/2017 11:45:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.7475	1208.8	8.4291	917.41	858.97	.15474
Stddev	.1064	13.4	.3232	13.83	2.35	.01140
%RSD	1.3730	1.1088	3.8349	1.5078	.27305	7.3698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	205870.	4.002	13.472	10.860	321.56	62673.
Stddev	523.	.132	.343	.127	1.40	198.
%RSD	.25408	3.294	2.5489	1.1720	.43512	.31526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3726.2	38.239	38987.	6562.1	3.7299	F 1078000.
Stddev	23.6	2.619	145.	12.8	.1250	19611.
%RSD	.63239	6.8492	.37102	.19482	3.3502	1.8192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81944-a-1-c Acquired: 7/12/2017 11:45:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10073.	F 19230.	-8.366	5.3237	31.520	5.6077
Stddev	273.	369.	1.359	3.3202	1.125	.3675
%RSD	2.7146	1.9177	16.24	62.366	3.5693	6.5526
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		15000.				
Low Limit		-500000.				

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-10.825	-2.1016	F 19731.	7017.6	274.89
Stddev	2.583	1.0649	500.	20.0	1.46
%RSD	23.859	50.670	2.5356	.28518	.53162
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6027.0	4623.0	59013.	9910.6
Stddev	27.3	6.1	124.	27.6
%RSD	.45307	.13258	.21092	.27810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	71.778%	93.672%	92.799%	107.07%
Range				

Sample Name: lb 240-286573/1-b Acquired: 7/12/2017 11:49:35 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03720	30.735	F 5.4550	23.834	1.9466	.05634
Stddev	.47594	8.303	2.9921	.421	.1809	.08418
%RSD	1279.4	27.015	54.850	1.7650	9.2917	149.42
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			5.0000			
Low Limit			-1000.0			

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-10.602	.1508	.15664	.65848	.14751	8.2882
Stddev	2.743	.1555	.31103	.06655	.20976	1.5624
%RSD	25.875	103.2	198.57	10.107	142.20	18.851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	462.91	20.618	15.519	.05605	-.15469	F 1185400.
Stddev	11.38	.784	20.588	.07300	.40107	20992.
%RSD	2.4585	3.8042	132.66	130.24	259.28	1.7709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						1000.0
Low Limit						-1000.0

Sample Name: lb 240-286573/1-b Acquired: 7/12/2017 11:49:35 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.7422	2.0812	.4133	F 8.8559	3.0256	.28772
Stddev	.2818	1.3382	2.538	.6866	.9326	.10010
%RSD	7.5310	64.297	614.0	7.7526	30.824	34.791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				5.0000		
Low Limit				-1000.0		

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-8.7515	-4.1417	4.2215	209.22	-.04948
Stddev	1.0308	2.3032	.2445	8.86	4.2488
%RSD	11.779	55.612	5.7924	4.2359	8586.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6273.3	4227.1	53257.	8951.2
Stddev	4.0	5.7	120.	41.8
%RSD	.06441	.13471	.22625	.46730

Sample Name: mb 240-286697/2-a Acquired: 7/12/2017 11:54:08 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06494	35.085	.41102	7.6054	2.0306	.09791	432.08	.0371
Stddev	.56691	7.826	.87280	.4087	.1147	.15127	5.85	.0241
%RSD	873.00	22.306	212.35	5.3734	5.6468	154.50	1.3545	65.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09637	.58155	4.4086	25.635	79.313	4.7134	144.71	.59510
Stddev	.40128	.14624	.5182	.534	37.845	.6578	22.91	.28113
%RSD	416.38	25.147	11.754	2.0839	47.716	13.956	15.832	47.241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02820	824.19	.95478	.58993	1.712	1.0001	.80974	.04385
Stddev	.12777	28.87	.33971	1.0555	1.964	2.8595	.54034	.25004
%RSD	453.11	3.5028	35.580	178.92	114.7	285.91	66.730	570.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286697/2-a Acquired: 7/12/2017 11:54:08 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.87402	-3.0207	2.5731	103.32	3.7101
Stddev	1.4149	2.3193	.1238	3.02	.9560
%RSD	161.89	76.779	4.8102	2.9242	25.768
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8161.8	4823.8	62859.	9243.1
Stddev	5.9	6.3	194.	38.6
%RSD	.07211	.13003	.30809	.41790

Sample Name: lcs 240-286697/3-a Acquired: 7/12/2017 11:58:31 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56.599	2082.9	2283.4	1050.8	2000.6	49.580
Stddev	.159	17.9	2.4	3.1	11.7	.564
%RSD	.28124	.85963	.10722	.29280	.58628	1.1367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50904.	54.10	532.40	208.06	269.31	1054.5
Stddev	200.	.20	2.01	.85	1.48	1.1
%RSD	.39191	.3680	.37802	.40695	.54925	.10185
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54022.	1067.5	50660.	522.23	982.57	1216400.
Stddev	354.	6.5	292.	4.41	3.42	12758.
%RSD	.65490	.60638	.57633	.84368	.34831	1.0488
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None
Value						
Range						

Sample Name: lcs 240-286697/3-a Acquired: 7/12/2017 11:58:31 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	541.59	467.52	533.2	2296.3	2145.9	1019.6
Stddev	2.28	2.41	4.0	2.2	2.7	7.1
%RSD	.42118	.51597	.7452	.09570	.12574	.69374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1902.2	510.65	578.03	F 1437.0	1001.0
Stddev	5.7	4.41	3.86	29.6	4.6
%RSD	.29714	.86430	.66704	2.0571	.46360
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value				1000.0	
Range				20.500%	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6068.4	4163.8	52673.	8908.0
Stddev	10.5	8.6	276.	52.5
%RSD	.17269	.20745	.52437	.58925

Sample Name: 240-81855-c-1-g Acquired: 7/12/2017 12:02:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05955	47.236	5.4758	168.14	55.709	.31341
Stddev	.07541	34.382	1.1750	3.22	.204	.17496
%RSD	126.63	72.787	21.458	1.9132	.36690	55.823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 740590.	.1927	.47563	22.913	-1.7041	.41898
Stddev	5457.	.1517	.13649	.124	.3845	1.0277
%RSD	.73684	78.74	28.696	.54253	22.564	245.29
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18497.	90.363	7070.7	-.42288	11.676	F 1264900.
Stddev	158.	4.923	48.8	.05491	.403	6571.
%RSD	.85472	5.4477	.69017	12.985	3.4548	.51949
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-1-g Acquired: 7/12/2017 12:02:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.0186	7.9036	7.331	5.2092	1.9073	-.44058
Stddev	.4376	.6859	.438	1.3172	1.2551	.12774
%RSD	6.2355	8.6788	5.967	25.285	65.803	28.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.6026	12.573	.90607	24408.	2445.1
Stddev	1.9617	2.538	.24701	1176.	15.4
%RSD	42.622	20.188	27.261	4.8182	.63089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5726.8	3987.5	51269.	8648.1
Stddev	17.5	6.6	57.	43.4
%RSD	.30600	.16644	.11108	.50183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.203%	80.794%	80.622%	93.431%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 12:07:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1016.7	25465.	519.75	5152.6	2003.8	1970.3	50226.	510.9
Stddev	4.1	208.	2.30	11.0	9.3	9.9	219.	1.1
%RSD	.40543	.81711	.44224	.21315	.46302	.50093	.43517	.2203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2053.8	2024.8	2016.9	25522.	50219.	5038.4	50691.	2067.4
Stddev	7.7	8.8	7.8	146.	259.	35.5	253.	8.6
%RSD	.37663	.43675	.38594	.57065	.51537	.70463	.49963	.41728
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1974.8	50104.	2056.5	497.99	516.4	520.47	5208.2	5068.6
Stddev	9.6	323.	5.9	1.38	3.6	1.19	20.3	35.6
%RSD	.48416	.64560	.28786	.27667	.6901	.22841	.39006	.70149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 12:07:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1030.8	2004.9	2083.7	5222.9	4939.5
Stddev	7.8	11.1	6.7	64.4	30.6
%RSD	.75469	.55365	.31937	1.2331	.61889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7093.3	4593.2	58682.	9006.3
Stddev	3.0	5.2	116.	46.7
%RSD	.04254	.11223	.19706	.51813

Sample Name: CCB Acquired: 7/12/2017 12:11:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.19847	6.3431	1.0822	7.7716	.00689	.20614	.73715	.0126
Stddev	.07861	5.9023	3.1539	1.0473	.07550	.27386	2.6076	.0787
%RSD	39.610	93.052	291.44	13.476	1095.3	132.85	353.75	625.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05601	.07035	.94222	2.0095	26.004	1.3811	-17.265	.03910
Stddev	.20118	.16935	.30010	2.5907	30.315	1.9658	17.957	.16360
%RSD	359.21	240.73	31.850	128.92	116.58	142.34	104.01	418.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7456	437.60	-.09998	-.34576	2.537	.87444	.88715	2.5975
Stddev	.1288	10.08	.74448	1.1322	1.123	1.6817	.18985	.3443
%RSD	4.6929	2.3039	744.59	327.46	44.27	192.32	21.400	13.254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 12:11:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.40076	-.85195	-.32403	20.047	-.14613
Stddev	1.0781	3.3655	.07265	3.298	4.4410
%RSD	269.01	395.03	22.421	16.449	3039.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8219.2	4848.9	62882.	9195.9
Stddev	39.5	21.3	33.	12.4
%RSD	.48043	.44024	.05215	.13512

Sample Name: SD 240-81855-c-1-g@5 Acquired: 7/12/2017 12:15:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.27856	33.484	1.7295	37.173	10.812	.17611	151150.
Stddev	.16513	6.190	1.3356	.942	.124	.08004	321.
%RSD	59.277	18.486	77.224	2.5344	1.1504	45.446	.21213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0167	.35301	5.5838	-.53478	-.36918	3436.9	13.476
Stddev	.0982	.09076	.1536	.80448	2.0477	17.6	2.058
%RSD	588.2	25.710	2.7507	150.43	554.66	.51266	15.268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1414.3	-.46268	2.4526	297720.	2.4440	2.3871	1.713
Stddev	18.2	.06273	.2052	2562.	.2244	.2103	2.776
%RSD	1.2851	13.558	8.3649	.86045	9.1822	8.8112	162.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-81855-c-1-g@5 Acquired: 7/12/2017 12:15:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.78793	.14530	.71396	-1.4915	.99424	-1.2044	4981.4
Stddev	2.3980	.11961	.20259	1.1210	1.4163	.1985	216.9
%RSD	304.35	82.323	28.375	75.160	142.45	16.482	4.3542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	493.06
Stddev	6.30
%RSD	1.2772
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6849.4	4486.8	56994.	9004.1
Stddev	11.2	7.9	124.	12.3
%RSD	.16281	.17548	.21735	.13668
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.573%	90.912%	89.624%	97.277%
Range				

Sample Name: PDS 240-81855-c-1-g Acquired: 7/12/2017 12:20:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	55.905	2079.7	2271.2	1207.8	2041.2	48.079
Stddev	.486	19.2	23.4	10.6	6.6	.183
%RSD	.86952	.92127	1.0318	.88170	.32523	.38130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 769750.	54.65	529.58	218.94	260.35	995.75
Stddev	12199.	.56	4.62	1.82	1.59	2.47
%RSD	1.5848	1.026	.87327	.82939	.61080	.24792
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	71441.	1159.6	55209.	497.72	983.65	F 1291100.
Stddev	303.	4.4	420.	4.34	10.47	10782.
%RSD	.42378	.38148	.76081	.87217	1.0643	.83510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: PDS 240-81855-c-1-g Acquired: 7/12/2017 12:20:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	530.60	459.51	529.5	2251.8	2148.3	1011.5
Stddev	4.09	5.37	9.9	23.1	20.1	8.7
%RSD	.77105	1.1677	1.863	1.0273	.93672	.86381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1865.7	506.63	553.13	25717.	3293.0
Stddev	8.8	1.86	3.23	1141.	14.1
%RSD	.47250	.36711	.58349	4.4362	.42779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5670.6	3966.1	50803.	8646.7
Stddev	15.3	11.5	289.	20.0
%RSD	.26951	.28980	.56793	.23166
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.534%	80.362%	79.890%	93.416%
Range				

Sample Name: 240-81855-c-1-h ms@5 Acquired: 7/12/2017 12:24:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 207.32	410.32	1072.4	241.41	9732.7	9.8745	160830.
Stddev	1.33	9.05	6.8	2.01	72.4	.0947	204.
%RSD	.63942	2.2057	.62987	.83125	.74351	.95870	.12693
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	210.5	103.42	1005.4	50.286	202.59	13719.	220.60
Stddev	1.6	.76	4.2	.375	1.38	79.	1.19
%RSD	.7738	.73673	.42122	.74638	.68189	.57695	.54168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11512.	101.84	199.68	302970.	105.39	980.31	105.4
Stddev	9.	.54	1.39	965.	.40	7.44	1.1
%RSD	.07656	.53149	.69620	.31836	.38386	.75880	1.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81855-c-1-h ms@5 Acquired: 7/12/2017 12:24:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	221.35	425.05	200.14	392.26	101.93	106.70	6741.9
Stddev	1.44	.59	1.49	1.72	3.60	.29	18.2
%RSD	.65113	.13896	.74468	.43749	3.5362	.27023	.26990
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	686.14
Stddev	5.40
%RSD	.78634
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6788.0	4449.7	56875.	8996.4
Stddev	6.6	4.9	204.	21.1
%RSD	.09796	.11118	.35883	.23462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.841%	90.160%	89.437%	97.193%
Range				

Sample Name: 240-81855-c-1-imsd@5 Acquired: 7/12/2017 12:28:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 208.07	444.20	1079.3	243.26	9836.0	9.9031	164400.
Stddev	.93	12.00	10.1	3.27	51.4	.1298	344.
%RSD	.44843	2.7025	.93543	1.3454	.52277	1.3108	.20899
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	100.00						
Low Limit	-500000.						

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	211.5	103.81	1006.2	49.627	204.74	13717.	219.95
Stddev	2.9	1.06	3.3	.100	3.85	26.	1.65
%RSD	1.357	1.0184	.33022	.20146	1.8788	.19070	.75200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11527.	102.45	198.56	313640.	106.36	987.97	105.1
Stddev	105.	.44	3.12	1131.	1.59	14.44	1.5
%RSD	.91030	.42712	1.5696	.36057	1.4951	1.4618	1.450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81855-c-1-imsd@5 Acquired: 7/12/2017 12:28:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	218.03	427.22	198.67	398.87	103.38	109.22	5996.8
Stddev	3.04	6.31	.44	6.96	2.02	1.37	111.3
%RSD	1.3952	1.4778	.22201	1.7445	1.9504	1.2526	1.8567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	698.39
Stddev	4.29
%RSD	.61398
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6756.0	4428.1	56790.	8957.3
Stddev	10.5	8.9	86.	45.0
%RSD	.15481	.20058	.15072	.50229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.461%	89.722%	89.303%	96.772%
Range				

Sample Name: 240-81855-c-2-g Acquired: 7/12/2017 12:33:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.54057	246.65	8.1822	141.77	208.06	.50752
Stddev	.22288	39.18	1.7064	3.04	.11	.14189
%RSD	41.231	15.885	20.855	2.1474	.05229	27.958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 776010.	-.0757	.07542	2.5896	-3.5540	1.7697
Stddev	6039.	.1398	.17769	.3718	.6928	1.3833
%RSD	.77817	184.7	235.60	14.356	19.494	78.166
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	43164.	72.140	381.14	-.50473	46.302	F 1203800.
Stddev	50.	1.297	17.36	.03183	1.207	8003.
%RSD	.11499	1.7978	4.5554	6.3060	2.6073	.66478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-2-g Acquired: 7/12/2017 12:33:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.0882	10.632	6.207	7.9719	2.4714	-.81699
Stddev	.1491	1.583	.629	1.6883	.9819	.11210
%RSD	2.4496	14.890	10.14	21.179	39.731	13.722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.9004	13.446	.69506	15805.	1219.0
Stddev	1.5463	3.938	.16601	329.	4.9
%RSD	31.554	29.292	23.885	2.0839	.39912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5732.2	3975.9	51326.	8650.1
Stddev	20.6	9.5	110.	22.9
%RSD	.35946	.24007	.21452	.26420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.268%	80.560%	80.712%	93.452%
Range				

Sample Name: 240-81855-c-3-g Acquired: 7/12/2017 12:37:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.15447	756.57	6.7311	40.400	513.30	.44034
Stddev	.08197	46.96	4.7415	.424	2.27	.12797
%RSD	53.064	6.2067	70.441	1.0505	.44202	29.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 750410.	.0626	.75462	4.2929	-2.7144	1.9830
Stddev	7024.	.0461	.39126	.3152	.3287	2.0366
%RSD	.93595	73.58	51.849	7.3434	12.111	102.70
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24765.	75.592	158.27	1.0672	14.713	F 1112700.
Stddev	192.	2.151	7.91	.0400	.266	6608.
%RSD	.77480	2.8456	4.9947	3.7506	1.8078	.59393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-3-g Acquired: 7/12/2017 12:37:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.8940	8.4307	5.907	3.2536	2.2183	-2.6599
Stddev	.1601	1.6404	1.149	1.9368	.8147	.2115
%RSD	2.7172	19.457	19.45	59.528	36.727	7.9517
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.0870	.96376	.22317	10044.	21071.
Stddev	1.4718	.99447	.17419	34.	80.
%RSD	28.933	103.19	78.052	.34193	.38008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5790.9	4019.9	51469.	8725.1
Stddev	8.2	11.3	209.	37.9
%RSD	.14152	.28149	.40513	.43436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.966%	81.452%	80.936%	94.262%
Range				

Sample Name: 240-81855-c-4-g Acquired: 7/12/2017 12:42:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11404	751.49	8.5561	58.165	387.61	.31584
Stddev	.44131	30.19	1.2965	.695	2.62	.24215
%RSD	386.99	4.0173	15.153	1.1941	.67498	76.669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 836500.	.1535	.26346	2.3124	-2.5984	10.561
Stddev	2453.	.1333	.20907	.3655	.6777	1.215
%RSD	.29320	86.86	79.355	15.806	26.081	11.501
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10024.	74.045	131.87	-.46178	47.816	F 1146200.
Stddev	31.	2.548	19.89	.05981	.496	10566.
%RSD	.31385	3.4412	15.086	12.952	1.0379	.92187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-4-g Acquired: 7/12/2017 12:42:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.9886	9.1509	3.445	8.5494	1.7732	-1.2204
Stddev	.8089	.7231	3.912	2.7387	.6844	.2354
%RSD	11.575	7.9021	113.5	32.033	38.597	19.291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.3177	2.1507	3.2933	8470.6	1377.0
Stddev	2.5319	.9854	.2023	36.5	5.1
%RSD	40.076	45.817	6.1423	.43121	.37269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5746.0	3975.6	51155.	8681.8
Stddev	24.0	16.9	83.	24.1
%RSD	.41743	.42621	.16176	.27741
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.432%	80.554%	80.443%	93.796%
Range				

Sample Name: 240-81855-c-5-i Acquired: 7/12/2017 12:47:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36760	205.00	7.2911	148.59	249.16	.36291
Stddev	.04436	13.06	3.2431	3.00	.95	.11585
%RSD	12.067	6.3684	44.480	2.0172	.38160	31.921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 790590.	.2075	.26012	2.8435	-3.5467	1.0685
Stddev	5587.	.1278	.26992	.2829	.4164	.6144
%RSD	.70665	61.58	103.76	9.9506	11.740	57.502
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	35228.	77.648	411.81	-.23143	40.660	F 1190600.
Stddev	188.	2.092	35.78	.06493	1.610	12666.
%RSD	.53446	2.6937	8.6891	28.058	3.9603	1.0638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-5-i Acquired: 7/12/2017 12:47:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.3308	8.3088	5.146	6.7044	2.1078	-1.4947
Stddev	.7233	.9962	3.788	3.5436	.8397	.3273
%RSD	11.425	11.990	73.61	52.855	39.837	21.895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-5.9704	16.682	2.2831	16980.	1279.3
Stddev	1.3714	1.672	.1906	396.	15.0
%RSD	22.970	10.024	8.3491	2.3330	1.1726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5762.3	4005.0	51360.	8599.0
Stddev	.9	16.1	69.	37.9
%RSD	.01483	.40308	.13448	.44037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.626%	81.149%	80.765%	92.900%
Range				

Sample Name: 240-81855-c-6-f Acquired: 7/12/2017 12:51:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.32433	176.87	8.7527	160.71	228.81	.33932
Stddev	.18013	14.57	.8995	2.86	.69	.03971
%RSD	55.538	8.2402	10.277	1.7780	.29944	11.704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 784700.	-.0263	-.00574	1.9610	-3.6354	1.3549
Stddev	2233.	.1327	.13154	.3959	.1271	.6476
%RSD	.28457	504.9	2291.7	20.187	3.4950	47.800
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38566.	79.309	628.50	-.41553	42.474	F 1197400.
Stddev	231.	1.431	3.49	.00905	1.126	24598.
%RSD	.59973	1.8042	.55597	2.1787	2.6515	2.0544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81855-c-6-f Acquired: 7/12/2017 12:51:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.5837	8.6461	5.526	7.8144	2.7845	-1.2735
Stddev	.3311	2.0964	.480	4.8603	.7986	.2057
%RSD	5.9304	24.247	8.685	62.197	28.679	16.155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.8136	16.403	.74227	20351.	1791.3
Stddev	.2161	1.280	.22285	42.	13.9
%RSD	4.4895	7.8052	30.023	.20780	.77442
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5720.1	3966.8	50746.	8595.4
Stddev	13.6	5.1	283.	23.4
%RSD	.23743	.12731	.55786	.27260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.123%	80.376%	79.799%	92.861%
Range				

Sample Name: 240-81944-a-1-c@2 Acquired: 7/12/2017 12:56:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.0528	631.23	4.7342	484.57	455.90	.16754
Stddev	.1710	32.08	1.6053	9.10	1.24	.17246
%RSD	4.2190	5.0821	33.909	1.8775	.27283	102.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	110950.	2.002	6.7376	6.0252	167.98	33658.
Stddev	261.	.141	.0115	.3359	.30	68.
%RSD	.23504	7.034	.17117	5.5742	.17781	.20278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1978.9	18.533	21011.	3533.5	1.7971	F 612530.
Stddev	18.6	2.532	75.	6.9	.1262	4856.
%RSD	.94052	13.661	.35502	.19652	7.0230	.79284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81944-a-1-c@2 Acquired: 7/12/2017 12:56:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5078.5	10450.	-2.758	1.4465	16.524	3.1230
Stddev	108.8	197.	2.859	2.2302	.866	.1678
%RSD	2.1426	1.8864	103.7	154.17	5.2422	5.3737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.1125	.36017	W 9993.5	3847.3	151.61
Stddev	1.1333	2.3261	214.4	43.9	2.73
%RSD	27.557	645.84	2.1454	1.1416	1.8011
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit			9000.0		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6486.9	4598.1	58743.	9433.0
Stddev	7.7	5.1	36.	43.1
%RSD	.11933	.11031	.06084	.45703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.255%	93.167%	92.375%	101.91%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 13:00:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.7	25694.	520.53	5133.2	2001.4	1924.3	50144.	509.2
Stddev	4.7	117.	3.71	15.5	6.9	6.3	263.	1.9
%RSD	.46662	.45710	.71193	.30205	.34513	.32663	.52445	.3720
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2051.8	2041.1	2021.6	25581.	50299.	5074.4	50707.	2092.6
Stddev	7.0	14.4	11.7	119.	238.	24.3	250.	17.8
%RSD	.34175	.70539	.57640	.46458	.47346	.47934	.49348	.85091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1979.2	49745.	2054.1	501.33	514.6	519.83	5198.9	5074.3
Stddev	11.1	227.	7.5	.21	3.3	4.22	27.2	47.4
%RSD	.56201	.45654	.36593	.04132	.6364	.81195	.52282	.93412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 13:00:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1022.4	2000.3	2081.5	5340.6	4943.1
Stddev	8.8	2.1	8.7	101.1	27.6
%RSD	.86419	.10262	.41842	1.8933	.55891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7109.4	4600.1	58623.	8933.0
Stddev	4.2	2.6	252.	29.7
%RSD	.05884	.05690	.43024	.33217

Sample Name: CCB Acquired: 7/12/2017 13:04:53 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35358	10.085	.01872	7.6724	-.10961	.31586	-3.0239	-.0573
Stddev	.35938	18.794	4.0924	.7894	.14031	.05090	.7729	.0897
%RSD	101.64	186.36	21859.	10.288	128.02	16.116	25.559	156.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04546	.16972	1.4016	3.2369	4.5875	-.22463	10.872	.24041
Stddev	.12155	.46564	.3589	3.1676	22.693	1.0496	11.073	.33555
%RSD	267.40	274.35	25.603	97.858	494.67	467.28	101.85	139.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6849	441.08	.58054	.81746	.5307	-.16535	.87784	2.5188
Stddev	.3416	10.86	.13019	1.8669	.4838	.62940	.28324	.2600
%RSD	12.722	2.4624	22.426	228.38	91.17	380.65	32.266	10.322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 13:04:53 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.38629	-1.3125	-.27313	25.214	.04267
Stddev	.50678	2.6063	.12794	7.114	1.0945
%RSD	131.19	198.57	46.842	28.213	2565.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8195.6	4834.2	63011.	9172.3
Stddev	24.2	13.8	711.	29.7
%RSD	.29546	.28605	1.1282	.32365

Sample Name: CCVL-3085197 Acquired: 7/12/2017 13:09:18 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.392	231.81	15.587	107.79	197.02	4.8280	5005.8	5.230
Stddev	.164	12.42	1.740	.56	.83	.1119	35.8	.099
%RSD	1.5769	5.3585	11.164	.51915	.41966	2.3172	.71551	1.893
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.8295	10.522	20.673	208.13	4989.0	49.083	5124.7	15.629
Stddev	.0937	.257	.032	3.75	60.0	2.166	59.0	.049
%RSD	.95332	2.4425	.15411	1.8035	1.2025	4.4129	1.1507	.31289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	42.101	5141.7	40.827	10.983	20.20	20.696	100.33	50.956
Stddev	.539	29.5	.364	.756	1.17	2.587	1.72	.080
%RSD	1.2806	.57411	.89065	6.8836	5.776	12.500	1.7115	.15714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-3085197 Acquired: 7/12/2017 13:09:18 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	19.211	7.5312	48.767	526.02	44.329
Stddev	.730	2.3408	.457	2.92	5.252
%RSD	3.8016	31.082	.93762	.55583	11.847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7971.5	4781.6	61739.	9118.9
Stddev	12.9	9.1	126.	29.0
%RSD	.16139	.18946	.20341	.31764

Sample Name: 240-81858-A-2-C Acquired: 7/12/2017 13:13:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12752	17.648	9.6664	201.87	868.16	.05649
Stddev	.34382	14.289	.5566	1.25	2.08	.06103
%RSD	269.62	80.965	5.7584	.61703	.23925	108.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1596.1	.0853	.19907	2.8989	109.11	41.519
Stddev	6.3	.0411	.17044	.4319	.76	1.800
%RSD	.39486	48.22	85.618	14.898	.69764	4.3351
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1134.5	81.659	3482.7	1.4783	.56019	F 1075200.
Stddev	40.4	2.295	58.9	.0415	.21137	8407.
%RSD	3.5637	2.8108	1.6915	2.8060	37.732	.78186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81858-A-2-C Acquired: 7/12/2017 13:13:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8043	.23259	.5271	11.633	7.6567	1.1858
Stddev	.5515	.36155	1.761	.955	.8350	.1771
%RSD	19.668	155.45	334.0	8.2071	10.906	14.933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-11.572	-.71923	35.166	4084.1	12.777
Stddev	1.268	1.4468	.494	32.0	4.405
%RSD	10.960	201.16	1.4036	.78445	34.476
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6318.2	4245.9	53499.	8941.2
Stddev	11.8	4.0	361.	17.3
%RSD	.18620	.09364	.67468	.19315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.246%	86.030%	84.129%	96.597%
Range				

Sample Name: 240-81923-a-1-c Acquired: 7/12/2017 13:17:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.09469	690.82	22.660	674.38	521.01	.37283
Stddev	.08513	14.34	1.507	5.90	3.87	.08286
%RSD	89.909	2.0759	6.6507	.87494	.74301	22.226
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	177000.	1.075	2.4785	42.904	.25174	1648.8
Stddev	1095.	.021	.0934	.185	1.1198	23.4
%RSD	.61850	1.952	3.7679	.43165	444.80	1.4209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21314.	32.587	5717.6	246.33	19.680	F 1185100.
Stddev	117.	2.890	42.9	.25	.233	9500.
%RSD	.55023	8.8673	.74988	.10147	1.1841	.80162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81923-a-1-c Acquired: 7/12/2017 13:17:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.8678	3.8638	20.92	14.915	4.1540	2.4127
Stddev	.4723	1.9311	.85	1.701	.7567	.3065
%RSD	6.8764	49.978	4.085	11.405	18.217	12.703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-9.3222	-1.1793	F 48445.	1894.6	513.00
Stddev	1.1367	1.8911	445.	27.3	1.62
%RSD	12.194	160.35	.91781	1.4400	.31641
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6115.8	4198.8	53367.	9060.2
Stddev	10.1	9.2	53.	56.2
%RSD	.16450	.21846	.09932	.62013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.836%	85.077%	83.921%	97.883%
Range				

Sample Name: 240-81923-a-2-c Acquired: 7/12/2017 13:22:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.170	2150.2	25.995	928.70	630.09	1.2722
Stddev	.357	3.8	1.369	12.38	3.15	.2344
%RSD	2.9312	.17517	5.2680	1.3330	.49958	18.421
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	87587.	69.31	36.781	261.25	1229.1	3298.9
Stddev	562.	1.31	.470	3.00	10.6	9.2
%RSD	.64128	1.892	1.2785	1.1494	.85955	.28000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8143.7	41.387	9255.5	339.89	50.782	F 1131600.
Stddev	81.3	2.365	75.3	4.50	1.225	2363.
%RSD	.99817	5.7134	.81364	1.3237	2.4126	.20884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81923-a-2-c Acquired: 7/12/2017 13:22:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	425.80	230.98	50.27	17.178	11.961	24.766
Stddev	8.77	5.43	.94	.812	.424	.746
%RSD	2.0601	2.3512	1.870	4.7271	3.5444	3.0138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-10.487	2.3025	F 43630.	2628.2	1193.0
Stddev	.232	5.3332	744.	30.3	12.4
%RSD	2.2101	231.63	1.7061	1.1547	1.0354
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6128.3	4220.0	53515.	8991.0
Stddev	19.1	13.7	455.	71.6
%RSD	.31165	.32445	.84968	.79641
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.985%	85.506%	84.154%	97.136%
Range				

Sample Name: 240-81923-a-3-c Acquired: 7/12/2017 13:26:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09764	1698.8	14.210	2009.7	669.20	.72296
Stddev	.51357	30.7	.541	40.6	2.93	.03799
%RSD	525.96	1.8056	3.8060	2.0198	.43727	5.2543
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1068100.	1.991	3.5917	26.541	40.465	582.09
Stddev	12535.	.287	.2313	.114	1.286	2.69
%RSD	1.1735	14.40	6.4407	.42929	3.1786	.46142
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10664.	80.502	19023.	514.53	5.8030	F 1185200.
Stddev	39.	1.136	154.	2.00	.2915	19029.
%RSD	.36254	1.4115	.81035	.38951	5.0235	1.6056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81923-a-3-c Acquired: 7/12/2017 13:26:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.126	34.814	7.741	10.890	3.7441	16.913
Stddev	.545	.346	3.750	1.477	1.3179	.790
%RSD	2.8487	.99256	48.44	13.564	35.198	4.6708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-9.1675	7.3747	1309.3	4604.8	4343.5
Stddev	.5172	.7854	29.5	72.2	49.0
%RSD	5.6420	10.650	2.2525	1.5679	1.1285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.8	3947.5	51495.	8701.4
Stddev	16.1	10.4	60.	27.7
%RSD	.28384	.26356	.11593	.31838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.607%	79.984%	80.977%	94.007%
Range				

Sample Name: 240-81923-a-4-b@10 Acquired: 7/12/2017 13:31:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.57358	933.25	7.3421	453.80	75.709	.31344	76048.
Stddev	.22476	23.20	1.2254	6.03	.673	.15542	322.
%RSD	39.186	2.4859	16.690	1.3295	.88873	49.586	.42308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	105.7	9.2938	37.891	879.28	640.48	8680.9	31.895
Stddev	1.4	.4372	.402	1.91	3.59	27.8	1.216
%RSD	1.284	4.7045	1.0614	.21742	.55995	.31976	3.8123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4266.5	417.32	27.080	160870.	122.40	41.368	31.56
Stddev	66.6	.64	.284	293.	2.02	1.367	.88
%RSD	1.5604	.15387	1.0473	.18192	1.6491	3.3038	2.777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81923-a-4-b@10 Acquired: 7/12/2017 13:31:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.9198	4.7331	8.4243	-.88587	2.9144	F 30092.	783.87
Stddev	1.6640	.3383	.1799	.21410	1.8286	411.	8.78
%RSD	16.774	7.1481	2.1351	24.169	62.744	1.3673	1.1205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						10000.	
Low Limit						-500000.	

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	380.33
Stddev	3.10
%RSD	.81392
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7255.4	4626.9	59550.	9330.0
Stddev	3.2	10.5	100.	9.6
%RSD	.04445	.22636	.16826	.10312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.408%	93.750%	93.644%	100.80%
Range				

Sample Name: mb 240-286672/1-a Acquired: 7/12/2017 13:35:32 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17544	9.1956	.19879	7.8009	1.2250	.02785	239.67	-.0900
Stddev	.26952	18.310	1.9609	.4342	.1883	.12137	4.94	.1304
%RSD	153.63	199.12	986.42	5.5663	15.369	435.77	2.0606	144.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17229	.50788	2.7104	17.756	-8.9360	.21550	96.883	-.04167
Stddev	.32938	.31375	.4224	3.443	21.599	1.9458	34.078	.09051
%RSD	191.18	61.777	15.586	19.391	241.70	902.93	35.175	217.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09141	676.14	.60458	.83542	1.757	2.8889	-.35170	.06365
Stddev	.12649	13.03	.31686	.52650	.562	1.6832	.01369	.04389
%RSD	138.38	1.9269	52.410	63.022	31.99	58.262	3.8939	68.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286672/1-a Acquired: 7/12/2017 13:35:32 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.34135	-.64040	1.2243	57.015	-4.1575
Stddev	1.0538	.86899	.0955	5.320	1.8460
%RSD	308.72	135.69	7.8002	9.3312	44.403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8220.8	4849.7	62675.	9231.7
Stddev	10.8	11.4	364.	27.3
%RSD	.13194	.23523	.58130	.29520

Sample Name: lcs 240-286672/2-a Acquired: 7/12/2017 13:39:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.731	2089.5	2143.1	1055.2	1975.6	47.954	50245.	53.15
Stddev	.110	19.9	5.9	1.2	7.7	.569	123.	.21
%RSD	.20825	.95467	.27710	.11809	.39191	1.1857	.24567	.3947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	505.28	204.87	258.54	1036.6	50111.	1011.3	50840.	519.65
Stddev	2.04	.63	1.15	3.4	73.	4.5	374.	.53
%RSD	.40342	.30795	.44372	.32611	.14630	.44660	.73554	.10148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	971.99	49347.	514.31	502.85	522.7	2155.5	2040.2	995.79
Stddev	4.33	130.	2.32	1.66	1.1	6.4	10.5	2.15
%RSD	.44516	.26365	.45021	.32946	.2099	.29565	.51249	.21615
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286672/2-a Acquired: 7/12/2017 13:39:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2019.1	505.86	514.86	1149.7	989.40
Stddev	12.5	1.82	2.18	11.8	6.02
%RSD	.62120	.36020	.42433	1.0288	.60802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7299.5	4610.7	59468.	9063.0
Stddev	16.5	8.4	47.	38.8
%RSD	.22606	.18278	.07870	.42766

Sample Name: 240-82060-a-7-a Acquired: 7/12/2017 13:43:53 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12749	7.3326	4.3622	163.46	86.312	.30934	39793.	.0069
Stddev	.32050	14.609	.6196	1.12	.410	.15671	228.	.1762
%RSD	251.38	199.23	14.204	.68612	.47456	50.659	.57269	2569.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00450	.89054	.53811	80.431	1531.6	13.019	25226.	7.9903
Stddev	.30334	.12034	.49895	.710	17.2	1.605	183.	.0692
%RSD	6743.2	13.513	92.722	.88272	1.1217	12.327	.72388	.86561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.0427	23319.	.91288	1.0799	2.761	2.7290	1.2267	1.2671
Stddev	.0356	99.	.40354	1.4613	.897	.4974	.4304	.0624
%RSD	.44275	.42457	44.205	135.31	32.47	18.226	35.087	4.9208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-a-7-a Acquired: 7/12/2017 13:43:53 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.98457	-.82933	.40334	7587.6	852.89
Stddev	1.6773	.49451	.08127	33.2	6.85
%RSD	170.36	59.627	20.150	.43746	.80362
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7599.7	4667.6	60025.	9138.8
Stddev	16.1	10.3	43.	38.8
%RSD	.21177	.22165	.07176	.42435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.509%	94.575%	94.391%	98.732%
Range				

Sample Name: SD 240-82060-a-7-a@5 Acquired: 7/12/2017 13:48:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34992	36.548	1.3356	32.326	17.190	.05455	7883.5	-.1341
Stddev	.37215	10.121	1.9785	.452	.205	.03437	40.4	.1112
%RSD	106.35	27.692	148.14	1.3973	1.1951	63.002	.51262	82.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21458	.30602	.32713	15.565	268.74	1.5534	5075.8	1.0325
Stddev	.03515	.34822	.89659	.502	27.56	.3668	89.9	.0721
%RSD	16.381	113.79	274.08	3.2238	10.255	23.616	1.7712	6.9821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6077	4855.3	.28896	-.12633	.7352	.97958	.14972	.18930
Stddev	.1572	23.9	.26155	.98301	1.326	2.0288	.46690	.24899
%RSD	9.7782	.49265	90.515	778.16	180.4	207.11	311.85	131.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-82060-a-7-a@5 Acquired: 7/12/2017 13:48:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.63066	-.75861	-1.7378	1489.6	170.02
Stddev	1.1474	3.4942	.0506	28.0	5.67
%RSD	181.94	460.60	2.9117	1.8818	3.3362
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8104.6	4825.5	61958.	9147.0
Stddev	16.7	5.4	193.	34.4
%RSD	.20596	.11287	.31089	.37584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.521%	97.775%	97.430%	98.821%
Range				

Sample Name: PDS 240-82060-a-7-a Acquired: 7/12/2017 13:52:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.259	2126.4	2195.1	1249.5	2109.3	48.545	89999.	53.96
Stddev	.582	16.5	16.1	4.7	10.2	.331	386.	.42
%RSD	1.0925	.77797	.73219	.37740	.48212	.68217	.42936	.7866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	521.16	208.50	259.67	1130.7	52766.	1056.2	75635.	533.43
Stddev	3.08	1.29	1.49	8.9	233.	6.3	426.	2.17
%RSD	.59033	.61751	.57310	.78381	.44234	.59729	.56317	.40607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1014.7	73669.	522.52	507.83	514.9	2199.8	2137.8	1028.4
Stddev	12.4	386.	3.96	4.89	8.6	12.4	16.5	4.4
%RSD	1.2184	.52410	.75828	.96382	1.673	.56584	.77145	.42595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: PDS 240-82060-a-7-a Acquired: 7/12/2017 13:52:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2073.5	518.01	526.28	8610.0	1853.8
Stddev	4.2	3.83	3.18	52.4	19.5
%RSD	.20123	.74003	.60475	.60906	1.0494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7037.6	4516.1	57927.	8950.3
Stddev	2.8	8.1	209.	13.9
%RSD	.03979	.18008	.36130	.15522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.813%	91.506%	91.093%	96.696%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 13:56:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	992.05	25346.	514.75	5037.0	1978.8	1856.8	49252.	500.3
Stddev	3.79	127.	2.46	19.8	6.7	9.6	159.	1.6
%RSD	.38182	.50088	.47813	.39406	.34045	.51906	.32271	.3159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2035.4	2012.7	1983.6	25253.	49577.	5025.4	49840.	2075.5
Stddev	5.9	4.5	9.7	136.	127.	21.0	149.	2.6
%RSD	.28887	.22293	.48691	.53707	.25602	.41809	.29987	.12492
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1967.6	49002.	2031.3	494.16	509.1	514.91	5142.9	4973.2
Stddev	9.5	171.	7.6	.46	1.1	1.98	13.1	18.9
%RSD	.48096	.34825	.37176	.09375	.2137	.38478	.25515	.37913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 13:56:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1017.2	1978.3	2052.1	5194.9	4843.9
Stddev	2.4	5.9	5.8	43.5	35.8
%RSD	.23577	.29596	.28158	.83729	.73851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7099.4	4602.7	58743.	8948.8
Stddev	20.0	16.0	86.	27.1
%RSD	.28236	.34797	.14697	.30230

Sample Name: CCB Acquired: 7/12/2017 14:00:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.01295	20.456	1.2685	8.1186	.05079	.13018	9.1113	.0188
Stddev	.29482	20.900	.5546	.8151	.06914	.03428	2.8253	.0790
%RSD	2275.8	102.17	43.723	10.040	136.12	26.332	31.009	420.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22864	.54780	.78076	2.4525	-51.801	-.89125	-3.7560	.16280
Stddev	.06389	.22649	.27163	.6717	28.409	.85324	30.188	.03348
%RSD	27.942	41.346	34.791	27.390	54.843	95.735	803.73	20.564
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.4795	211.59	.34230	.16959	1.616	-.84208	.57608	2.3536
Stddev	.1126	9.23	.29687	1.0776	2.165	2.4008	.49921	.2951
%RSD	3.2354	4.3631	86.729	635.39	134.0	285.11	86.656	12.538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 14:00:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.39699	-.89078	.39063	11.701	-1.5778
Stddev	1.4500	.46256	.17821	3.305	6.2363
%RSD	365.25	51.928	45.622	28.247	395.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8244.9	4854.6	62698.	9154.3
Stddev	34.8	20.3	339.	45.4
%RSD	.42164	.41829	.54091	.49608

Sample Name: 240-82060-a-7-b ms Acquired: 7/12/2017 14:04:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.998	2074.9	2158.8	1215.8	2056.9	47.522	89014.	53.11
Stddev	.182	10.7	8.5	6.2	7.3	.545	341.	.27
%RSD	.34314	.51800	.39213	.50950	.35249	1.1464	.38332	.5029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	505.67	202.13	253.73	1091.8	51589.	1018.3	74018.	523.76
Stddev	2.39	.23	.83	3.1	256.	4.1	491.	.18
%RSD	.47303	.11143	.32825	.28583	.49666	.40127	.66292	.03464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	983.24	72306.	513.99	497.94	521.6	2154.3	2062.0	990.82
Stddev	6.42	364.	1.91	2.64	1.3	13.4	15.4	1.99
%RSD	.65290	.50336	.37136	.53015	.2519	.62202	.74492	.20034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-a-7-b ms Acquired: 7/12/2017 14:04:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2019.0	501.57	513.97	8526.2	1823.5
Stddev	19.8	2.12	2.86	31.5	8.6
%RSD	.98271	.42337	.55654	.36937	.47430
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7094.1	4560.0	58892.	9116.5
Stddev	7.5	3.2	72.	32.6
%RSD	.10615	.06915	.12213	.35730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.487%	92.396%	92.610%	98.491%
Range				

Sample Name: 240-82060-a-7-c msd Acquired: 7/12/2017 14:08:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.671	2088.7	2169.8	1222.1	2060.9	47.413	89114.	53.18
Stddev	.465	20.7	25.2	7.6	4.2	.550	242.	.28
%RSD	.88371	.98993	1.1629	.62444	.20529	1.1595	.27191	.5206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	506.87	202.18	255.03	1089.9	51686.	1023.0	74175.	526.48
Stddev	3.17	.58	.35	4.5	203.	4.9	242.	1.19
%RSD	.62498	.28562	.13847	.41540	.39335	.48357	.32649	.22611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	987.96	72418.	513.63	499.37	525.8	2165.3	2067.8	991.22
Stddev	9.57	234.	2.69	4.23	4.8	10.7	15.8	1.33
%RSD	.96861	.32255	.52324	.84802	.9054	.49548	.76348	.13406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-a-7-c msd Acquired: 7/12/2017 14:08:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2021.4	502.56	512.21	8595.7	1819.1
Stddev	19.7	1.49	3.19	50.8	11.4
%RSD	.97296	.29706	.62225	.59075	.62891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7041.2	4514.2	58261.	9022.3
Stddev	13.2	8.5	64.	32.2
%RSD	.18794	.18723	.10981	.35730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.856%	91.467%	91.617%	97.474%
Range				

Sample Name: 240-82096-e-1-a Acquired: 7/12/2017 14:12:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.0398	6363.9	17.625	204.67	613.19	.96178	144270.
Stddev	.0512	60.2	2.034	3.89	1.28	.04660	364.
%RSD	.56666	.94623	11.542	1.8998	.20941	4.8451	.25250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 57900.	24.974	7550.5	2357.6	33214.	7966.5	16.029
Stddev	285.	1.056	38.6	10.4	127.	7.5	1.703
%RSD	.4925	4.2269	.51082	.43963	.38163	.09448	10.621
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2000.						
Low Limit	-500000.						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20841.	790.87	27.178	312060.	852.08	2195.2	58.43
Stddev	21.	2.86	.711	3136.	11.03	23.3	1.08
%RSD	.10111	.36178	2.6170	1.0049	1.2947	1.0630	1.846
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82096-e-1-a Acquired: 7/12/2017 14:12:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.3208	1976.8	6465.8	3.5051	31.720	1385.2	14548.
Stddev	1.5832	66.4	99.1	1.3613	2.963	24.3	555.
%RSD	47.675	3.3587	1.5333	38.839	9.3405	1.7575	3.8120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	479.84
Stddev	8.40
%RSD	1.7510
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6750.3	4504.3	57766.	9121.7
Stddev	7.5	3.5	104.	8.7
%RSD	.11081	.07771	.18077	.09520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.392%	91.267%	90.838%	98.547%
Range				

Sample Name: 240-82096-e-2-a Acquired: 7/12/2017 14:17:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.9585	4145.5	6.6548	104.89	450.33	.86219	104620.
Stddev	.3322	60.4	3.0775	.60	3.23	.08930	895.
%RSD	6.6986	1.4578	46.245	.57452	.71765	10.357	.85557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 57310.	16.166	8238.6	500.59	43267.	4434.5	12.315
Stddev	513.	.240	19.6	1.99	350.	43.4	1.649
%RSD	.8955	1.4815	.23759	.39669	.80892	.97822	13.388
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2000.						
Low Limit	-500000.						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18962.	846.44	18.761	39008.	432.23	2690.2	116.7
Stddev	162.	2.51	.249	372.	5.03	19.7	1.6
%RSD	.85410	.29683	1.3293	.95408	1.1637	.73342	1.332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82096-e-2-a Acquired: 7/12/2017 14:17:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31681	1931.9	3753.8	4.4555	17.276	1289.7	11307.
Stddev	1.5204	23.0	4.8	.9649	1.033	12.1	150.
%RSD	479.93	1.1902	.12697	21.656	5.9764	.93547	1.3246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	447.31
Stddev	7.55
%RSD	1.6869
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7275.5	4628.9	59742.	9126.7
Stddev	15.1	6.0	113.	73.7
%RSD	.20719	.13013	.18982	.80746
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.648%	93.792%	93.946%	98.601%
Range				

Sample Name: 240-81987-h-1-a Acquired: 7/12/2017 14:21:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06255	3226.4	1.9119	58.210	128.68	3.4773	36869.
Stddev	.19886	27.1	1.9112	.641	1.13	.0995	254.
%RSD	317.90	.83998	99.967	1.1013	.87913	2.8625	.68981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.847	49.095	3.6139	13.920	2033.4	4067.9	3.7269
Stddev	.679	.490	.2185	.671	20.5	43.7	.8661
%RSD	17.66	.99746	6.0459	4.8185	1.0075	1.0746	23.239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14720.	322.53	1.3444	131670.	79.143	3.1522	1.734
Stddev	28.	.48	.0428	451.	1.119	1.1655	.501
%RSD	.19156	.14769	3.1806	.34288	1.4142	36.975	28.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81987-h-1-a Acquired: 7/12/2017 14:21:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.86787	1.1583	48.776	-.19681	2.6447	96.741	9678.0
Stddev	2.0848	.1389	2.039	1.5260	1.4652	1.474	16.0
%RSD	240.22	11.990	4.1814	775.37	55.402	1.5234	.16555
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	267.77
Stddev	.36
%RSD	.13405
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7342.4	4877.5	62622.	9624.2
Stddev	10.9	13.2	200.	33.5
%RSD	.14808	.26971	.31960	.34765
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.444%	98.829%	98.475%	103.98%
Range				

Sample Name: 240-81987-k-2-a Acquired: 7/12/2017 14:26:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.34941	122.63	1.5593	23.762	76.638	1.4885	7395.4	2.033
Stddev	.15106	13.61	1.5880	.350	.414	.1584	36.8	.051
%RSD	43.232	11.095	101.84	1.4722	.53993	10.640	.49748	2.506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.141	.61983	5.3696	1331.1	2313.0	7.0693	4826.1	323.42
Stddev	.981	.07453	.8792	15.4	45.2	1.1846	90.2	1.49
%RSD	1.9967	12.024	16.374	1.1579	1.9539	16.757	1.8699	.46162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.03815	29207.	72.329	.28021	-.4328	-.99091	.39127	.89020
Stddev	.05469	146.	1.566	2.2299	.6717	.77196	.70483	.03061
%RSD	143.34	.49997	2.1657	795.79	155.2	77.904	180.14	3.4383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-81987-k-2-a Acquired: 7/12/2017 14:26:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.59873	-1.6678	101.71	6843.7	46.048
Stddev	.71418	2.4518	1.86	60.2	2.240
%RSD	119.28	147.01	1.8258	.87953	4.8653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7903.3	4775.3	61339.	9175.9
Stddev	10.6	4.1	197.	22.2
%RSD	.13368	.08610	.32194	.24140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.124%	96.758%	96.457%	99.133%
Range				

Sample Name: 240-82096-e-1-a@100 Acquired: 7/12/2017 14:31:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.20104	59.958	-1.3050	3.5026	6.0962	-.01313	1451.9	1791.
Stddev	.12594	21.327	1.1298	.3274	.2096	.16588	24.4	11.
%RSD	62.645	35.570	86.576	9.3472	3.4379	1263.7	1.6777	.6137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02117	79.578	24.684	350.54	-4.6129	-2.0772	199.74	7.7772
Stddev	.07090	1.261	.362	2.96	11.554	1.8109	13.36	.2460
%RSD	334.89	1.5840	1.4668	.84336	250.46	87.182	6.6895	3.1629
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15115	3388.5	8.5000	24.191	.9403	-1.1431	18.291	66.471
Stddev	.14134	41.3	.3415	.662	2.404	.2408	.634	.994
%RSD	93.514	1.2197	4.0177	2.7369	255.6	21.065	3.4648	1.4960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82096-e-1-a@100 Acquired: 7/12/2017 14:31:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.15512	-.14390	11.153	177.13	4.2379
Stddev	.43239	1.5824	.042	1.62	5.1928
%RSD	278.75	1099.7	.37764	.91302	122.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8148.2	4816.1	61409.	9123.1
Stddev	24.6	3.4	891.	103.4
%RSD	.30247	.07068	1.4514	1.1334
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.041%	97.584%	96.567%	98.563%
Range				

Sample Name: 240-82096-e-2-a@100 Acquired: 7/12/2017 14:35:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.54056	51.897	-1.2124	2.5160	4.3398	.21465	1003.2	1762.
Stddev	.23371	6.507	.7514	.8075	.1818	.10464	11.1	19.
%RSD	43.235	12.538	61.979	32.095	4.1901	48.750	1.1106	1.097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.21342	83.686	5.6221	438.47	-7.7810	-1.7332	176.23	8.1091
Stddev	.19076	.162	.5288	2.34	25.415	.6865	24.46	.0512
%RSD	89.383	.19395	9.4049	.53349	326.63	39.609	13.881	.63160
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.18944	534.60	3.8981	29.282	2.738	-1.8576	17.571	36.884
Stddev	.38774	5.58	.5260	.603	.862	1.0591	.724	.204
%RSD	204.68	1.0445	13.495	2.0610	31.49	57.014	4.1181	.55177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82096-e-2-a@100 Acquired: 7/12/2017 14:35:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.28245	-.50189	10.612	127.46	1.8625
Stddev	.40063	.86883	.176	4.12	8.0654
%RSD	141.84	173.11	1.6568	3.2340	433.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8222.5	4852.4	62297.	9125.6
Stddev	30.2	25.6	95.	27.5
%RSD	.36683	.52857	.15305	.30155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.925%	98.320%	97.964%	98.589%
Range				

Sample Name: 480-120454-c-4-a@2 Acquired: 7/12/2017 14:39:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08719	16.401	2.4756	12380.	24.742	.17383
Stddev	.67843	8.686	2.5382	83.	.067	.04571
%RSD	778.08	52.959	102.53	.67232	.27237	26.295
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	238140.	-.0810	.57420	1.8659	-1.7662	9229.0
Stddev	1000.	.0887	.20942	.4173	.6504	31.5
%RSD	.41998	109.6	36.472	22.366	36.826	.34181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23817.	30.912	34994.	942.52	3767.4	F 1400200.
Stddev	207.	1.042	69.	3.28	42.8	4084.
%RSD	.87018	3.3696	.19705	.34764	1.1351	.29164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 480-120454-c-4-a@2 Acquired: 7/12/2017 14:39:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1286	2.2542	1.558	-3.4097	-.19538	.95283
Stddev	.7461	1.0521	.538	2.4425	.28481	.20423
%RSD	66.110	46.674	34.53	71.634	145.77	21.435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.2184	3.3771	-1.2165	2959.8	751.06
Stddev	1.1390	.6390	.0373	44.5	6.48
%RSD	93.480	18.921	3.0626	1.5035	.86273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5862.5	4126.7	51836.	8721.1
Stddev	3.1	6.5	78.	39.3
%RSD	.05325	.15730	.15092	.45116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.819%	83.615%	81.514%	94.220%
Range				

Sample Name: 480-120464-C-10-A@2 Acquired: 7/12/2017 14:44:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.20096	45.593	3.5916	10078.	13.785	.15979
Stddev	.21131	20.763	4.4849	90.	.079	.15461
%RSD	105.15	45.540	124.87	.89144	.57640	96.760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	249080.	-.0960	.76754	2.1298	-2.2659	9800.5
Stddev	472.	.0867	.23050	.2816	.8342	27.0
%RSD	.18968	90.29	30.031	13.220	36.816	.27513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	72831.	106.76	52137.	1442.0	1542.7	F 2342900.
Stddev	203.	4.33	367.	11.8	17.3	27853.
%RSD	.27920	4.0573	.70409	.82009	1.1224	1.1888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 480-120464-C-10-A@2 Acquired: 7/12/2017 14:44:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1185	3.5743	3.336	-2.9304	.29100	.98697
Stddev	.2875	1.0483	.788	2.3783	.55398	.61547
%RSD	13.571	29.328	23.63	81.157	190.37	62.359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.5620	3.3570	-1.7657	2248.0	1272.3
Stddev	.7437	2.0663	.3192	29.5	12.0
%RSD	47.608	61.554	18.077	1.3142	.94607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5203.9	3794.4	47248.	8344.1
Stddev	11.8	13.3	279.	10.2
%RSD	.22659	.34939	.59058	.12244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	61.976%	76.883%	74.298%	90.147%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 14:48:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1000.9	25028.	520.48	5127.9	1972.0	1868.2	48857.	503.8
Stddev	8.0	73.	4.33	24.9	6.0	2.2	178.	2.7
%RSD	.80350	.28998	.83205	.48623	.30388	.11948	.36483	.5396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2035.2	2001.1	1992.3	24927.	49325.	4980.2	48928.	2055.4
Stddev	17.6	15.6	20.6	72.	122.	13.4	142.	19.2
%RSD	.86624	.78114	1.0358	.28788	.24703	.26940	.29016	.93267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1974.1	48493.	2035.5	496.43	516.0	519.15	5152.2	4998.9
Stddev	17.9	129.	18.1	4.26	3.0	3.32	41.4	37.0
%RSD	.90914	.26555	.88927	.85815	.5786	.63931	.80388	.73974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 14:48:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1024.8	1955.2	2050.0	5124.2	4802.2
Stddev	8.2	13.2	15.4	51.2	11.0
%RSD	.80478	.67728	.75185	.99917	.22957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7072.3	4573.4	58599.	9017.7
Stddev	28.1	14.3	202.	30.4
%RSD	.39682	.31260	.34504	.33706

Sample Name: CCB Acquired: 7/12/2017 14:52:32 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27166	10.551	-1.8961	19.329	-.13039	.11481	9.2279	.0614
Stddev	.31873	14.696	2.6648	.859	.19566	.18395	1.8218	.1841
%RSD	117.33	139.29	140.54	4.4429	150.06	160.22	19.742	299.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08587	-.03331	.99980	2.2141	-2.9929	.71894	-19.361	.01762
Stddev	.08224	.18223	.72856	1.0763	29.684	.82092	4.930	.03494
%RSD	95.772	546.99	72.871	48.611	991.82	114.18	25.466	198.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.0688	698.50	.07361	.42528	1.636	-.39414	.73396	2.2133
Stddev	.2790	8.59	.24470	.65065	2.629	2.9784	.29906	.3295
%RSD	6.8573	1.2297	332.43	152.99	160.6	755.67	40.747	14.888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 14:52:32 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.27719	-.55001	.31964	12.097	-5.1599
Stddev	.43207	2.3961	.04088	3.547	3.2349
%RSD	155.87	435.65	12.790	29.323	62.693
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8263.1	4860.0	62937.	9159.1
Stddev	11.9	8.6	186.	36.2
%RSD	.14343	.17634	.29607	.39551

Sample Name: CCVL-3085197 Acquired: 7/12/2017 14:56:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.350	202.52	14.962	118.22	196.41	4.9750	5066.8	5.166
Stddev	.055	10.27	.793	1.42	.45	.1060	5.6	.055
%RSD	.52708	5.0737	5.3014	1.1979	.22805	2.1300	.11116	1.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.8221	10.592	21.116	209.73	5044.9	50.007	5128.2	15.286
Stddev	.1068	.103	.098	1.66	6.2	1.342	41.4	.057
%RSD	1.0876	.97578	.46323	.79088	.12335	2.6836	.80658	.37177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.859	5276.7	40.095	10.835	20.59	20.427	98.228	50.579
Stddev	.463	6.6	.369	.311	.87	1.349	1.303	.187
%RSD	1.1069	.12425	.92078	2.8672	4.207	6.6019	1.3269	.36886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-3085197 Acquired: 7/12/2017 14:56:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	19.458	9.8170	47.642	521.47	47.715
Stddev	.460	4.7835	.528	9.70	3.371
%RSD	2.3643	48.726	1.1077	1.8593	7.0642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7999.4	4784.9	62054.	9145.8
Stddev	24.7	15.3	114.	27.0
%RSD	.30879	.32047	.18368	.29543

Sample Name: ICSA-2950210 Acquired: 7/12/2017 15:01:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04945	495870.	-.62467	5.7609	-.01453	.36214	459120.
Stddev	.40674	1795.	7.5891	.6440	.20138	.07690	4875.
%RSD	822.54	.36198	1214.9	11.179	1386.0	21.235	1.0619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3692	.21950	3.3012	-5.3402	183690.	-36.452	18.148
Stddev	.0235	.24526	.4887	.5551	507.	16.500	.838
%RSD	6.375	111.73	14.803	10.395	.27575	45.266	4.6175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	488250.	2.3290	-1.7651	724.95	.24406	2.4265	1.268
Stddev	1494.	.0153	.6494	19.97	.75564	2.1249	4.191
%RSD	.30598	.65617	36.792	2.7552	309.61	87.571	330.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: ICSA-2950210 Acquired: 7/12/2017 15:01:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0540	1.5700	-.14318	1.4270	-3.5452	1.8219	10.595
Stddev	1.3343	.3432	.28763	1.4126	4.2218	.4763	5.538
%RSD	126.59	21.857	200.89	98.992	119.09	26.145	52.268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	6.7105
Stddev	5.2277
%RSD	77.903
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6205.1	4252.8	54103.	8784.2
Stddev	14.1	8.7	123.	51.9
%RSD	.22673	.20409	.22685	.59054

Sample Name: ICSAB-2994924 Acquired: 7/12/2017 15:05:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1054.3	503410.	1024.1	509.77	488.11	456.16	467010.
Stddev	7.7	515.	7.5	3.60	.80	2.17	2513.
%RSD	.72572	.10234	.73312	.70697	.16476	.47514	.53808
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1021.	503.63	488.73	521.06	186810.	10332.	542.94
Stddev	5.	2.99	3.24	2.25	289.	81.	1.94
%RSD	.5378	.59391	.66291	.43136	.15463	.78593	.35768
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	499710.	499.38	926.41	10695.	994.42	903.13	988.7
Stddev	627.	3.10	7.64	21.	5.45	7.96	10.4
%RSD	.12546	.61978	.82523	.19583	.54784	.88115	1.057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB-2994924 Acquired: 7/12/2017 15:05:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1003.3	504.24	482.85	953.71	474.02	1028.0	9525.2
Stddev	12.8	3.06	2.72	7.09	2.72	5.9	24.4
%RSD	1.2719	.60761	.56256	.74289	.57303	.57277	.25594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1405.0
Stddev	5.3
%RSD	.37798
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6125.8	4221.5	53742.	8741.5
Stddev	12.6	8.3	169.	12.4
%RSD	.20542	.19547	.31453	.14132

Sample Name: 480-120454-c-12-a@2 Acquired: 7/12/2017 15:09:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.27530	54.631	5.1243	11396.	12.764	.22179
Stddev	.12722	32.140	1.6782	108.	.134	.07406
%RSD	46.212	58.831	32.750	.94631	1.0503	33.390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	82369.	-.3175	.88893	1.2312	-.99852	1710.6
Stddev	138.	.0528	.10903	.4957	.23331	8.6
%RSD	.16782	16.63	12.265	40.263	23.365	.50481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64045.	52.969	9246.5	377.11	1849.7	F 1903500.
Stddev	84.	.745	61.6	.63	22.4	26238.
%RSD	.13099	1.4073	.66597	.16699	1.2085	1.3784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 480-120454-c-12-a@2 Acquired: 7/12/2017 15:09:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8791	.18204	7.165	-1.0225	-.00995	1.5659
Stddev	.5006	1.0598	2.620	2.7988	.92232	.1469
%RSD	26.638	582.17	36.57	273.72	9268.3	9.3821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.06233	6.2624	.33597	1666.3	488.02
Stddev	1.5419	1.6771	.15604	8.0	9.92
%RSD	2473.7	26.780	46.446	.47901	2.0325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5680.1	4049.8	50391.	8574.0
Stddev	9.6	11.1	111.	18.4
%RSD	.16862	.27440	.22030	.21462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.647%	82.057%	79.241%	92.630%
Range				

Sample Name: 480-120453-C-7-A@2 Acquired: 7/12/2017 15:14:10 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26140	48.270	64.792	11443.	13.999	.14316	228780.
Stddev	.11274	12.805	2.216	99.	.149	.19774	511.
%RSD	43.130	26.527	3.4199	.86698	1.0650	138.12	.22317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0797	.22729	1.4086	-.05230	37.949	16855.	20.399
Stddev	.0613	.09630	.1904	.67705	.969	71.	.776
%RSD	76.96	42.368	13.518	1294.7	2.5535	.42003	3.8025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20524.	226.66	7.5756	97298.	1.8273	3.2145	6.628
Stddev	56.	.18	.0755	432.	.1811	.6003	1.452
%RSD	.27335	.07825	.99682	.44390	9.9099	18.673	21.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 480-120453-C-7-A@2 Acquired: 7/12/2017 15:14:10 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.56584	-.38282	-.04133	-.35763	-4.9980	-1.0728	1855.0
Stddev	2.4968	.50285	.11275	1.8301	2.2643	.0700	17.0
%RSD	441.26	131.35	272.78	511.74	45.305	6.5228	.91544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1104.2
Stddev	5.3
%RSD	.48233
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7099.2	4531.0	58306.	9071.2
Stddev	16.8	15.9	55.	15.4
%RSD	.23614	.35101	.09391	.16927
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.548%	91.807%	91.688%	98.002%
Range				

Sample Name: 240-82013-f-2-c Acquired: 7/12/2017 15:18:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.39022	27.137	1.3874	225.57	438.35	-.02368	20032.	.2821
Stddev	.19541	21.193	1.0932	3.72	1.68	.19063	74.	.1029
%RSD	50.077	78.096	78.796	1.6495	.38408	805.01	.37018	36.49
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06560	1.9712	1.5361	22817.	3641.7	3.7458	2728.3	965.53
Stddev	.13526	.2960	.3655	70.	41.2	1.1740	45.3	8.62
%RSD	206.19	15.019	23.798	.30635	1.1309	31.342	1.6621	.89297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.4963	13979.	.25184	.19114	.8663	.32088	.96102	.66374
Stddev	.1000	70.	.50982	2.0459	1.138	.88424	.16902	.16217
%RSD	4.0067	.50014	202.43	1070.3	131.4	275.57	17.588	24.432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82013-f-2-c Acquired: 7/12/2017 15:18:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.4670	-1.3430	34.756	4365.7	52.924
Stddev	.2723	1.7945	.665	50.4	3.395
%RSD	11.037	133.62	1.9135	1.1546	6.4146
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7781.8	4696.4	62009.	9337.8
Stddev	28.2	16.3	374.	45.4
%RSD	.36228	.34758	.60343	.48592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.677%	95.159%	97.511%	100.88%
Range				

Sample Name: CCVL-3085197 Acquired: 7/12/2017 15:22:50 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.386	F 300.75	16.030	124.54	196.02	4.8496	4936.9
Stddev	.536	7.87	2.285	1.62	.64	.3348	9.4
%RSD	5.1611	2.6171	14.254	1.2977	.32785	6.9043	.19006
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		200.00					
Range		30.500%					

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.199	10.122	10.636	20.704	211.96	4984.7	49.696
Stddev	.150	.382	.209	.766	.71	33.3	2.228
%RSD	2.880	3.7715	1.9641	3.7003	.33373	.66878	4.4837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5102.2	15.638	41.656	5124.1	40.140	11.567	21.88
Stddev	60.8	.142	.393	24.5	.388	1.286	.34
%RSD	1.1916	.90505	.94230	.47857	.96761	11.116	1.544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCVL-3085197 Acquired: 7/12/2017 15:22:50 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.913	99.550	49.747	20.034	10.418	49.171	648.54
Stddev	1.885	.543	.249	.416	3.533	.498	12.64
%RSD	9.9652	.54586	.50005	2.0780	33.912	1.0122	1.9488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	50.261
Stddev	2.195
%RSD	4.3674
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8007.4	4798.5	61844.	9091.5
Stddev	5.7	2.5	145.	32.1
%RSD	.07156	.05222	.23404	.35313

Sample Name: mb 240-286689/1-a Acquired: 7/12/2017 15:27:10 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.39973	16.030	.45549	19.035	1.0135	.02710	165.16	.0683
Stddev	.48810	10.376	1.9013	.454	.1763	.08177	2.10	.0903
%RSD	122.11	64.733	417.42	2.3845	17.391	301.72	1.2732	132.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10103	.73321	3.1384	26.171	-3.6099	-2.1515	63.618	-.03369
Stddev	.05347	.18946	.5043	1.129	16.703	2.3864	11.736	.03535
%RSD	52.920	25.840	16.070	4.3147	462.69	110.92	18.448	104.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.41047	362.19	1.0734	.31581	2.284	-2.3888	28.065	.40055
Stddev	.29695	1.34	.0707	.94802	2.595	3.9048	.588	.10344
%RSD	72.343	.36981	6.5901	300.19	113.6	163.46	2.0954	25.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286689/1-a Acquired: 7/12/2017 15:27:10 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.4185	-2.5744	-1.1341	70.786	2.7211
Stddev	.2891	.5141	.1879	4.355	4.5627
%RSD	20.382	19.971	16.565	6.1527	167.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8113.7	4820.0	62621.	9140.5
Stddev	12.0	4.1	13.	10.0
%RSD	.14760	.08416	.02024	.10914

Sample Name: lcs 240-286689/2-a Acquired: 7/12/2017 15:31:34 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.606	2051.8	2040.0	994.47	1952.9	46.713	49518.	50.80
Stddev	.641	21.4	4.7	4.97	6.6	.228	137.	.51
%RSD	1.2912	1.0407	.23132	.49993	.33880	.48905	.27664	1.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	492.69	200.63	249.04	1029.0	49284.	997.88	50082.	509.04
Stddev	2.21	.43	1.18	5.5	134.	2.70	56.	2.47
%RSD	.44808	.21395	.47567	.53562	.27276	.27014	.11258	.48541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	970.02	48690.	500.32	483.96	490.6	1998.6	2010.9	980.98
Stddev	5.65	130.	1.91	2.78	2.9	8.6	7.2	4.44
%RSD	.58218	.26607	.38243	.57428	.5850	.43152	.36020	.45212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286689/2-a Acquired: 7/12/2017 15:31:34 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1928.1	497.40	499.70	1135.0	980.61
Stddev	4.8	3.11	2.15	16.9	8.32
%RSD	.25002	.62476	.43093	1.4919	.84851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7184.0	4541.2	58771.	8817.3
Stddev	18.2	12.4	165.	25.6
%RSD	.25272	.27357	.28099	.28977

Sample Name: 240-82069-b-11-a Acquired: 7/12/2017 15:35:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.1078	161080.	67.758	27.133	1439.2	3.6652	62085.
Stddev	.2794	683.	5.369	.322	6.2	.1450	295.
%RSD	8.9894	.42407	7.9236	1.1877	.43030	3.9571	.47526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.918	151.62	337.48	158.70	252050.	5067.1	107.86
Stddev	.131	.80	2.30	1.15	1451.	59.8	1.84
%RSD	2.658	.52799	.68224	.72576	.57560	1.1792	1.7057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	73985.	4370.8	8.0051	3494.6	256.07	94.749	3.540
Stddev	400.	25.0	.0996	9.5	1.78	2.063	4.545
%RSD	.54061	.57176	1.2446	.27086	.69467	2.1775	128.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-b-11-a Acquired: 7/12/2017 15:35:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2001	36.341	2809.2	-2.2693	634.09	663.50	1351.1
Stddev	1.8194	1.379	13.9	2.3111	2.44	3.67	5.0
%RSD	151.61	3.7943	.49456	101.84	.38424	.55292	.36999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	542.71
Stddev	1.27
%RSD	.23336
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7110.7	5153.8	65977.	10073.
Stddev	4.7	5.5	120.	42.
%RSD	.06568	.10649	.18151	.41310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.685%	104.43%	103.75%	108.83%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 15:39:50 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1001.5	25613.	522.00	5127.7	1997.7	1872.5	49629.	506.9
Stddev	2.4	107.	3.79	30.8	3.5	7.0	146.	3.8
%RSD	.24336	.41822	.72559	.60025	.17554	.37490	.29375	.7554
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2051.9	2020.8	1992.4	25285.	50216.	5100.2	50426.	2070.6
Stddev	19.6	6.4	4.1	62.	166.	17.8	146.	7.1
%RSD	.95308	.31455	.20503	.24512	.33069	.34811	.28867	.34124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1986.3	49791.	2050.7	503.17	515.2	523.86	5203.7	5026.3
Stddev	11.6	149.	16.3	2.93	4.2	8.67	40.3	30.9
%RSD	.58444	.29871	.79443	.58223	.8239	1.6558	.77492	.61572
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 15:39:50 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1035.4	1996.1	2075.1	5216.0	4909.6
Stddev	3.4	12.0	16.6	75.2	7.5
%RSD	.32392	.59995	.79779	1.4408	.15242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7058.1	4560.3	58566.	8817.5
Stddev	50.2	29.4	125.	28.5
%RSD	.71180	.64481	.21381	.32346

Sample Name: CCB Acquired: 7/12/2017 15:43:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.47511	-14.485	.30600	14.577	-.17622	.28902	7.7983	-.0196
Stddev	.09476	8.024	2.2961	.923	.21433	.09609	3.1535	.1335
%RSD	19.944	55.393	750.35	6.3290	121.62	33.245	40.439	681.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07149	.27459	1.3269	5.8299	-21.126	-1.3876	-29.347	.12925
Stddev	.04541	.08246	.8448	1.4124	8.876	1.7725	12.254	.02515
%RSD	63.521	30.032	63.664	24.226	42.014	127.74	41.755	19.461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0698	129.35	.56874	1.0455	2.102	-.65517	.86813	2.3481
Stddev	.2150	3.33	.36730	1.3776	1.371	.99793	.02703	.0798
%RSD	7.0047	2.5749	64.582	131.77	65.22	152.32	3.1135	3.4001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 15:43:51 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.29736	.42179	.46107	8.0617	-1.9510
Stddev	.19173	1.2891	.08942	4.6256	6.6515
%RSD	64.478	305.62	19.395	57.377	340.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8279.0	4857.8	62989.	9111.7
Stddev	5.9	2.1	154.	48.6
%RSD	.07124	.04267	.24496	.53286

Sample Name: SD 240-82069-b-11a@5 Acquired: 7/12/2017 15:48:15 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.67096	35613.	16.904	14.200	315.47	.78492	13754.	1.097
Stddev	.37313	206.	1.629	.276	.80	.02849	43.	.149
%RSD	55.612	.57845	9.6343	1.9443	.25461	3.6293	.31201	13.62
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30.216	74.929	35.004	57141.	1059.1	23.579	16784.	978.89
Stddev	.111	.789	.230	179.	19.4	1.743	118.	5.65
%RSD	.36897	1.0530	.65680	.31247	1.8322	7.3933	.70130	.57745
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8482	847.95	51.025	20.514	2.205	-.00087	7.4697	617.20
Stddev	.2162	8.47	.403	1.916	.737	1.6709	.4835	2.26
%RSD	11.695	.99923	.78971	9.3383	33.43	193140.	6.4733	.36642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-82069-b-11a@5 Acquired: 7/12/2017 15:48:15 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.65724	140.01	132.22	307.91	121.66
Stddev	.96795	4.37	.33	4.15	3.69
%RSD	147.28	3.1237	.25266	1.3470	3.0372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7825.3	4904.1	63171.	9297.9
Stddev	12.1	6.6	313.	15.6
%RSD	.15414	.13429	.49531	.16784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.195%	99.367%	99.338%	100.45%
Range				

Sample Name: PDS 240-82069-b-11-a Acquired: 7/12/2017 15:52:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44.158	158700.	1995.9	967.47	3213.2	45.053	104710.
Stddev	.411	328.	5.4	3.47	6.2	.347	156.
%RSD	.93164	.20645	.26908	.35827	.19235	.77094	.14902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.78	675.68	507.11	385.36	244460.	51076.	1041.5
Stddev	.24	2.82	.38	1.51	616.	133.	3.3
%RSD	.4636	.41758	.07530	.39069	.25209	.25973	.31888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	117290.	4672.0	890.46	48734.	773.56	528.31	451.8
Stddev	405.	18.2	5.27	124.	3.79	1.63	4.6
%RSD	.34511	.38987	.59145	.25373	.48930	.30779	1.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-82069-b-11-a Acquired: 7/12/2017 15:52:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1905.3	2176.2	3638.1	2009.4	1046.8	1199.4	2206.3
Stddev	7.8	14.3	40.9	14.2	5.4	4.2	13.4
%RSD	.40743	.65863	1.1250	.70846	.51307	.34619	.60664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1405.1
Stddev	9.8
%RSD	.69748
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6716.3	4970.6	64487.	9984.4
Stddev	5.3	15.6	44.	4.2
%RSD	.07859	.31352	.06863	.04208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.987%	100.71%	101.41%	107.87%
Range				

Sample Name: 240-82069-b-11-b ms Acquired: 7/12/2017 15:56:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.265	178250.	1832.2	843.05	3155.6	43.408	97682.
Stddev	.168	398.	16.4	.87	11.5	.355	276.
%RSD	.40815	.22338	.89360	.10333	.36406	.81695	.28249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50.52	673.92	487.66	357.29	229650.	48120.	1003.7
Stddev	.32	4.70	1.41	.30	2510.	151.	3.5
%RSD	.6401	.69769	.28921	.08287	1.0930	.31352	.34703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	112650.	5633.7	791.98	46575.	764.86	487.33	122.5
Stddev	314.	6.1	6.49	199.	4.98	3.49	2.7
%RSD	.27880	.10814	.81994	.42646	.65108	.71555	2.241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-b-11-b ms Acquired: 7/12/2017 15:56:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1727.4	1834.6	5083.2	1847.4	1007.5	1081.6	2352.7
Stddev	10.4	12.2	38.6	12.4	7.0	6.7	18.3
%RSD	.60151	.66759	.75939	.67356	.69827	.61802	.77587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1355.6
Stddev	6.2
%RSD	.45394
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6764.3	5003.0	64583.	9899.5
Stddev	17.6	14.7	112.	30.2
%RSD	.25973	.29285	.17391	.30536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.559%	101.37%	101.56%	106.95%
Range				

Sample Name: 240-82069-b-11-c msd Acquired: 7/12/2017 16:00:48 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	41.402	173850.	1832.3	847.53	3091.6	43.960	113820.
Stddev	1.019	1165.	17.8	4.76	17.1	.231	744.
%RSD	2.4601	.67007	.97197	.56205	.55446	.52474	.65342
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.11	606.63	488.34	361.00	244420.	47961.	999.03
Stddev	.24	5.78	4.38	1.81	2240.	230.	5.58
%RSD	.4912	.95210	.89734	.50168	.91627	.47923	.55829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	109050.	4418.7	801.93	46414.	717.30	503.25	131.0
Stddev	565.	39.0	7.65	238.	7.00	3.31	.7
%RSD	.51801	.88267	.95433	.51182	.97630	.65741	.5038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-b-11-c msd Acquired: 7/12/2017 16:00:48 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1719.4	1831.9	3867.2	1821.8	1014.1	1088.0	2857.2
Stddev	9.5	19.6	18.3	13.4	10.2	10.1	21.3
%RSD	.55281	1.0713	.47203	.73785	1.0079	.93201	.74695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1359.6
Stddev	7.5
%RSD	.55082
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6667.8	4904.1	63415.	9725.7
Stddev	15.9	10.7	111.	50.5
%RSD	.23886	.21813	.17427	.51973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.410%	99.368%	99.722%	105.07%
Range				

Sample Name: 240-82069-a-1-a Acquired: 7/12/2017 16:04:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.6211	201220.	68.358	27.434	1553.2	4.6096	40747.
Stddev	.5241	1272.	1.793	.381	7.3	.1178	151.
%RSD	19.997	.63221	2.6227	1.3886	.46967	2.5562	.37131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.590	179.33	375.92	163.27	272930.	6351.1	163.34
Stddev	.047	2.20	1.06	.91	2280.	12.8	1.01
%RSD	1.023	1.2257	.28240	.55644	.83554	.20157	.62022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	85121.	7003.8	16.782	5152.6	321.87	92.231	2.049
Stddev	159.	8.6	.633	22.4	5.16	.849	2.057
%RSD	.18730	.12313	3.7745	.43568	1.6025	.92057	100.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-1-a Acquired: 7/12/2017 16:04:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.3997	39.609	2431.2	-2.0548	634.21	707.48	1695.1
Stddev	.3888	.609	7.0	.5774	3.14	6.70	10.2
%RSD	27.781	1.5366	.28905	28.100	.49515	.94734	.60163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	633.33
Stddev	11.67
%RSD	1.8430
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7073.6	5194.2	66850.	10166.
Stddev	8.3	6.1	106.	30.
%RSD	.11669	.11666	.15915	.29506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.243%	105.24%	105.12%	109.83%
Range				

Sample Name: 240-82069-a-2-a Acquired: 7/12/2017 16:09:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.5061	153470.	83.006	22.478	1637.4	3.9472	38661.
Stddev	.1141	425.	1.669	.217	5.2	.0911	48.
%RSD	2.5313	.27716	2.0106	.96735	.31472	2.3086	.12523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.522	213.24	378.95	184.40	290290.	5068.5	111.46
Stddev	.130	2.29	2.41	.50	940.	10.3	2.59
%RSD	1.995	1.0739	.63713	.27133	.32380	.20373	2.3251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	83308.	5689.7	8.7690	4269.1	293.28	112.54	1.128
Stddev	46.	65.9	.1546	5.9	5.31	1.90	1.126
%RSD	.05471	1.1586	1.7628	.13910	1.8094	1.6873	99.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-2-a Acquired: 7/12/2017 16:09:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.1105	38.945	2203.2	-3.2165	739.85	806.09	1668.0
Stddev	1.1824	.964	7.6	1.4466	8.06	8.94	22.0
%RSD	28.765	2.4752	.34580	44.975	1.0889	1.1089	1.3214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	529.93
Stddev	2.51
%RSD	.47293
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7047.9	5299.9	68519.	10445.
Stddev	24.2	6.9	175.	61.
%RSD	.34378	.13081	.25607	.58334
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.937%	107.39%	107.75%	112.84%
Range				

Sample Name: 240-82069-a-3-a Acquired: 7/12/2017 16:13:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.6791	189310.	90.864	20.711	1681.7	4.0452	36782.
Stddev	.3433	1353.	.678	.389	8.7	.1046	226.
%RSD	7.3362	.71487	.74635	1.8762	.51742	2.5856	.61334
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.532	248.87	415.53	193.83	316030.	5768.0	133.87
Stddev	.134	1.22	1.43	1.74	2469.	43.8	1.54
%RSD	1.784	.49047	.34501	.89546	.78124	.75943	1.1519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	88645.	5783.8	8.7209	3990.0	343.64	130.72	-4.153
Stddev	802.	47.5	.2046	19.7	2.63	3.60	1.731
%RSD	.90474	.82133	2.3458	.49430	.76568	2.7522	41.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-3-a Acquired: 7/12/2017 16:13:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1705	34.585	2005.5	-3.8314	797.14	890.73	1480.2
Stddev	3.1319	.695	6.8	.0722	8.97	5.41	18.3
%RSD	267.57	2.0107	.34000	1.8833	1.1253	.60775	1.2362
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	531.26
Stddev	8.37
%RSD	1.5756
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7086.5	5404.1	69446.	10588.
Stddev	26.0	28.0	147.	78.
%RSD	.36717	.51873	.21109	.73629
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.396%	109.50%	109.21%	114.39%
Range				

Sample Name: 240-82069-a-4-a Acquired: 7/12/2017 16:18:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.2203	180610.	80.409	18.604	1498.4	4.3521	27527.
Stddev	.2513	947.	1.598	.434	7.3	.1060	156.
%RSD	5.9538	.52408	1.9875	2.3339	.48620	2.4360	.56794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.950	186.22	369.01	169.70	277890.	4784.1	123.32
Stddev	.229	1.18	.91	.69	2398.	33.5	1.78
%RSD	4.619	.63186	.24738	.40952	.86301	.70022	1.4447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	79406.	4794.7	5.9386	3515.1	288.53	106.49	-2.208
Stddev	577.	72.5	.4999	30.0	2.97	3.44	1.668
%RSD	.72680	1.5119	8.4176	.85472	1.0300	3.2308	75.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-4-a Acquired: 7/12/2017 16:18:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.2824	35.469	1814.5	-2.7737	701.40	747.73	1385.0
Stddev	1.4578	.470	2.4	1.1010	4.97	6.76	16.6
%RSD	44.411	1.3238	.13367	39.695	.70873	.90473	1.1981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	465.96
Stddev	9.11
%RSD	1.9545
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7113.5	5402.8	69596.	10591.
Stddev	14.7	11.8	130.	64.
%RSD	.20665	.21920	.18659	.60341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.718%	109.47%	109.44%	114.42%
Range				

Sample Name: 240-82069-a-5-a Acquired: 7/12/2017 16:22:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.4801	154840.	73.217	17.467	1451.4	3.5034	39627.
Stddev	.1826	849.	1.467	.245	4.7	.2248	97.
%RSD	5.2472	.54829	2.0030	1.4026	.32142	6.4156	.24582
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.249	169.08	344.08	163.29	255880.	4786.0	115.60
Stddev	.087	1.12	1.76	.88	856.	45.2	.91
%RSD	1.390	.66438	.51107	.53961	.33457	.94384	.78666
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	74776.	5211.6	8.3483	3499.7	284.66	104.59	-.8529
Stddev	376.	63.2	.4898	24.5	2.22	1.13	1.772
%RSD	.50344	1.2135	5.8674	.70064	.77995	1.0792	207.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-5-a Acquired: 7/12/2017 16:22:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.7687	33.289	2066.5	-2.2756	642.32	703.44	1397.3
Stddev	3.0988	1.276	3.5	1.9645	.73	3.21	17.6
%RSD	111.92	3.8324	.17030	86.331	.11337	.45664	1.2610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	503.27
Stddev	9.63
%RSD	1.9140
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7178.4	5266.2	67453.	10279.
Stddev	11.8	3.9	239.	32.
%RSD	.16430	.07477	.35465	.30911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.491%	106.70%	106.07%	111.05%
Range				

Sample Name: 240-82069-a-6-a Acquired: 7/12/2017 16:26:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.9519	168410.	73.020	36.714	1914.5	3.8217	150620.
Stddev	.2727	670.	.927	.819	7.6	.1204	551.
%RSD	9.2368	.39756	1.2691	2.2297	.39726	3.1508	.36564
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.686	185.40	385.00	187.72	255470.	7282.5	130.11
Stddev	.146	1.99	13.97	5.37	738.	21.0	2.62
%RSD	2.179	1.0724	3.6280	2.8583	.28887	.28852	2.0170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	86707.	5238.8	9.1794	3851.1	385.59	113.18	1.377
Stddev	392.	922.1	.3808	16.4	5.03	1.61	1.386
%RSD	.45227	17.602	4.1486	.42713	1.3037	1.4204	100.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-6-a Acquired: 7/12/2017 16:26:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.8007	38.043	3699.0	-3.7841	646.72	932.46	2684.1
Stddev	2.3929	.881	24.8	1.6095	7.48	11.25	32.3
%RSD	132.88	2.3167	.66965	42.533	1.1563	1.2068	1.2030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	733.15
Stddev	4.54
%RSD	.61873
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6913.2	5065.7	64905.	10098.
Stddev	23.2	16.1	688.	24.
%RSD	.33567	.31875	1.0600	.23767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.332%	102.64%	102.07%	109.10%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 16:31:05 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	999.63	25001.	513.95	5087.4	1983.8	1907.1	49104.	503.2
Stddev	2.59	24.	3.53	18.9	5.7	13.1	150.	3.2
%RSD	.25865	.09486	.68650	.37230	.28593	.68533	.30620	.6333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2012.3	1997.9	1982.4	24757.	49782.	5005.7	49481.	2040.7
Stddev	13.5	4.4	2.5	81.	205.	20.7	187.	6.1
%RSD	.66870	.22041	.12641	.32568	.41133	.41299	.37740	.30118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1949.4	49730.	2017.0	492.66	511.7	516.37	5112.7	5019.4
Stddev	15.0	254.	13.6	3.15	3.0	3.28	30.0	12.0
%RSD	.76749	.51084	.67605	.64024	.5950	.63583	.58672	.23933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 16:31:05 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1014.7	1951.7	2042.4	5072.8	4872.6
Stddev	8.6	8.2	12.1	80.7	22.4
%RSD	.85184	.42092	.59103	1.5914	.45975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7147.8	4603.1	58913.	8890.2
Stddev	10.5	8.1	44.	32.9
%RSD	.14660	.17491	.07443	.36960

Sample Name: CCB Acquired: 7/12/2017 16:35:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.65647	13.452	1.5907	8.8283	.03087	.12784	10.094	.0477
Stddev	.38137	22.481	1.1509	1.2263	.08169	.16176	5.065	.0936
%RSD	58.094	167.12	72.354	13.890	264.66	126.54	50.177	196.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08937	.68342	1.3594	8.0810	-61.159	-.91945	3.6225	.22935
Stddev	.25092	.64099	.8680	3.3526	33.403	1.8052	12.427	.12253
%RSD	280.76	93.792	63.851	41.487	54.616	196.33	343.04	53.427
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9898	60.562	-.09953	2.1647	1.537	-.16165	.56757	2.3508
Stddev	.2163	6.923	.22273	.4863	.287	1.2732	.03451	.2630
%RSD	7.2341	11.431	223.79	22.462	18.70	787.67	6.0801	11.187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 16:35:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.18415	-1.1606	.37932	4.1973	-3.3085
Stddev	.58679	2.4469	.16850	7.7623	2.1117
%RSD	318.65	210.83	44.422	184.93	63.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8285.2	4864.5	63004.	9053.6
Stddev	13.2	3.0	12.	11.6
%RSD	.15885	.06215	.01875	.12779

Sample Name: 240-82069-a-7-a Acquired: 7/12/2017 16:39:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.3701	167650.	75.704	23.138	1755.1	3.9296	96930.
Stddev	.3114	160.	2.349	.374	5.0	.1271	275.
%RSD	9.2401	.09537	3.1029	1.6170	.28369	3.2331	.28328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.437	204.64	388.99	179.01	264690.	5482.2	115.65
Stddev	.233	1.62	2.41	.76	539.	39.2	.74
%RSD	4.293	.79190	.61953	.42360	.20357	.71527	.64020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	77926.	4567.5	7.8006	3645.2	288.75	104.51	-1.045
Stddev	387.	50.7	.3112	17.1	4.24	1.09	1.168
%RSD	.49675	1.1105	3.9891	.46943	1.4699	1.0416	111.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-7-a Acquired: 7/12/2017 16:39:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0398	34.426	2915.1	-1.5244	677.65	726.52	2721.9
Stddev	2.8572	1.384	17.8	.9739	5.79	6.77	37.2
%RSD	274.77	4.0193	.60927	63.886	.85378	.93245	1.3664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	607.67
Stddev	1.69
%RSD	.27785
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6995.0	5131.4	65904.	10102.
Stddev	10.7	4.5	207.	37.
%RSD	.15336	.08825	.31455	.36717
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.306%	103.97%	103.64%	109.14%
Range				

Sample Name: 240-82069-a-8-a Acquired: 7/12/2017 16:43:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.3395	174410.	73.291	26.501	1520.9	3.8994	97339.
Stddev	.0883	670.	1.431	.214	4.6	.1097	295.
%RSD	2.6447	.38438	1.9528	.80746	.30316	2.8142	.30282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.561	139.76	358.59	183.35	257430.	5359.4	118.78
Stddev	.184	1.40	2.08	1.21	726.	89.7	.91
%RSD	4.042	1.0033	.57929	.66046	.28200	1.6742	.76909
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	79650.	3967.6	7.0040	3575.6	298.05	94.871	-1.176
Stddev	535.	38.7	.1400	17.3	7.34	1.925	.975
%RSD	.67207	.97505	1.9985	.48321	2.4629	2.0288	82.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-8-a Acquired: 7/12/2017 16:43:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.61392	38.415	2569.3	-1.4447	681.32	703.76	1821.1
Stddev	3.6687	1.109	7.7	1.8396	2.79	2.85	8.7
%RSD	597.59	2.8858	.29967	127.34	.41021	.40515	.47818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	550.12
Stddev	13.50
%RSD	2.4535
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7010.9	5151.2	66113.	10083.
Stddev	17.2	7.7	212.	45.
%RSD	.24462	.14940	.32059	.44975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.496%	104.37%	103.96%	108.93%
Range				

Sample Name: 240-82069-a-9-a Acquired: 7/12/2017 16:48:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.8701	152630.	74.567	18.614	1384.3	3.7559	39507.
Stddev	.3913	738.	2.436	.136	7.4	.1761	177.
%RSD	10.110	.48371	3.2674	.73049	.53550	4.6876	.44693
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.600	159.32	338.88	162.09	253840.	4928.6	99.203
Stddev	.059	1.35	.79	.63	707.	64.5	1.029
%RSD	1.061	.84701	.23434	.38701	.27843	1.3078	1.0370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66683.	4378.4	7.4071	3257.3	261.15	100.90	1.164
Stddev	393.	9.9	.2379	26.9	3.34	1.74	1.805
%RSD	.58924	.22591	3.2125	.82458	1.2796	1.7217	155.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-9-a Acquired: 7/12/2017 16:48:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.91051	37.637	2069.7	-4.7273	637.29	663.35	1747.8
Stddev	4.1527	1.740	6.3	1.3490	4.94	6.18	11.6
%RSD	456.08	4.6236	.30386	28.536	.77546	.93088	.66383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	482.00
Stddev	10.37
%RSD	2.1519
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7146.5	5189.8	66348.	10056.
Stddev	20.2	9.0	128.	19.
%RSD	.28276	.17252	.19243	.18578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.110%	105.16%	104.33%	108.64%
Range				

Sample Name: 240-82069-a-10-a Acquired: 7/12/2017 16:52:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.1793	168350.	76.949	23.998	1809.4	3.8656	82352.
Stddev	.3325	171.	2.060	.508	3.7	.0862	104.
%RSD	10.459	.10165	2.6772	2.1189	.20312	2.2286	.12629
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.968	203.25	373.32	179.50	273610.	6052.7	126.27
Stddev	.158	1.63	2.71	1.27	2659.	33.8	.62
%RSD	2.651	.79978	.72689	.70859	.97174	.55829	.49423
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	89228.	5432.7	7.9022	3792.0	329.18	108.00	-2.993
Stddev	250.	78.9	.2555	16.4	5.13	2.37	1.498
%RSD	.27989	1.4519	3.2336	.43297	1.5599	2.1925	50.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-10-a Acquired: 7/12/2017 16:52:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.30040	38.008	3439.9	-4.1324	680.45	758.60	1940.5
Stddev	1.2453	1.424	19.9	1.2967	3.29	7.90	14.1
%RSD	414.54	3.7470	.57863	31.379	.48410	1.0408	.72482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	633.45
Stddev	3.47
%RSD	.54750
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6949.1	5107.6	65885.	10040.
Stddev	11.2	7.6	277.	5.
%RSD	.16162	.14879	.42071	.04719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.760%	103.49%	103.61%	108.47%
Range				

Sample Name: 240-82069-a-12-a Acquired: 7/12/2017 16:56:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.3487	141990.	66.737	18.686	1281.1	3.1919	30212.
Stddev	.1945	950.	1.670	.342	11.0	.1128	243.
%RSD	5.8092	.66893	2.5025	1.8309	.85888	3.5323	.80274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.764	136.69	318.10	146.46	230840.	4666.9	98.772
Stddev	.109	.86	2.00	1.51	1553.	47.5	2.847
%RSD	1.884	.62596	.62953	1.0339	.67295	1.0182	2.8820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66822.	3931.3	6.5268	3204.0	232.96	86.413	-2.022
Stddev	632.	30.1	.2175	40.0	1.15	.694	3.632
%RSD	.94653	.76687	3.3328	1.2473	.49425	.80288	179.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-12-a Acquired: 7/12/2017 16:56:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.4450	36.050	1617.8	-.90727	604.99	621.23	1512.8
Stddev	2.7224	.254	14.4	1.3036	8.86	4.08	13.1
%RSD	111.34	.70351	.88983	143.68	1.4644	.65720	.86287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	406.24
Stddev	9.64
%RSD	2.3730
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7217.9	5173.1	66394.	10018.
Stddev	6.1	6.3	385.	39.
%RSD	.08388	.12261	.58040	.39022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.961%	104.82%	104.41%	108.23%
Range				

Sample Name: 240-82069-a-13-a Acquired: 7/12/2017 17:00:56 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.4938	152100.	70.884	16.950	1469.8	3.6180	37095.
Stddev	.2047	663.	1.968	1.042	4.3	.0917	156.
%RSD	5.8587	.43564	2.7767	6.1482	.28958	2.5345	.42102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.089	163.19	322.64	152.84	246610.	4302.2	100.40
Stddev	.269	3.48	1.94	1.29	697.	29.0	.54
%RSD	4.410	2.1345	.60035	.84434	.28252	.67360	.53505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	70991.	4868.8	6.5941	3178.3	271.57	97.808	-1.871
Stddev	318.	37.6	.1689	13.2	5.46	2.023	2.615
%RSD	.44829	.77252	2.5614	.41451	2.0110	2.0686	139.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-13-a Acquired: 7/12/2017 17:00:56 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.6728	37.004	1897.3	-3.8729	603.78	650.89	1589.7
Stddev	2.2072	1.160	7.7	1.2828	1.51	8.33	9.7
%RSD	60.096	3.1334	.40568	33.123	.24963	1.2798	.61039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	472.30
Stddev	7.04
%RSD	1.4900
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7105.9	5284.4	68149.	10323.
Stddev	5.4	17.4	259.	35.
%RSD	.07565	.32964	.38024	.34348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.627%	107.07%	107.17%	111.53%
Range				

Sample Name: 240-82069-a-14-a Acquired: 7/12/2017 17:05:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.0089	158910.	63.814	16.409	1426.0	3.8761	35892.
Stddev	.2455	594.	1.221	.736	6.4	.0338	113.
%RSD	8.1609	.37351	1.9127	4.4830	.44786	.87266	.31466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.230	176.00	334.30	157.17	241200.	4503.5	104.12
Stddev	.152	1.52	1.19	.72	771.	16.0	.57
%RSD	3.592	.86344	.35485	.45889	.31950	.35506	.55177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	70905.	4034.9	5.1660	3383.1	255.46	86.872	-.2867
Stddev	218.	55.8	.1667	20.9	3.33	2.162	3.265
%RSD	.30793	1.3819	3.2267	.61644	1.3052	2.4891	1139.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-14-a Acquired: 7/12/2017 17:05:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.3091	34.440	1940.4	-1.3612	626.69	657.46	1390.8
Stddev	.9656	.986	5.0	.8788	3.94	4.58	17.6
%RSD	22.408	2.8634	.25912	64.561	.62871	.69722	1.2671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	460.73
Stddev	3.42
%RSD	.74306
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7218.1	5261.3	67663.	10247.
Stddev	18.8	11.7	218.	29.
%RSD	.26024	.22297	.32164	.28029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.963%	106.61%	106.40%	110.71%
Range				

Sample Name: 240-82069-a-15-a Acquired: 7/12/2017 17:09:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.2589	198600.	85.327	21.493	1769.2	4.5549	53768.
Stddev	.3801	382.	2.990	.613	2.1	.1916	157.
%RSD	8.9254	.19212	3.5041	2.8543	.12029	4.2056	.29172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.002	293.53	390.80	184.48	297790.	5773.2	137.97
Stddev	.067	2.66	1.06	.49	2628.	18.3	1.07
%RSD	.8405	.90775	.27012	.26476	.88250	.31778	.77327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	84388.	6646.9	8.9393	4022.7	355.24	121.92	-.0100
Stddev	330.	18.7	.0413	16.7	4.83	2.09	1.859
%RSD	.39076	.28153	.46169	.41431	1.3604	1.7114	18570.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-15-a Acquired: 7/12/2017 17:09:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-5.2703	34.917	2500.8	-1.8902	757.39	818.23	1628.6
Stddev	2.6377	.907	3.9	2.5724	6.49	6.54	31.2
%RSD	50.048	2.5972	.15416	136.09	.85652	.79929	1.9148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	580.05
Stddev	6.63
%RSD	1.1431
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7035.9	5275.7	67842.	10330.
Stddev	6.3	9.9	82.	14.
%RSD	.08884	.18730	.12086	.13706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.793%	106.90%	106.68%	111.61%
Range				

Sample Name: 240-82069-a-16-a Acquired: 7/12/2017 17:13:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.3731	173950.	83.217	15.885	1735.4	4.5085	35119.
Stddev	.0563	910.	1.432	.316	3.6	.0352	113.
%RSD	1.2877	.52299	1.7203	1.9901	.20829	.78028	.32243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.507	164.53	392.95	187.20	299070.	4870.7	122.19
Stddev	.367	1.67	1.74	.09	693.	55.1	1.17
%RSD	8.145	1.0134	.44310	.04770	.23166	1.1312	.95996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	91859.	4818.2	7.5745	3914.8	296.45	102.73	-.5455
Stddev	254.	32.6	.3407	1.6	3.84	.82	2.239
%RSD	.27665	.67609	4.4984	.04075	1.2963	.79476	410.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-16-a Acquired: 7/12/2017 17:13:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9110	38.600	1395.3	-4.7479	765.46	851.59	1629.9
Stddev	6.4435	.956	6.8	1.1949	5.33	9.44	25.7
%RSD	337.19	2.4766	.48663	25.168	.69659	1.1086	1.5746
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	563.16
Stddev	6.25
%RSD	1.1100
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7036.8	5355.3	68889.	10468.
Stddev	20.1	19.2	180.	28.
%RSD	.28623	.35891	.26065	.26973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.805%	108.51%	108.33%	113.09%
Range				

Sample Name: 240-82069-a-17-a Acquired: 7/12/2017 17:18:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.2385	148090.	72.774	12.451	1777.9	3.6347	29428.
Stddev	.2198	264.	.662	.509	6.4	.0733	93.
%RSD	5.1848	.17829	.90996	4.0867	.36145	2.0155	.31561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.007	196.77	352.75	165.12	261460.	4599.1	107.60
Stddev	.182	.57	13.77	4.65	488.	56.2	.90
%RSD	3.033	.29113	3.9039	2.8178	.18660	1.2223	.83655
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78816.	5879.4	6.7470	3368.4	281.51	106.89	-1.748
Stddev	156.	959.0	.1654	12.6	2.69	1.40	1.953
%RSD	.19845	16.311	2.4518	.37327	.95475	1.3053	111.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-17-a Acquired: 7/12/2017 17:18:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.1005	39.273	1347.2	-3.6777	680.70	743.62	1477.8
Stddev	2.3340	.895	11.2	1.9356	8.03	5.78	8.7
%RSD	56.918	2.2801	.83200	52.631	1.1800	.77684	.58915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	474.90
Stddev	9.52
%RSD	2.0039
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7118.0	5355.2	68195.	10352.
Stddev	5.9	4.6	507.	21.
%RSD	.08311	.08652	.74336	.20200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.772%	108.51%	107.24%	111.84%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 17:22:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	989.71	24653.	509.05	5039.7	1964.0	1890.4	48571.	499.3
Stddev	2.90	82.	3.51	11.4	6.7	5.3	198.	2.0
%RSD	.29280	.33351	.68995	.22585	.33977	.27995	.40670	.3937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1999.3	1968.5	1960.2	24382.	49200.	4923.6	48763.	2006.7
Stddev	1.9	6.6	5.9	104.	254.	18.6	255.	9.7
%RSD	.09703	.33577	.30107	.42771	.51669	.37687	.52315	.48270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1927.4	49207.	2002.6	484.98	504.0	508.23	5075.8	4933.0
Stddev	7.3	269.	4.1	3.55	.8	1.22	15.3	42.6
%RSD	.37652	.54736	.20684	.73179	.1680	.24063	.30054	.86285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 17:22:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1007.1	1922.9	2027.8	4988.9	4814.1
Stddev	3.3	9.6	5.7	84.7	26.8
%RSD	.32529	.50166	.28235	1.6970	.55635
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7162.3	4625.5	59259.	8884.6
Stddev	12.7	3.5	139.	27.5
%RSD	.17721	.07651	.23485	.30984

Sample Name: CCB Acquired: 7/12/2017 17:26:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10195	7.8550	.22469	7.0017	.10522	.17196	-8.4159	.0449
Stddev	.37741	16.327	1.3112	.4313	.01727	.13068	2.0973	.0765
%RSD	370.19	207.86	583.58	6.1593	16.415	75.992	24.920	170.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31099	.31068	.60678	8.7001	-66.138	-.84992	-16.785	.09773
Stddev	.14727	.21351	.21686	1.5400	21.207	1.8752	13.984	.07884
%RSD	47.354	68.724	35.739	17.702	32.065	220.63	83.314	80.675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7300	29.040	.29190	.69291	1.169	1.7775	.71203	2.1109
Stddev	.2782	2.276	.44704	1.4844	1.421	1.1757	.64967	.2110
%RSD	10.192	7.8364	153.15	214.23	121.5	66.141	91.243	9.9966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 17:26:33 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.52044	-3.4540	-.01174	-1.4401	3.4814
Stddev	.47972	1.6062	.02899	7.2516	2.6674
%RSD	92.175	46.502	247.03	503.55	76.621
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8277.5	4856.8	63046.	8984.8
Stddev	9.7	13.3	107.	37.3
%RSD	.11672	.27393	.17017	.41550

Sample Name: 240-82069-a-18-b Acquired: 7/12/2017 17:30:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.8260	134810.	70.464	21.021	1251.9	3.3572	43431.
Stddev	.0366	387.	2.283	.819	4.7	.0937	173.
%RSD	1.2948	.28697	3.2404	3.8944	.37504	2.7916	.39734
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.858	127.23	311.32	149.30	236750.	4751.2	99.850
Stddev	.169	.98	1.94	.47	987.	10.6	1.341
%RSD	3.481	.76924	.62368	.31570	.41707	.22216	1.3435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65620.	3175.8	7.8031	3154.9	217.89	80.366	-1.562
Stddev	199.	28.0	.1843	3.6	.80	.744	2.024
%RSD	.30355	.88319	2.3623	.11374	.36650	.92537	129.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-18-b Acquired: 7/12/2017 17:30:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2304	38.693	1901.7	-4.0408	617.79	621.11	1814.1
Stddev	1.7499	.457	10.3	.4777	1.30	6.00	10.1
%RSD	142.23	1.1808	.54019	11.822	.21100	.96579	.55553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	427.50
Stddev	3.46
%RSD	.80950
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7159.3	5110.7	65804.	9848.4
Stddev	16.2	8.7	204.	52.7
%RSD	.22682	.17077	.30933	.53479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.264%	103.55%	103.48%	106.40%
Range				

Sample Name: 240-82069-a-19-b Acquired: 7/12/2017 17:35:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.1782	158540.	73.468	17.000	1338.2	3.8012	25061.
Stddev	.4537	400.	1.934	.276	4.1	.1942	87.
%RSD	14.274	.25224	2.6322	1.6253	.30925	5.1078	.34773
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.818	126.45	339.18	160.44	267450.	4757.1	113.65
Stddev	.021	.71	1.67	.64	1473.	26.8	.29
%RSD	.5519	.56299	.49110	.39588	.55078	.56438	.25709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	75304.	3212.8	6.5768	3211.7	227.09	90.988	-2.461
Stddev	342.	24.2	.2745	8.1	2.18	1.221	.647
%RSD	.45461	.75175	4.1740	.25179	.95851	1.3417	26.31
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-19-b Acquired: 7/12/2017 17:35:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.69985	34.945	1120.2	-3.8135	675.07	702.52	1561.6
Stddev	1.2464	.452	3.4	.7683	6.46	4.32	17.5
%RSD	178.10	1.2925	.30652	20.146	.95684	.61507	1.1198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	417.01
Stddev	3.78
%RSD	.90573
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7189.2	5300.2	68117.	10254.
Stddev	11.8	10.1	57.	30.
%RSD	.16415	.19139	.08302	.28827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.619%	107.39%	107.12%	110.79%
Range				

Sample Name: 240-82069-a-20-b Acquired: 7/12/2017 17:39:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.5404	140020.	63.402	16.361	1345.9	3.5255	28898.
Stddev	.2986	177.	2.587	.502	2.9	.0408	72.
%RSD	8.4340	.12616	4.0805	3.0695	.21281	1.1569	.24836
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.230	156.26	297.89	138.62	223900.	3961.8	92.327
Stddev	.174	1.49	1.91	.82	692.	31.5	1.152
%RSD	3.320	.95394	.64060	.58925	.30907	.79622	1.2474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65250.	4307.7	5.8245	2966.9	255.81	82.040	-1.743
Stddev	150.	57.5	.2755	8.0	4.41	1.886	1.792
%RSD	.22926	1.3339	4.7304	.27001	1.7231	2.2991	102.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-20-b Acquired: 7/12/2017 17:39:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.76261	39.025	1477.9	-2.9246	571.68	586.64	1826.4
Stddev	.03311	1.130	8.9	2.2802	.76	3.81	17.9
%RSD	4.3423	2.8966	.60101	77.967	.13339	.64864	.97848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	424.22
Stddev	2.67
%RSD	.62822
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7182.2	5231.0	67047.	10092.
Stddev	13.1	11.4	385.	20.
%RSD	.18237	.21810	.57399	.19878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.536%	105.99%	105.43%	109.03%
Range				

Sample Name: mb 240-286712/1-a Acquired: 7/12/2017 17:43:58 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40938	27.799	.39249	3.8611	.93912	.02822	154.16	.1822
Stddev	.18425	27.548	.58281	.1879	.12970	.09847	5.03	.0850
%RSD	45.007	99.100	148.49	4.8674	13.811	348.97	3.2653	46.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.24013	.70204	2.5015	46.406	-80.587	-.80547	79.232	-.00771
Stddev	.14662	.08438	.8460	12.337	24.476	.74648	16.565	.06008
%RSD	61.060	12.020	33.819	26.585	30.372	92.675	20.907	779.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17917	91.155	.89866	.27760	.5082	-1.4356	31.030	1.4587
Stddev	.12242	.969	.43008	1.7751	1.330	2.2995	.931	.1782
%RSD	68.329	1.0631	47.858	639.44	261.8	160.18	2.9988	12.214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286712/1-a Acquired: 7/12/2017 17:43:58 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-2.2308	-1.6023	.62398	41.293	1.0755
Stddev	.2935	4.5678	.21585	4.353	6.7014
%RSD	13.157	285.08	34.592	10.541	623.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8095.7	4807.0	62995.	9014.0
Stddev	11.7	5.6	228.	25.3
%RSD	.14437	.11700	.36208	.28034

Sample Name: lcs 240-286712/2-a Acquired: 7/12/2017 17:48:22 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.379	1969.3	2002.2	976.26	1930.4	47.863	48686.	49.53
Stddev	.590	31.9	16.7	4.41	6.7	.145	157.	.52
%RSD	1.1953	1.6203	.83301	.45208	.34839	.30194	.32158	1.042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	484.66	196.83	254.19	987.40	48430.	967.17	48451.	493.36
Stddev	3.83	1.67	.35	6.29	171.	4.09	254.	3.21
%RSD	.79120	.85027	.13762	.63681	.35260	.42250	.52523	.65078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	946.94	48559.	493.03	475.81	490.6	1962.3	1983.1	975.11
Stddev	9.19	167.	4.18	2.44	7.6	14.2	19.4	1.74
%RSD	.97077	.34334	.84851	.51327	1.552	.72140	.97671	.17832
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286712/2-a Acquired: 7/12/2017 17:48:22 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1889.1	480.07	496.75	1062.9	975.22
Stddev	15.0	6.45	4.61	5.2	8.14
%RSD	.79515	1.3446	.92708	.48554	.83489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7260.1	4584.0	59196.	8786.5
Stddev	20.0	17.8	161.	37.4
%RSD	.27504	.38833	.27160	.42551

Sample Name: 240-82098-ad-7-a Acquired: 7/12/2017 17:52:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.58648	43612.	37.013	75.156	1843.2	3.0312
Stddev	.52612	187.	2.445	.049	6.6	.2364
%RSD	89.709	.42876	6.6049	.06467	.35775	7.8005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 875320.	1.233	33.555	68.057	138.94	64910.
Stddev	2202.	.188	.906	.432	.43	204.
%RSD	.25150	15.24	2.7000	.63447	.30760	.31424
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9908.4	103.81	414360.	1843.9	30.991	6036.4
Stddev	72.2	.83	2409.	1.6	.744	26.4
%RSD	.72887	.80089	.58135	.08631	2.4023	.43816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-82098-ad-7-a Acquired: 7/12/2017 17:52:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	103.33	48.731	6.424	1.7977	30.203	598.60
Stddev	2.14	3.228	2.365	2.6977	.788	2.04
%RSD	2.0686	6.6244	36.81	150.06	2.6074	.34158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.7584	95.336	230.08	1963.6	752.57
Stddev	1.6244	3.222	4.72	31.9	11.46
%RSD	92.379	3.3797	2.0505	1.6257	1.5233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6081.3	4308.1	55981.	8843.6
Stddev	4.9	11.5	64.	23.5
%RSD	.08116	.26593	.11358	.26518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.425%	87.292%	88.032%	95.543%
Range				

Sample Name: SD 240-82098-ad-7a@5 Acquired: 7/12/2017 17:56:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.18875	8982.0	5.0186	15.806	380.10	.73787	190480.
Stddev	.19721	77.0	3.7367	.413	3.01	.13312	1159.
%RSD	104.48	.85673	74.456	2.6102	.79063	18.041	.60827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3211	7.0426	15.385	29.402	13960.	1935.0	18.870
Stddev	.2587	.1957	.395	.472	103.	2.1	1.330
%RSD	80.54	2.7789	2.5651	1.6065	.73723	.10747	7.0487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	85196.	393.27	6.3500	1258.0	21.474	10.332	1.984
Stddev	491.	1.27	.1624	6.1	.329	.090	1.182
%RSD	.57635	.32421	2.5571	.48122	1.5340	.86656	59.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SD 240-82098-ad-7a@5 Acquired: 7/12/2017 17:56:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.6777	6.7813	124.42	-.67259	19.451	45.050	415.65
Stddev	2.9934	.3828	.70	.02436	.501	.343	13.56
%RSD	178.42	5.6449	.56143	3.6218	2.5762	.76117	3.2632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	162.70
Stddev	.33
%RSD	.20102
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7177.2	4605.8	59340.	8895.8
Stddev	12.7	7.0	160.	55.0
%RSD	.17705	.15097	.26989	.61879
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.477%	93.323%	93.313%	96.107%
Range				

Sample Name: PDS 240-82098-ad-7-a Acquired: 7/12/2017 18:00:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.801	45063.	2149.8	1105.4	3796.1	48.284
Stddev	.603	243.	21.7	11.2	7.1	.182
%RSD	1.1416	.53988	1.0089	1.0087	.18602	.37771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 898360.	53.22	559.88	257.09	388.62	65072.
Stddev	3223.	.64	5.01	1.11	.52	64.
%RSD	.35878	1.197	.89533	.43107	.13328	.09892
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	61702.	1147.4	W 454300.	2294.1	972.95	57626.
Stddev	147.	2.1	533.	9.9	13.04	126.
%RSD	.23825	.18729	.11723	.43117	1.3400	.21929
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			450000.			
Low Limit			-500000.			

Sample Name: PDS 240-82098-ad-7-a Acquired: 7/12/2017 18:00:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	623.83	496.46	509.1	2069.4	2162.2	1558.9
Stddev	6.84	4.51	8.0	22.8	24.1	.9
%RSD	1.0972	.90759	1.568	1.1037	1.1157	.05950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1956.4	567.04	749.39	2972.7	1640.0
Stddev	20.9	1.96	6.98	16.0	2.3
%RSD	1.0670	.34583	.93195	.53858	.14308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5935.2	4255.0	55309.	8761.0
Stddev	22.5	15.2	110.	13.4
%RSD	.37847	.35692	.19913	.15255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.685%	86.215%	86.976%	94.650%
Range				

Sample Name: 240-82098-ad-7-b ms Acquired: 7/12/2017 18:05:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	50.840	72822.	2040.0	1049.0	4100.9	47.583
Stddev	.473	232.	9.0	4.9	17.3	.420
%RSD	.93041	.31856	.44168	.47154	.42193	.88296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1036200.	50.66	535.51	274.13	408.23	81555.
Stddev	9360.	.14	4.83	1.26	2.58	368.
%RSD	.90327	.2839	.90239	.46079	.63125	.45150
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	63829.	1117.7	F 514870.	2530.5	907.28	56094.
Stddev	264.	6.0	1537.	4.4	8.04	227.
%RSD	.41294	.53840	.29860	.17277	.88627	.40416
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-ad-7-b ms Acquired: 7/12/2017 18:05:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	642.34	469.34	255.0	1936.3	1939.8	1850.6
Stddev	4.54	4.39	2.1	15.4	11.7	2.7
%RSD	.70725	.93543	.8290	.79590	.60447	.14528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1825.0	583.92	801.76	5991.2	1801.9
Stddev	10.6	6.63	4.72	83.0	6.8
%RSD	.57863	1.1349	.58915	1.3855	.37887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5771.9	4203.7	54409.	8661.0
Stddev	9.3	2.7	120.	21.2
%RSD	.16103	.06482	.22103	.24441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.740%	85.176%	85.559%	93.571%
Range				

Sample Name: 240-82098-ad-7-c msd Acquired: 7/12/2017 18:09:08 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	49.228	71765.	1978.6	1008.2	3914.8	46.114
Stddev	.162	381.	9.0	2.2	17.0	.370
%RSD	.32985	.53034	.45566	.22315	.43477	.80160
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1013700.	48.62	522.10	264.95	392.87	82635.
Stddev	1964.	.31	2.40	1.13	2.71	445.
%RSD	.19370	.6307	.45949	.42570	.68861	.53845
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	62289.	1079.2	F 504760.	2566.6	874.40	54304.
Stddev	182.	4.2	1537.	11.8	4.57	254.
%RSD	.29262	.38794	.30454	.46032	.52217	.46687
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-ad-7-c msd Acquired: 7/12/2017 18:09:08 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	604.25	453.76	225.2	1878.2	1870.7	1767.1
Stddev	3.20	3.48	1.5	5.8	8.3	9.1
%RSD	.52986	.76748	.6570	.30781	.44407	.51404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1764.1	564.66	779.80	4595.8	1726.3
Stddev	13.1	4.31	3.19	79.6	10.3
%RSD	.74509	.76295	.40873	1.7324	.59386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5831.3	4243.2	55119.	8711.9
Stddev	7.2	5.7	114.	34.4
%RSD	.12364	.13388	.20714	.39523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.447%	85.977%	86.676%	94.121%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 18:13:13 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	989.83	24540.	507.89	5051.5	1969.1	1912.5	48693.	499.1
Stddev	1.73	237.	4.56	19.5	18.4	29.4	469.	2.0
%RSD	.17506	.96564	.89839	.38580	.93555	1.5362	.96364	.3976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1999.4	1972.1	1959.6	24299.	49246.	4915.4	48855.	2000.7
Stddev	7.9	2.9	1.5	142.	564.	48.5	568.	5.6
%RSD	.39407	.14706	.07821	.58254	1.1454	.98669	1.1632	.27915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1928.6	49465.	2001.7	486.30	508.3	513.05	5059.7	4947.2
Stddev	12.7	556.	9.3	1.62	7.1	3.17	26.5	25.8
%RSD	.66035	1.1235	.46409	.33327	1.403	.61722	.52455	.52171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 18:13:13 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1000.8	1925.4	2023.5	4964.1	4823.6
Stddev	6.3	19.6	6.2	63.8	58.3
%RSD	.63224	1.0178	.30437	1.2847	1.2078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7149.2	4618.1	59187.	8788.6
Stddev	16.0	16.4	100.	48.4
%RSD	.22395	.35501	.16890	.55063

Sample Name: CCB Acquired: 7/12/2017 18:17:14 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04833	.75390	2.6725	8.5134	-.06275	.02247	-9.0313	-.0529
Stddev	.31137	17.991	1.4684	.8111	.11123	.13877	4.8138	.0401
%RSD	644.30	2386.4	54.945	9.5269	177.26	617.54	53.301	75.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10128	.37914	1.3570	2.1880	-73.175	-1.4530	-1.3252	-.13906
Stddev	.14329	.10401	.5194	2.4133	12.391	1.6184	17.646	.06992
%RSD	141.49	27.434	38.278	110.30	16.934	111.38	1331.6	50.283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.1077	57.823	-.18123	1.1050	1.491	.56908	.82682	2.2526
Stddev	.3062	9.434	.17272	.2176	1.222	1.9847	.10611	.4108
%RSD	9.8544	16.316	95.309	19.692	81.91	348.76	12.833	18.237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 18:17:14 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.01288	-.08284	-.29764	-6.4017	-5.8042
Stddev	.44278	1.8370	.03856	6.8200	3.4874
%RSD	3439.0	2217.7	12.955	106.53	60.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8247.6	4844.1	62575.	8938.8
Stddev	13.3	7.0	66.	33.9
%RSD	.16151	.14550	.10571	.37911

Sample Name: 240-82098-k-1-a Acquired: 7/12/2017 18:21:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.48130	59239.	41.028	107.72	2478.3	3.7042
Stddev	.32910	168.	3.877	.85	4.8	.0952
%RSD	68.379	.28404	9.4499	.79076	.19527	2.5699
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1102300.	1.346	37.385	85.509	188.07	75341.
Stddev	9403.	.034	1.079	.768	1.98	134.
%RSD	.85307	2.560	2.8869	.89865	1.0543	.17825
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13248.	127.13	F 538160.	2017.1	36.002	7997.8
Stddev	45.	3.13	2004.	6.7	.813	28.8
%RSD	.33591	2.4617	.37232	.33087	2.2576	.36052
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-k-1-a Acquired: 7/12/2017 18:21:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	119.25	54.668	8.636	-1.8274	35.198	836.82
Stddev	3.11	1.803	2.614	4.1163	2.081	2.11
%RSD	2.6094	3.2979	30.27	225.25	5.9123	.25248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.0989	121.64	284.32	2830.9	812.40
Stddev	1.0087	2.66	6.06	42.4	4.71
%RSD	91.796	2.1845	2.1300	1.4968	.58013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5813.7	4193.1	54686.	8644.1
Stddev	7.0	5.6	97.	28.5
%RSD	.12017	.13337	.17799	.32943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.238%	84.961%	85.995%	93.388%
Range				

Sample Name: 240-82098-l-3-a Acquired: 7/12/2017 18:25:57 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.34887	27051.	20.889	73.482	577.91	2.4733
Stddev	.37839	35.	3.160	.807	.08	.1721
%RSD	108.46	.13049	15.127	1.0988	.01448	6.9581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 844020.	1.466	21.712	56.659	52.117	41599.
Stddev	2527.	.140	.106	.245	2.072	40.
%RSD	.29945	9.579	.49009	.43300	3.9758	.09680
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7564.2	69.537	258770.	1585.3	21.187	5542.6
Stddev	45.6	1.016	151.	4.9	.039	18.4
%RSD	.60254	1.4617	.05845	.30706	.18206	.33274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-82098-I-3-a Acquired: 7/12/2017 18:25:57 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	74.879	45.241	6.745	.70360	30.880	351.29
Stddev	.393	3.037	1.312	2.1662	.881	1.17
%RSD	.52445	6.7125	19.45	307.87	2.8520	.33438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.37041	54.845	236.38	1895.1	8029.2
Stddev	1.5733	2.893	2.51	11.3	9.2
%RSD	424.75	5.2754	1.0600	.59365	.11431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6134.9	4290.1	55961.	8779.5
Stddev	17.3	6.9	244.	34.1
%RSD	.28250	.16143	.43514	.38851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.064%	86.925%	88.001%	94.851%
Range				

Sample Name: 240-82098-k-5-a Acquired: 7/12/2017 18:30:19 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08631	76054.	57.156	128.86	1807.5	4.7969
Stddev	.33105	216.	1.209	.43	4.3	.1053
%RSD	383.55	.28419	2.1152	.33663	.23538	2.1956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 944360.	1.567	56.195	116.07	161.82	123820.
Stddev	2696.	.076	.425	.33	1.47	576.
%RSD	.28548	4.843	.75579	.28345	.91012	.46489
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18470.	159.96	385130.	2395.3	41.392	4671.3
Stddev	32.	1.22	508.	8.8	.350	6.6
%RSD	.17226	.76552	.13180	.36948	.84509	.14188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-82098-k-5-a Acquired: 7/12/2017 18:30:19 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	177.54	71.046	8.024	-1.4211	33.575	929.96
Stddev	2.15	.595	1.366	2.4807	.156	3.12
%RSD	1.2086	.83722	17.02	174.56	.46515	.33504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.5902	159.81	390.33	2263.2	2983.8
Stddev	2.3350	1.30	3.76	26.6	43.5
%RSD	146.84	.81198	.96219	1.1745	1.4592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6011.0	4376.0	56709.	8992.3
Stddev	11.3	10.8	178.	26.6
%RSD	.18738	.24684	.31458	.29556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	71.588%	88.668%	89.176%	97.150%
Range				

Sample Name: 240-82098-k-9-a Acquired: 7/12/2017 18:34:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.23450	25973.	21.022	64.387	363.12	2.3556	678770.
Stddev	.37242	113.	1.176	.205	1.22	.0382	7119.
%RSD	158.81	.43410	5.5944	.31851	.33649	1.6216	1.0489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.7851	21.552	53.475	55.836	38509.	7205.8	58.192
Stddev	.0663	.227	.492	1.472	90.	37.4	.249
%RSD	8.447	1.0536	.92072	2.6364	.23348	.51845	.42867
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	203770.	1339.4	21.141	6110.4	70.650	41.747	6.490
Stddev	533.	7.3	.463	33.6	.949	1.163	2.324
%RSD	.26141	.54211	2.1883	.55008	1.3435	2.7853	35.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82098-k-9-a Acquired: 7/12/2017 18:34:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2373	31.773	317.12	.92693	49.391	130.61	1807.0
Stddev	2.1229	.932	.91	1.5527	1.125	.41	7.0
%RSD	94.888	2.9326	.28654	167.51	2.2769	.31092	.38584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	697.28
Stddev	5.43
%RSD	.77889
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6343.9	4380.1	57115.	8871.3
Stddev	25.2	17.4	275.	17.7
%RSD	.39732	.39673	.48145	.19971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.553%	88.749%	89.815%	95.842%
Range				

Sample Name: 240-82098-l-11-a Acquired: 7/12/2017 18:39:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.95977	48213.	36.709	112.86	715.68	4.1727
Stddev	.06477	186.	3.857	1.38	1.41	.0863
%RSD	6.7486	.38538	10.508	1.2211	.19680	2.0692
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1265100.	1.292	36.236	95.866	93.037	68013.
Stddev	8282.	.244	.822	.590	1.047	164.
%RSD	.65461	18.89	2.2687	.61595	1.1258	.24055
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12829.	115.34	389550.	2576.2	34.756	11399.
Stddev	61.	.56	2136.	19.1	.654	43.
%RSD	.47445	.48222	.54823	.74310	1.8812	.37672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-82098-l-11-a Acquired: 7/12/2017 18:39:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	125.70	70.672	7.601	-2.9728	35.976	557.74
Stddev	1.20	1.404	.580	1.9150	1.175	4.95
%RSD	.95431	1.9862	7.636	64.416	3.2658	.88751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.22902	95.993	251.32	2455.9	1130.5
Stddev	1.8637	4.096	3.43	15.3	6.5
%RSD	813.79	4.2671	1.3643	.62263	.57406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5830.8	4266.1	55285.	8821.0
Stddev	22.7	15.8	398.	18.3
%RSD	.38885	.37027	.71936	.20779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.442%	86.441%	86.937%	95.299%
Range				

Sample Name: 240-82098-k-13-a Acquired: 7/12/2017 18:43:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.22886	52858.	39.608	110.75	2147.0	3.2656
Stddev	.39833	367.	1.092	1.02	11.5	.1716
%RSD	174.05	.69360	2.7580	.92414	.53452	5.2536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1115200.	2.507	34.505	85.277	100.78	75054.
Stddev	5623.	.140	.344	.232	1.00	469.
%RSD	.50417	5.597	.99777	.27217	.99511	.62548
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13578.	125.05	F 592790.	1870.5	32.025	4354.1
Stddev	129.	1.20	5099.	1.0	.384	22.4
%RSD	.94976	.96263	.86020	.05273	1.1990	.51538
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-k-13-a Acquired: 7/12/2017 18:43:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	116.72	63.554	9.533	-1.3723	30.880	650.79
Stddev	1.41	2.067	1.827	1.1589	1.185	1.35
%RSD	1.2114	3.2518	19.16	84.450	3.8363	.20669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.57943	114.31	522.58	2414.7	25834.
Stddev	1.4410	2.86	10.67	21.9	232.
%RSD	248.70	2.4982	2.0428	.90879	.89637
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5816.4	4186.4	54530.	8704.2
Stddev	15.1	5.1	17.	50.6
%RSD	.25950	.12267	.03130	.58102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.270%	84.825%	85.749%	94.037%
Range				

Sample Name: 240-82098-k-15-a Acquired: 7/12/2017 18:47:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.48374	37822.	31.992	65.043	1358.7	2.7600	671040.
Stddev	.17714	204.	.374	.317	3.6	.0792	4655.
%RSD	36.619	.54064	1.1688	.48772	.26578	2.8712	.69376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.205	36.004	62.395	111.87	61567.	8714.8	85.169
Stddev	.185	.675	.603	.51	206.	44.6	1.636
%RSD	15.31	1.8754	.96689	.45800	.33409	.51211	1.9214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	291660.	1752.7	25.709	5644.8	96.805	50.434	6.506
Stddev	829.	4.9	.564	11.6	2.150	1.140	1.290
%RSD	.28412	.27778	2.1924	.20501	2.2207	2.2607	19.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82098-k-15-a Acquired: 7/12/2017 18:47:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.98285	32.286	613.65	1.7369	83.580	222.35	2312.4
Stddev	1.4179	1.385	1.97	1.0302	1.673	5.00	31.1
%RSD	144.26	4.2911	.32160	59.311	2.0010	2.2464	1.3438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1250.6
Stddev	4.7
%RSD	.37477
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6248.1	4356.5	56364.	8843.1
Stddev	16.1	9.2	102.	8.4
%RSD	.25750	.21131	.18135	.09547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.411%	88.271%	88.634%	95.538%
Range				

Sample Name: 240-82098-I-17-a Acquired: 7/12/2017 18:52:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.37092	40727.	28.124	84.227	372.25	2.9627	717250.
Stddev	.36718	78.	1.568	.790	.56	.0807	4797.
%RSD	98.991	.19204	5.5754	.93853	.14969	2.7238	.66882
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.324	32.149	74.619	65.233	61723.	10803.	86.561
Stddev	.111	.514	.371	.519	157.	55.	.473
%RSD	8.415	1.6002	.49724	.79558	.25400	.50869	.54630
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	213770.	1775.7	24.424	5263.1	101.07	50.007	5.388
Stddev	281.	1.5	.412	8.8	1.85	1.042	1.254
%RSD	.13132	.08469	1.6883	.16696	1.8343	2.0827	23.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82098-I-17-a Acquired: 7/12/2017 18:52:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.2531	30.585	526.62	.10122	83.293	252.28	2096.0
Stddev	.7508	.073	.40	.76936	2.656	2.36	6.1
%RSD	23.081	.23777	.07587	760.09	3.1886	.93470	.29039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	911.11
Stddev	9.13
%RSD	1.0025
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6286.9	4417.7	57262.	8976.5
Stddev	1.0	3.8	75.	24.4
%RSD	.01651	.08581	.13033	.27142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.873%	89.512%	90.045%	96.979%
Range				

Sample Name: 240-82098-k-19-a Acquired: 7/12/2017 18:56:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12444	57496.	42.260	150.02	1371.7	3.2631
Stddev	.30005	380.	3.124	.97	3.1	.1613
%RSD	241.12	.66046	7.3933	.64341	.22632	4.9419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1501000.	1.516	39.551	99.690	96.061	70505.
Stddev	7652.	.063	.468	.987	1.963	158.
%RSD	.50981	4.184	1.1843	.99031	2.0436	.22439
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17694.	134.01	F 654680.	2729.6	39.512	3603.6
Stddev	69.	1.31	2392.	27.5	.211	16.3
%RSD	.38730	.98049	.36542	1.0072	.53305	.45156
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-k-19-a Acquired: 7/12/2017 18:56:25 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	122.41	71.858	10.93	-2.1883	31.400	710.14
Stddev	.13	.794	.74	3.7366	.391	5.64
%RSD	.10368	1.1048	6.741	170.75	1.2465	.79439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.21074	135.18	327.64	2748.1	32320.
Stddev	2.1697	3.06	2.83	38.2	108.
%RSD	1029.6	2.2644	.86438	1.3889	.33473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5603.4	4077.8	53255.	8601.9
Stddev	4.9	9.4	247.	8.5
%RSD	.08752	.23164	.46365	.09921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.733%	82.625%	83.745%	92.931%
Range				

Sample Name: 240-82098-k-21-a Acquired: 7/12/2017 19:00:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.52079	30224.	32.492	88.136	900.21	2.1898
Stddev	.63610	169.	1.401	1.052	3.00	.2790
%RSD	122.14	.55988	4.3109	1.1939	.33343	12.743
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1464500.	2.716	23.480	118.23	72.832	52479.
Stddev	2904.	.115	.320	.99	.851	232.
%RSD	.19832	4.244	1.3618	.84148	1.1686	.44232
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9220.3	104.55	F 659840.	2618.4	37.135	2829.4
Stddev	42.6	.44	1078.	18.7	.406	6.1
%RSD	.46201	.42451	.16336	.71359	1.0923	.21450
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			500000.			
Low Limit			-500000.			

Sample Name: 240-82098-k-21-a Acquired: 7/12/2017 19:00:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	85.532	53.260	10.76	-3.5001	30.973	472.49
Stddev	2.124	.876	3.49	1.7216	.319	2.89
%RSD	2.4838	1.6440	32.40	49.187	1.0293	.61262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1616	93.213	552.95	2457.5	19988.
Stddev	1.1618	3.117	6.00	17.6	65.
%RSD	100.02	3.3439	1.0857	.71536	.32679
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5638.3	4014.1	52669.	8443.3
Stddev	2.1	2.4	310.	9.8
%RSD	.03767	.05988	.58935	.11561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.149%	81.334%	82.824%	91.218%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 19:05:04 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	995.52	24843.	510.45	5100.8	1985.1	1891.2	48811.	503.5
Stddev	3.07	104.	1.99	22.7	8.2	14.3	239.	2.9
%RSD	.30809	.41778	.39071	.44598	.41076	.75699	.48871	.5835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2016.5	1996.4	1977.3	24567.	49681.	4993.4	49284.	2032.0
Stddev	15.0	4.1	6.6	84.	199.	18.5	268.	12.0
%RSD	.74145	.20621	.33369	.34141	.40018	.37105	.54355	.58958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1954.9	49605.	2017.7	493.73	512.0	516.64	5116.2	4983.8
Stddev	13.8	178.	15.5	2.43	6.4	1.36	38.1	30.2
%RSD	.70755	.35783	.76722	.49173	1.244	.26415	.74400	.60640
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 19:05:04 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1016.4	1957.2	2038.4	5007.0	4855.5
Stddev	6.8	12.5	11.8	87.2	32.5
%RSD	.67058	.64109	.57778	1.7421	.66947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7080.2	4556.3	58499.	8751.7
Stddev	18.2	7.8	163.	60.8
%RSD	.25710	.17047	.27900	.69473

Sample Name: CCB Acquired: 7/12/2017 19:09:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.53353	18.060	-.15798	7.4669	.03746	.20139	6.2753	.0882
Stddev	.37334	8.330	1.0005	.3290	.27761	.07389	6.6473	.0951
%RSD	69.976	46.122	633.31	4.4063	741.10	36.689	105.93	107.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14538	.33111	.08561	1.9702	-125.33	-4.2792	-15.784	-.14527
Stddev	.18749	.25893	.33715	1.4500	13.25	1.1022	30.595	.06591
%RSD	128.97	78.199	393.82	73.597	10.573	25.758	193.83	45.374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8231	43.241	-.24528	.29172	1.975	-.39545	.49239	1.9660
Stddev	.2685	10.396	.27066	1.0707	1.939	.42653	.48377	.3910
%RSD	9.5098	24.043	110.35	367.02	98.18	107.86	98.249	19.886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 19:09:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.31833	-1.1910	-.59470	.48559	-1.7372
Stddev	1.4787	1.1876	.12462	2.3171	1.5637
%RSD	464.52	99.721	20.955	477.17	90.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8278.1	4855.7	62989.	8955.8
Stddev	6.4	3.8	53.	50.6
%RSD	.07789	.07856	.08427	.56514

Sample Name: 240-82069-a-21-b Acquired: 7/12/2017 19:13:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.3718	139320.	64.305	17.537	1339.4	3.4108	24707.
Stddev	.3909	821.	.479	.189	9.3	.0609	164.
%RSD	11.592	.58938	.74501	1.0789	.69694	1.7852	.66179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.072	159.82	290.34	136.61	226470.	3672.8	84.660
Stddev	.215	3.97	1.41	.58	1163.	28.2	.471
%RSD	5.274	2.4860	.48519	.42217	.51367	.76789	.55691
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65085.	4082.8	5.6428	2912.0	228.83	86.040	.4647
Stddev	274.	40.2	.3375	15.6	6.79	1.526	2.190
%RSD	.42093	.98379	5.9812	.53552	2.9676	1.7740	471.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-21-b Acquired: 7/12/2017 19:13:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0231	38.086	1300.7	-4.4044	571.45	579.42	1534.6
Stddev	3.0517	1.557	3.4	2.6708	2.36	7.10	20.7
%RSD	298.28	4.0889	.26023	60.639	.41315	1.2254	1.3478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	412.67
Stddev	1.48
%RSD	.35911
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7184.0	5212.5	67256.	9995.0
Stddev	12.7	5.8	184.	50.1
%RSD	.17736	.11155	.27386	.50172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.557%	105.62%	105.76%	107.98%
Range				

Sample Name: 240-82069-a-22-b Acquired: 7/12/2017 19:17:52 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.7878	144880.	65.441	13.067	1501.1	3.7966	23424.
Stddev	.2175	1481.	2.024	.203	11.9	.1019	157.
%RSD	5.7418	1.0222	3.0925	1.5503	.79446	2.6837	.66891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.614	194.76	303.15	139.66	235760.	3636.3	94.778
Stddev	.025	2.44	.47	.17	2180.	41.2	.567
%RSD	.6832	1.2517	.15430	.12057	.92469	1.1318	.59844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	73171.	5826.1	6.0429	2915.3	240.07	108.79	-2.026
Stddev	508.	11.8	.5223	19.1	3.02	3.44	1.823
%RSD	.69388	.20176	8.6430	.65464	1.2591	3.1665	89.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-22-b Acquired: 7/12/2017 19:17:52 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0128	33.195	930.87	-4.0897	598.39	616.14	1327.6
Stddev	3.1911	.408	1.39	2.2410	4.05	4.27	16.1
%RSD	315.07	1.2287	.14928	54.797	.67690	.69318	1.2123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	453.53
Stddev	9.97
%RSD	2.1983
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7176.4	5213.5	67252.	9964.5
Stddev	8.7	15.1	103.	45.7
%RSD	.12167	.29055	.15363	.45875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.467%	105.64%	105.76%	107.65%
Range				

Sample Name: 240-82069-a-23-b Acquired: 7/12/2017 19:22:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.3342	169720.	73.757	17.957	1691.9	3.9788	41047.
Stddev	.0831	872.	1.088	.290	13.9	.2008	337.
%RSD	1.9169	.51376	1.4751	1.6161	.81948	5.0471	.82100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.579	189.89	340.56	161.70	265880.	4586.4	109.53
Stddev	.225	.80	1.90	.20	2060.	39.4	.56
%RSD	4.914	.41979	.55845	.12384	.77490	.85975	.51086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78653.	5281.3	6.4178	3495.8	293.74	103.75	-.8794
Stddev	473.	50.2	.0447	27.3	2.08	2.37	1.972
%RSD	.60133	.95125	.69707	.78205	.70719	2.2839	224.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-23-b Acquired: 7/12/2017 19:22:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4288	38.038	1465.5	-3.2139	660.83	712.54	1621.5
Stddev	2.4570	.606	4.6	2.5035	1.19	5.47	20.3
%RSD	171.96	1.5926	.31141	77.896	.18034	.76793	1.2529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	552.44
Stddev	2.27
%RSD	.41181
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7103.6	5393.5	69079.	10355.
Stddev	4.9	16.3	41.	46.
%RSD	.06931	.30239	.05927	.44638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.600%	109.28%	108.63%	111.88%
Range				

Sample Name: 240-82069-a-24-b Acquired: 7/12/2017 19:26:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.7327	143080.	63.298	16.031	1368.2	3.3091	29845.
Stddev	.3490	147.	.547	.302	.6	.1441	7.
%RSD	9.3496	.10258	.86408	1.8853	.04431	4.3554	.02400
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.237	139.73	292.88	139.05	226830.	4100.0	91.342
Stddev	.125	.76	.78	.73	192.	5.1	1.535
%RSD	3.845	.54353	.26673	.52718	.08459	.12431	1.6803
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64950.	4125.9	5.3019	2971.2	227.23	85.704	-2.108
Stddev	70.	32.8	.4866	24.9	3.93	2.056	2.560
%RSD	.10756	.79380	9.1783	.83736	1.7312	2.3988	121.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-24-b Acquired: 7/12/2017 19:26:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2279	33.209	1098.1	-2.9026	556.20	587.26	1439.2
Stddev	2.4684	1.746	1.7	1.8677	5.35	4.06	17.1
%RSD	110.80	5.2560	.15542	64.347	.96225	.69195	1.1914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	425.43
Stddev	1.09
%RSD	.25724
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7199.8	5257.6	67396.	10110.
Stddev	1.8	2.9	17.	4.
%RSD	.02535	.05584	.02593	.03563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.745%	106.53%	105.98%	109.23%
Range				

Sample Name: 240-82069-a-25-d Acquired: 7/12/2017 19:30:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.6918	145320.	63.344	16.051	1373.7	3.4483	36062.
Stddev	.2005	213.	1.431	.334	2.3	.0095	76.
%RSD	5.4315	.14630	2.2596	2.0818	.17009	.27651	.20941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.422	149.67	286.39	141.10	233060.	4068.2	93.597
Stddev	.139	.46	4.68	1.82	335.	44.0	.538
%RSD	3.136	.30761	1.6349	1.2894	.14360	1.0808	.57450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64897.	4594.0	5.7006	2967.7	260.77	85.869	-2.004
Stddev	63.	803.5	.5545	5.1	.75	2.378	1.031
%RSD	.09645	17.489	9.7264	.17224	.28832	2.7693	51.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-25-d Acquired: 7/12/2017 19:30:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.32717	33.370	1040.7	-1.9520	557.65	603.71	1526.5
Stddev	2.7329	1.174	4.5	1.7514	.76	4.97	4.9
%RSD	835.33	3.5191	.43527	89.724	.13700	.82291	.31998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	434.87
Stddev	4.55
%RSD	1.0467
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7204.0	5222.5	66740.	10049.
Stddev	11.0	7.0	1152.	12.
%RSD	.15256	.13459	1.7266	.11964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.795%	105.82%	104.95%	108.57%
Range				

Sample Name: 240-82069-a-26-b Acquired: 7/12/2017 19:35:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.4810	153930.	66.583	15.927	1454.6	3.9150	23897.
Stddev	.1869	803.	.822	.440	6.7	.0943	96.
%RSD	5.3704	.52139	1.2339	2.7652	.45812	2.4097	.39983
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.866	140.50	299.96	141.72	245520.	4019.1	97.501
Stddev	.206	.84	1.37	.85	903.	20.7	1.186
%RSD	5.318	.59812	.45615	.60158	.36798	.51384	1.2161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65671.	4442.8	5.3266	3133.2	257.32	90.277	-.1869
Stddev	322.	45.7	.2776	14.3	.90	1.131	.7988
%RSD	.49026	1.0275	5.2107	.45580	.34954	1.2526	427.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-26-b Acquired: 7/12/2017 19:35:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09457	38.981	1107.9	-4.2871	586.76	622.26	1434.7
Stddev	3.6882	1.220	3.6	.6329	.85	4.62	6.2
%RSD	3900.1	3.1296	.32080	14.763	.14552	.74238	.43301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	446.05
Stddev	4.95
%RSD	1.1106
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7178.0	5249.5	67556.	10039.
Stddev	16.3	3.3	114.	51.
%RSD	.22765	.06347	.16801	.51076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.486%	106.37%	106.23%	108.46%
Range				

Sample Name: 240-82069-a-27-b Acquired: 7/12/2017 19:39:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.2452	174520.	78.097	14.829	1750.9	4.4378	52676.
Stddev	.1200	645.	3.383	.117	6.7	.0889	126.
%RSD	2.8262	.36985	4.3323	.78613	.38096	2.0023	.23864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.572	260.76	390.74	167.16	269430.	4551.3	149.44
Stddev	.245	2.64	1.77	.48	3246.	23.7	1.05
%RSD	5.364	1.0142	.45229	.28867	1.2048	.52036	.70331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	92940.	6225.1	9.0712	3834.0	296.92	108.73	-2.446
Stddev	457.	104.5	.5494	21.2	3.08	1.53	.131
%RSD	.49130	1.6793	6.0571	.55283	1.0379	1.4027	5.370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-27-b Acquired: 7/12/2017 19:39:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-5.2140	35.962	1407.1	-3.8158	742.89	770.91	1415.2
Stddev	5.5112	.981	7.5	1.8632	5.05	7.38	6.9
%RSD	105.70	2.7288	.52998	48.828	.68038	.95728	.49079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	639.77
Stddev	9.42
%RSD	1.4719
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6973.0	5289.7	68191.	10269.
Stddev	23.3	12.5	166.	45.
%RSD	.33437	.23592	.24407	.43460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.044%	107.18%	107.23%	110.94%
Range				

Sample Name: 240-82069-a-28-b Acquired: 7/12/2017 19:43:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-3.5673	164330.	70.626	18.413	1580.5	3.3665	41041.
Stddev	.3922	670.	1.049	.455	5.0	.2595	159.
%RSD	10.994	.40787	1.4851	2.4730	.31811	7.7077	.38794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.460	176.82	359.52	165.82	260070.	5340.0	112.24
Stddev	.075	2.59	1.74	1.50	962.	46.4	.40
%RSD	1.371	1.4661	.48348	.90271	.36977	.86854	.36067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	75642.	4893.1	6.1329	2770.0	267.83	98.872	.5055
Stddev	91.	38.0	.2564	12.5	2.73	.565	1.494
%RSD	.12055	.77671	4.1799	.45286	1.0186	.57114	295.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82069-a-28-b Acquired: 7/12/2017 19:43:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.6764	38.166	4453.0	-3.1920	658.85	682.89	1576.0
Stddev	1.1417	.219	43.8	2.3213	2.78	4.55	19.7
%RSD	68.107	.57370	.98312	72.721	.42153	.66681	1.2498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	529.28
Stddev	6.04
%RSD	1.1409
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7115.4	5179.4	66365.	9989.7
Stddev	11.6	13.1	302.	23.0
%RSD	.16249	.25309	.45501	.23055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.741%	104.94%	104.36%	107.93%
Range				

Sample Name: 240-82056-b-12-c Acquired: 7/12/2017 19:48:08 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6106	4193.4	4.0314	6.4383	11328.	.09361	3751.1
Stddev	.6091	22.6	1.7747	.5453	59.	.13120	8.3
%RSD	37.818	.53779	44.021	8.4698	.52177	140.15	.22018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0811	3.4611	72.696	675.13	1581.6	14.697	-2.9467
Stddev	.1011	.2367	.155	3.33	7.1	19.102	.5662
%RSD	124.6	6.8396	.21288	.49314	.45060	129.98	19.215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	641.90	71.637	3.4590	528.89	51.230	1810.4	-.4277
Stddev	6.27	.444	.1922	12.36	1.390	26.5	1.026
%RSD	.97714	.61999	5.5568	2.3374	2.7133	1.4631	239.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82056-b-12-c Acquired: 7/12/2017 19:48:08 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.9129	F 31357.	305.47	-6.0126	10.546	219.31	1803.1
Stddev	1.5382	599.	.96	.4485	1.858	4.26	14.4
%RSD	26.015	1.9099	.31397	7.4588	17.614	1.9433	.79623
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		30000.					
Low Limit		-500000.					

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	125.99
Stddev	.30
%RSD	.23643
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8286.4	4920.6	64972.	9465.5
Stddev	18.1	8.4	230.	19.6
%RSD	.21816	.17167	.35467	.20687
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.686%	99.702%	102.17%	102.26%
Range				

Sample Name: 240-81996-b-2-a@5 Acquired: 7/12/2017 19:52:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02099	-1.6474	1.0640	721.20	90.895	.14443	65994.
Stddev	.14374	8.6907	1.5025	5.76	.321	.11587	40.
%RSD	684.78	527.55	141.21	.79910	.35292	80.224	.06031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0292	.54406	.57370	-.61795	652.02	7942.1	152.80
Stddev	.0403	.09701	.23687	.69783	5.86	10.6	1.92
%RSD	137.9	17.831	41.287	112.93	.89942	.13295	1.2547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31162.	42.387	.33480	219710.	1.2542	.28311	3.230
Stddev	196.	.123	.09421	1850.	.4902	1.1129	1.982
%RSD	.62745	.29067	28.140	.84215	39.089	393.10	61.38
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81996-b-2-a@5 Acquired: 7/12/2017 19:52:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.41897	6.9430	.33217	.33294	-3.8725	-2.0249	826.65
Stddev	1.4221	.2545	.22363	.79722	2.3731	.0475	10.12
%RSD	339.43	3.6650	67.323	239.44	61.281	2.3467	1.2241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	5409.3
Stddev	27.5
%RSD	.50923
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7054.2	4552.1	58177.	8782.3
Stddev	8.4	9.2	216.	18.6
%RSD	.11866	.20233	.37139	.21226
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.012%	92.235%	91.484%	94.881%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 19:57:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	987.74	24792.	512.09	5054.4	1971.6	1854.8	48470.	499.5
Stddev	1.23	122.	2.25	12.1	7.4	12.3	208.	1.3
%RSD	.12482	.49166	.43918	.23984	.37781	.66334	.42984	.2645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2008.4	1981.5	1960.2	24460.	49222.	4945.8	48686.	2023.0
Stddev	2.0	4.3	7.2	51.	271.	26.1	275.	12.3
%RSD	.09776	.21528	.36847	.20870	.55109	.52824	.56494	.60964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1944.6	49074.	2008.1	492.39	509.1	510.80	5102.6	4914.9
Stddev	9.5	313.	1.2	2.11	1.0	.23	6.1	53.4
%RSD	.48797	.63718	.05741	.42835	.2047	.04477	.12004	1.0855
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 19:57:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1015.8	1926.9	2032.9	5016.0	4802.6
Stddev	3.0	7.1	1.3	60.5	30.4
%RSD	.29083	.36948	.06192	1.2068	.63345
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7128.6	4600.8	59059.	8777.2
Stddev	16.5	15.5	150.	43.9
%RSD	.23091	.33748	.25482	.49978

Sample Name: CCB Acquired: 7/12/2017 20:01:02 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.63870	6.8027	-.03307	6.8529	-.12308	.27255	238.64	-.0729
Stddev	.12856	9.8481	1.6091	.7545	.16405	.06873	2.70	.1597
%RSD	20.129	144.77	4865.9	11.010	133.30	25.218	1.1312	218.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10465	.74616	.64792	4.7527	-120.36	-2.1741	-16.049	1.6863
Stddev	.11305	.08274	.43512	.7730	23.66	1.2550	18.394	.0446
%RSD	108.02	11.088	67.156	16.265	19.658	57.726	114.62	2.6468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8212	40.383	.47993	.70959	1.241	.62218	1.9712	2.1079
Stddev	.3112	6.323	.43970	.20472	1.032	.89023	.6898	.2401
%RSD	11.030	15.657	91.618	28.851	83.16	143.08	34.993	11.392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 20:01:02 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.09747	-.63524	6.7696	2.4948	-1.2122
Stddev	1.4728	1.1059	.0886	1.6829	3.1790
%RSD	1511.0	174.09	1.3088	67.458	262.26
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8235.3	4835.2	62374.	8847.3
Stddev	20.2	10.1	74.	41.2
%RSD	.24574	.20891	.11877	.46604

Sample Name: 190-13891-a-1-a@2 Acquired: 7/12/2017 20:05:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7563	7812.8	33.126	40.555	811.09	.32954	36762.	1.663
Stddev	.4654	69.2	2.782	.272	3.71	.10185	183.	.170
%RSD	16.886	.88554	8.3988	.67102	.45686	30.907	.49664	10.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	57.025	199.25	462.58	77762.	2213.7	6.5380	6960.5	1731.0
Stddev	.269	1.25	1.88	363.	3.3	.5902	30.9	9.7
%RSD	.47131	.62893	.40647	.46693	.15047	9.0272	.44418	.56074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.850	7228.7	39.704	61.540	11.07	6.1138	42.638	107.07
Stddev	.177	60.2	.239	1.779	3.08	2.3393	.758	.62
%RSD	1.3737	.83244	.60321	2.8908	27.83	38.263	1.7774	.57676
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-13891-a-1-a@2 Acquired: 7/12/2017 20:05:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.6501	19.072	4863.4	1780.2	206.95
Stddev	1.4494	4.397	55.2	5.5	5.46
%RSD	87.841	23.053	1.1348	.31000	2.6365
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7747.2	4754.5	61551.	8984.4
Stddev	10.2	12.1	249.	53.8
%RSD	.13153	.25551	.40411	.59878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.265%	96.336%	96.791%	97.065%
Range				

Sample Name: 240-82051-b-3-a@2 Acquired: 7/12/2017 20:09:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.3924	48235.	k 146.99	63.561	770.10	5.7054	218460.
Stddev	.2697	70.	10.89	.435	2.01	.0684	155.
%RSD	4.2187	.14493	7.4080	.68485	.26060	1.1995	.07097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 25.99	46.633	3464.7	509.64	296410.	5028.1	87.986
Stddev	.59	.714	23.3	4.21	195.	24.9	2.014
%RSD	2.287	1.5308	.67124	.82637	.06572	.49611	2.2892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46622.	^ *****	106.73	688.79	179.64	901.87	6.372
Stddev	39.	-----	1.45	13.71	1.71	3.71	1.850
%RSD	.08466	-----	1.3565	1.9909	.95438	.41138	29.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82051-b-3-a@2 Acquired: 7/12/2017 20:09:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k 13.362	145.37	3927.3	k 26.513	528.21	2797.8	4978.3
Stddev	13.967	.75	27.5	22.771	5.18	22.3	63.5
%RSD	104.53	.51773	.70035	85.886	.98069	.79592	1.2754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	471.22
Stddev	3.03
%RSD	.64401
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6988.2	4805.4	62215.	9382.4
Stddev	11.6	4.3	270.	18.4
%RSD	.16571	.08883	.43327	.19562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.226%	97.367%	97.835%	101.36%
Range				

Sample Name: 240-81843-b-2-g@20 Acquired: 7/12/2017 20:13:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.60838	487.05	2554.1	61.531	54.907	.15741	4649.8
Stddev	.61171	9.31	34.5	.556	.317	.13388	19.4
%RSD	100.55	1.9114	1.3526	.90302	.57745	85.055	.41828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.652	6.3723	131.50	154.30	112510.	602.28	-.42504
Stddev	.134	.1592	.75	.35	452.	3.95	.72980
%RSD	8.082	2.4975	.57395	.22719	.40172	.65506	171.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	550.98	597.26	70.622	7084.3	88.638	73.010	27.05
Stddev	4.48	1.48	1.800	58.3	2.034	2.118	1.13
%RSD	.81257	.24813	2.5487	.82352	2.2946	2.9011	4.161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81843-b-2-g@20 Acquired: 7/12/2017 20:13:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.64281	16.629	24.585	-.51647	-1.2355	500.86	1681.4
Stddev	1.8012	.345	.030	.26189	3.1084	6.82	15.7
%RSD	280.20	2.0736	.12219	50.707	251.58	1.3625	.93637
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	42.638
Stddev	3.565
%RSD	8.3609
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7916.1	4774.5	61571.	8979.8
Stddev	54.3	31.3	271.	35.5
%RSD	.68564	.65570	.44081	.39555
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.277%	96.742%	96.823%	97.015%
Range				

Sample Name: 240-81994-a-1-c Acquired: 7/12/2017 20:18:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13393	66.585	9.3375	88.461	436.38	.37155
Stddev	.27976	28.427	1.3693	2.404	4.66	.27653
%RSD	208.88	42.692	14.664	2.7172	1.0682	74.426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	367230.	.6965	7.3763	2.1984	.86402	25.572
Stddev	7174.	.0535	.6425	.3539	1.3221	3.414
%RSD	1.9534	7.677	8.7098	16.098	153.02	13.350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3693.4	25.625	18548.	1972.3	.50293	F 1207200.
Stddev	43.9	1.412	283.	10.9	.32876	15479.
%RSD	1.1896	5.5104	1.5248	.55187	65.368	1.2822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81994-a-1-c Acquired: 7/12/2017 20:18:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	26.136	7.1381	2.408	1.1322	2.2902	1.0585
Stddev	.454	.9895	1.475	2.1502	.8025	.1371
%RSD	1.7383	13.862	61.27	189.91	35.038	12.950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-3.0579	-1.2907	56.855	2638.1	680.23
Stddev	2.1044	2.2857	1.873	38.4	7.43
%RSD	68.816	177.09	3.2953	1.4563	1.0919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5893.0	4107.2	52822.	8580.5
Stddev	47.0	36.9	185.	77.4
%RSD	.79808	.89824	.35082	.90189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.182%	83.221%	83.064%	92.700%
Range				

Sample Name: 240-81858-b-1-b Acquired: 7/12/2017 20:22:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04855	125.41	10.192	1617.2	788.00	.25460
Stddev	.48894	14.33	3.880	38.3	2.98	.10566
%RSD	1007.1	11.429	38.068	2.3674	.37814	41.502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8397.8	.7769	.44014	10.648	13.332	278.74
Stddev	30.3	.1008	.34866	.566	1.636	4.29
%RSD	.36059	12.97	79.217	5.3138	12.273	1.5398
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17644.	14.112	1801.0	20.190	1.0391	F 1260800.
Stddev	62.	1.597	38.6	.062	.2741	11326.
%RSD	.34867	11.317	2.1413	.30524	26.379	.89828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81858-b-1-b Acquired: 7/12/2017 20:22:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.6309	4.9351	-.1647	10.667	6.7116	2.4433
Stddev	.5821	1.2541	2.939	1.662	.6516	.3109
%RSD	8.7788	25.412	1784.	15.584	9.7094	12.725
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-11.943	1.9772	F 65866.	1420.3	53.297
Stddev	1.161	.9618	1154.	3.0	6.321
%RSD	9.7169	48.644	1.7524	.21132	11.861
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6170.3	4175.5	52396.	8560.5
Stddev	19.7	4.8	277.	25.9
%RSD	.31904	.11440	.52819	.30224
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.485%	84.604%	82.395%	92.485%
Range				

Sample Name: 240-81866-a-1-c Acquired: 7/12/2017 20:27:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.93818	373.29	7.0693	224.60	369.35	.26044
Stddev	.25859	8.25	1.1746	3.88	3.28	.14669
%RSD	27.563	2.2103	16.615	1.7271	.88684	56.326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	120650.	1.671	35.583	186.01	211.48	16173.
Stddev	1115.	.141	1.008	1.45	1.24	129.
%RSD	.92407	8.449	2.8339	.78197	.58657	.79836
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1482.2	185.99	365330.	3400.1	13.032	F 1218200.
Stddev	34.5	3.22	3385.	5.4	.232	4978.
%RSD	2.3279	1.7320	.92648	.16018	1.7812	.40862
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81866-a-1-c Acquired: 7/12/2017 20:27:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	899.32	5.0478	6.836	9.9400	4.6007	52.905
Stddev	17.69	.1848	.093	4.1716	.5439	.377
%RSD	1.9670	3.6607	1.363	41.967	11.821	.71268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-10.572	-1.6502	F 16051.	14348.	375.85
Stddev	1.033	2.3104	317.	176.	6.27
%RSD	9.7663	140.01	1.9746	1.2277	1.6679
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5884.0	4036.4	52036.	8588.7
Stddev	24.4	20.0	44.	77.6
%RSD	.41438	.49580	.08431	.90370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.075%	81.785%	81.827%	92.790%
Range				

Sample Name: 240-81851-c-1-d Acquired: 7/12/2017 20:31:37 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.45882	27.592	8.4246	84.510	1977.6	.20304
Stddev	.68408	25.605	2.2607	2.484	6.8	.10876
%RSD	149.10	92.798	26.835	2.9393	.34469	53.567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	429320.	.6012	7.8093	2.3997	1.6344	19.798
Stddev	7309.	.1381	.1052	.0965	.3196	.834
%RSD	1.7023	22.96	1.3469	4.0205	19.553	4.2106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1816.2	31.014	148060.	563.69	2.8723	F 1224500.
Stddev	22.2	1.477	582.	4.01	.0880	8391.
%RSD	1.2204	4.7616	.39288	.71167	3.0627	.68530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-1-d Acquired: 7/12/2017 20:31:37 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	33.858	6.6714	3.086	6.6941	2.0254	-4.3031
Stddev	1.503	.3833	1.613	2.9427	.3487	.2376
%RSD	4.4397	5.7460	52.27	43.960	17.214	5.5206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-7.0767	-3.1576	68.735	7154.4	F 67817.
Stddev	1.3002	4.1291	2.473	90.4	277.
%RSD	18.372	130.77	3.5980	1.2635	.40890
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					50000.
Low Limit					-500000.

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5800.0	3998.2	51794.	8479.5
Stddev	26.8	13.1	229.	39.8
%RSD	.46242	.32724	.44294	.46920
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.075%	81.011%	81.447%	91.610%
Range				

Sample Name: 240-81851-c-2-d Acquired: 7/12/2017 20:36:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02588	68.465	9.5897	82.871	440.14	.30562
Stddev	.26308	22.648	.4466	3.756	2.52	.08621
%RSD	1016.5	33.080	4.6572	4.5325	.57197	28.208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 742590.	1.466	6.3574	2.4402	-2.5253	61.661
Stddev	472.	.177	.6726	.1364	.2373	2.361
%RSD	.06358	12.06	10.580	5.5886	9.3954	3.8289
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2184.8	41.289	18375.	3898.4	7.3113	F 1297800.
Stddev	41.2	1.623	102.	20.1	.5276	5247.
%RSD	1.8854	3.9307	.55738	.51642	7.2162	.40428
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-2-d Acquired: 7/12/2017 20:36:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.182	10.680	5.317	4.6252	1.4187	-.60593
Stddev	.966	.944	1.152	2.6636	.7135	.21499
%RSD	7.9284	8.8355	21.67	57.590	50.291	35.481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.9581	-5.4017	34.083	2541.3	7031.7
Stddev	.5988	3.8517	1.364	17.3	28.2
%RSD	8.6060	71.305	4.0025	.68034	.40144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5762.2	3994.1	51342.	8452.4
Stddev	52.5	35.9	176.	32.9
%RSD	.91124	.89880	.34323	.38866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.625%	80.929%	80.737%	91.317%
Range				

Sample Name: 240-81851-c-3-d Acquired: 7/12/2017 20:41:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21141	58.342	8.9578	52.124	808.47	.27331
Stddev	.23816	14.867	.9005	2.452	5.31	.09495
%RSD	112.65	25.483	10.052	4.7048	.65701	34.740
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 729990.	2.236	7.6736	1.3042	-3.0131	13.021
Stddev	9633.	.088	.1154	.1934	.3325	.943
%RSD	1.3196	3.924	1.5042	14.827	11.034	7.2387
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3210.4	41.941	11285.	4688.5	7.3604	F 1268600.
Stddev	23.8	1.202	36.	37.2	.0711	11067.
%RSD	.74250	2.8650	.31853	.79441	.96645	.87234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-3-d Acquired: 7/12/2017 20:41:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13.374	10.607	4.060	2.6374	7.4726	-1.1047
Stddev	.880	.859	1.826	2.0387	.4640	.2787
%RSD	6.5776	8.1012	44.97	77.301	6.2099	25.225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-7.5500	-1.4914	13.430	2290.1	1296.0
Stddev	1.8580	.3424	.245	9.5	15.4
%RSD	24.609	22.956	1.8207	.41345	1.1912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5761.4	3997.3	51130.	8385.5
Stddev	27.4	14.5	79.	50.4
%RSD	.47581	.36297	.15519	.60135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.615%	80.994%	80.404%	90.594%
Range				

Sample Name: 240-81851-c-4-d Acquired: 7/12/2017 20:45:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3823	157.45	8.5475	47.243	367.04	.98546
Stddev	.3573	15.50	1.9364	.773	.73	.25450
%RSD	25.844	9.8422	22.654	1.6357	.19855	25.826
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	105400.	2.403	31.871	2.2678	2.5154	144.82
Stddev	278.	.134	.654	.3964	.4349	1.46
%RSD	.26393	5.570	2.0508	17.478	17.288	1.0104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	853.08	13.610	17806.	10687.	-.13877	F 1141600.
Stddev	2.03	.419	84.	1529.	.12900	2315.
%RSD	.23852	3.0773	.46990	14.306	92.962	.20276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-4-d Acquired: 7/12/2017 20:45:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.289	9.3413	-.7548	5.0989	2.4549	.60340
Stddev	.480	.2278	1.102	3.1842	1.0722	.25606
%RSD	2.4865	2.4385	145.9	62.449	43.678	42.435
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-6.5845	-.79378	24.645	4184.1	459.06
Stddev	2.7415	.86115	.862	33.9	4.20
%RSD	41.636	108.49	3.4958	.81030	.91402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6141.9	4211.5	52659.	8678.1
Stddev	19.2	8.5	695.	27.9
%RSD	.31191	.20104	1.3195	.32127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.147%	85.333%	82.808%	93.755%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 20:50:23 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	995.38	24566.	505.85	5010.9	1974.0	1886.1	48465.	497.4
Stddev	7.77	54.	1.77	15.7	7.5	18.7	194.	2.6
%RSD	.78025	.22136	.34930	.31305	.38105	.99090	.40118	.5218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1995.9	1986.5	1977.4	24282.	49159.	4919.5	48414.	2022.6
Stddev	16.7	12.1	10.5	35.	293.	22.1	206.	7.5
%RSD	.83635	.61112	.53098	.14377	.59512	.44843	.42490	.37306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1921.9	49155.	1996.2	485.10	503.3	509.59	5047.0	4963.6
Stddev	15.4	288.	17.0	2.41	2.2	3.06	42.7	55.2
%RSD	.80008	.58541	.85093	.49693	.4317	.59985	.84683	1.1126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 20:50:23 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	988.83	1926.7	2014.2	4926.8	4798.8
Stddev	15.90	11.4	18.5	53.1	28.2
%RSD	1.6079	.59397	.91718	1.0772	.58670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7155.4	4620.4	59017.	8812.4
Stddev	10.0	2.4	306.	31.9
%RSD	.13918	.05294	.51794	.36157

Sample Name: CCB Acquired: 7/12/2017 20:54:25 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11707	-1.6233	.29067	7.0356	-.10644	.06363	236.83	-.1151
Stddev	.51398	18.364	1.3915	.7314	.10650	.08214	1.98	.1487
%RSD	439.05	1131.2	478.72	10.395	100.06	129.10	.83442	129.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.23095	.73641	1.0221	3.6281	-71.702	-1.7532	-14.555	1.6962
Stddev	.14820	.64790	.8551	2.9558	26.292	2.1916	11.473	.0731
%RSD	64.171	87.981	83.656	81.469	36.668	125.00	78.826	4.3110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9404	393.56	.45570	.10176	2.377	-.57502	1.5342	2.1188
Stddev	.2672	6.89	.05959	1.0997	.903	1.3790	.3947	.1932
%RSD	9.0860	1.7515	13.077	1080.6	37.98	239.83	25.723	9.1164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 20:54:25 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.82435	.49084	6.8342	-3.1137	-2.6107
Stddev	.88936	3.0100	.4429	3.3587	1.9890
%RSD	107.89	613.24	6.4799	107.87	76.186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8242.8	4856.2	62870.	8961.9
Stddev	19.8	5.5	214.	11.9
%RSD	.23994	.11311	.33977	.13290

Sample Name: 240-81851-c-5-e Acquired: 7/12/2017 20:58:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10472	35.094	4.6444	44.877	585.79	.29830
Stddev	.35503	23.084	1.8869	1.291	2.38	.06708
%RSD	339.04	65.777	40.627	2.8778	.40703	22.486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 761780.	1.910	5.7439	1.7385	-3.0767	3.4189
Stddev	7917.	.154	.3453	.2261	.3793	4.3166
%RSD	1.0392	8.060	6.0124	13.008	12.327	126.25
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5416.0	40.215	16002.	2177.2	7.3357	F 1214100.
Stddev	20.0	.164	95.	9.7	.5017	16461.
%RSD	.36857	.40833	.59429	.44541	6.8389	1.3558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-5-e Acquired: 7/12/2017 20:58:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15.504	7.9474	4.296	2.6668	1.6227	-.18044
Stddev	.978	2.8334	1.697	1.5364	.0740	.09545
%RSD	6.3093	35.652	39.50	57.613	4.5585	52.899
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.4822	-5.3341	9.8355	2821.3	2024.1
Stddev	1.9289	2.4388	.4224	9.0	39.2
%RSD	43.035	45.721	4.2950	.31778	1.9343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5746.5	3976.9	51137.	8378.6
Stddev	20.5	10.2	158.	49.8
%RSD	.35702	.25542	.30871	.59405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.438%	80.580%	80.414%	90.520%
Range				

Sample Name: 240-81851-c-6-e Acquired: 7/12/2017 21:03:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15684	39.256	7.3354	65.255	789.78	.35015
Stddev	.14669	15.845	4.6156	1.883	2.18	.07828
%RSD	93.526	40.362	62.922	2.8857	.27647	22.357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 728290.	1.860	6.2741	1.7449	-2.8032	21.002
Stddev	6556.	.033	.3968	.2561	.8799	2.317
%RSD	.90018	1.751	6.3245	14.675	31.388	11.034
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2555.9	40.058	12588.	4340.6	6.5392	F 1203800.
Stddev	25.0	1.633	44.	28.4	.1432	10260.
%RSD	.97939	4.0755	.35172	.65510	2.1904	.85225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-6-e Acquired: 7/12/2017 21:03:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.122	9.3600	6.699	.81589	2.8575	-.51084
Stddev	.612	1.0934	2.484	4.1003	1.3155	.32131
%RSD	4.3328	11.682	37.07	502.56	46.039	62.898
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-7.2618	-4.8881	20.615	2510.2	2208.1
Stddev	1.3282	3.3281	.404	15.4	11.8
%RSD	18.291	68.086	1.9592	.61208	.53247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5789.8	4014.0	51363.	8423.8
Stddev	21.2	12.9	197.	8.9
%RSD	.36689	.32032	.38303	.10539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.953%	81.331%	80.769%	91.007%
Range				

Sample Name: 240-81851-c-7-e Acquired: 7/12/2017 21:08:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13234	34.650	8.3552	104.54	1032.8	.27725
Stddev	.18667	7.551	1.7752	2.82	3.6	.09426
%RSD	141.05	21.793	21.246	2.7006	.35230	33.997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 763350.	2.608	13.552	1.8655	-2.8359	7.0824
Stddev	872.	.300	.524	.2137	.2326	.4810
%RSD	.11426	11.52	3.8675	11.454	8.2019	6.7915
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3654.4	42.798	23071.	3361.1	6.0129	F 1190800.
Stddev	52.9	1.829	111.	14.2	.4086	9318.
%RSD	1.4468	4.2746	.48153	.42218	6.7948	.78249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81851-c-7-e Acquired: 7/12/2017 21:08:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	36.923	7.7260	6.141	2.3595	.82176	-.91124
Stddev	1.640	.5117	2.591	1.9343	.52430	.16977
%RSD	4.4429	6.6227	42.19	81.979	63.802	18.631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-4.0744	-3.4477	32.050	2518.6	1580.8
Stddev	.8158	2.2396	1.474	23.5	15.5
%RSD	20.022	64.960	4.6000	.93374	.98317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5742.6	3979.1	51258.	8339.4
Stddev	25.5	16.6	193.	11.1
%RSD	.44388	.41640	.37566	.13323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.391%	80.624%	80.605%	90.096%
Range				

Sample Name: 240-81770-b-1-b Acquired: 7/12/2017 21:12:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.45413	624.38	8.8517	796.32	519.67	.12520
Stddev	.49085	11.66	.7711	18.41	.47	.22646
%RSD	108.09	1.8669	8.7117	2.3119	.09029	180.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	306230.	.2190	31.934	3.0535	-3.2338	70799.
Stddev	1272.	.1710	1.322	.0856	.0349	165.
%RSD	.41532	78.06	4.1389	2.8030	1.0795	.23299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	15237.	20.202	103120.	5762.0	485.29	F 1132100.
Stddev	79.	3.198	610.	21.0	17.38	9556.
%RSD	.51538	15.832	.59151	.36529	3.5808	.84408
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 240-81770-b-1-b Acquired: 7/12/2017 21:12:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	390.66	4.0915	5.956	4.2483	2.3731	-.23949
Stddev	13.12	2.4308	.669	2.6975	.0223	.45108
%RSD	3.3576	59.412	11.23	63.497	.93959	188.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-10.193	-2.1265	634.38	2648.5	2563.7
Stddev	1.109	3.6802	21.05	31.2	24.9
%RSD	10.885	173.06	3.3178	1.1779	.97187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5910.3	4064.6	52143.	8535.8
Stddev	23.9	13.3	93.	35.6
%RSD	.40468	.32830	.17855	.41759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.388%	82.356%	81.996%	92.218%
Range				

Sample Name: 240-81865-a-1-b Acquired: 7/12/2017 21:17:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.1554	285.70	14.903	1802.2	^ *****	.81390
Stddev	.4599	10.07	.440	68.4	-----	.14041
%RSD	7.4709	3.5257	2.9547	3.7956	-----	17.252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	88506.	13.92	58.801	4.7979	1192.6	9.8844
Stddev	637.	.96	2.958	.2568	3.5	2.4538
%RSD	.71918	6.861	5.0308	5.3523	.29528	24.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4779.6	27.513	201950.	F 41561.	98.990	F 1209000.
Stddev	28.8	.390	1568.	153.	4.906	2995.
%RSD	.60330	1.4180	.77644	.36801	4.9561	.24775
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
High Limit				15000.		500000.
Low Limit				-500000.		-500000.

Sample Name: 240-81865-a-1-b Acquired: 7/12/2017 21:17:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65.217	9.8354	5.706	3.0864	5.8306	.46076
Stddev	2.735	.8776	1.453	5.7925	.5068	.10929
%RSD	4.1934	8.9224	25.47	187.68	8.6922	23.720
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-13.769	-1.5996	F 191760.	5041.7	1657.7
Stddev	2.009	1.5690	4453.	240.5	4.2
%RSD	14.587	98.092	2.3220	4.7706	.25364
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			10000.		
Low Limit			-500000.		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5691.1	3884.8	51500.	8494.2
Stddev	34.8	18.0	32.	55.3
%RSD	.61120	.46421	.06271	.65081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.778%	78.715%	80.984%	91.768%
Range				

Sample Name: 240-81913-a-3-c Acquired: 7/12/2017 21:22:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00733	44.061	2.1470	253.43	121.54	.11859	16450.	.0855
Stddev	.06939	24.315	.9728	2.85	14.25	.12723	140.	.1021
%RSD	946.42	55.185	45.312	1.1259	11.728	107.28	.85304	119.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02806	2.6196	2.1059	58.278	5713.4	8.8219	6338.9	2.6354
Stddev	.52274	.1598	.2249	2.542	79.1	1.9688	123.8	.1003
%RSD	1862.7	6.0991	10.679	4.3625	1.3843	22.317	1.9528	3.8076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.1470	91575.	3.1109	1.2209	1.896	-.62193	.50161	.21696
Stddev	.2055	811.	.4014	.9358	.698	.49848	.31067	.16135
%RSD	2.2470	.88607	12.903	76.654	36.84	80.152	61.934	74.366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-81913-a-3-c Acquired: 7/12/2017 21:22:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.9698	-.66090	14.046	6159.8	155.30
Stddev	1.8690	.68224	1.574	71.6	5.83
%RSD	94.880	103.23	11.208	1.1626	3.7518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7515.3	4651.6	59759.	8861.1
Stddev	15.8	4.8	259.	61.3
%RSD	.21053	.10356	.43339	.69210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.503%	94.250%	93.973%	95.732%
Range				

Sample Name: 190-13887-c-1-a Acquired: 7/12/2017 21:26:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02347	194.33	1.1986	1169.9	47.143	.08573	26514.
Stddev	.60084	25.55	3.0112	12.5	.638	.16613	539.
%RSD	2559.8	13.148	251.22	1.0650	1.3532	193.78	2.0338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4456	.40304	2.0928	41.406	532.95	7353.0	510.75
Stddev	.0617	.13330	.3717	.744	12.11	176.4	11.23
%RSD	13.85	33.074	17.763	1.7963	2.2713	2.3984	2.1986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11166.	26.746	1.2794	144800.	4.4070	8.4282	2.656
Stddev	319.	.134	.3474	3228.	.3505	1.9819	1.062
%RSD	2.8566	.49969	27.151	2.2292	7.9530	23.515	39.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 190-13887-c-1-a Acquired: 7/12/2017 21:26:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.86813	.60559	.43834	1.0786	2.2445	257.37	2734.2
Stddev	.28674	1.1378	.16335	1.6744	1.2153	2.48	102.8
%RSD	33.029	187.88	37.266	155.24	54.147	.96482	3.7594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	100.01
Stddev	3.96
%RSD	3.9630
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7350.3	4635.3	59515.	8833.6
Stddev	20.6	17.4	154.	160.1
%RSD	.27984	.37436	.25825	1.8121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.538%	93.920%	93.590%	95.435%
Range				

Sample Name: 190-13888-c-1-a Acquired: 7/12/2017 21:30:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.36022	464.86	-.03677	479.42	45.150	-.09786	44901.	.6070
Stddev	.29235	28.26	1.6428	3.69	.302	.12661	247.	.1897
%RSD	81.158	6.0781	4468.2	.76913	.66889	129.38	.54965	31.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.50038	.95052	17.335	2757.0	5209.5	206.48	13225.	41.449
Stddev	.08138	.20417	.490	4.3	5.1	.56	97.	.058
%RSD	16.264	21.480	2.8286	.15716	.09780	.27196	.73092	.14099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.84237	80757.	28.063	16.257	1.885	-2.0395	.74355	.93749
Stddev	.23603	547.	.513	.319	.928	1.4171	.21431	.51189
%RSD	28.020	.67738	1.8280	1.9607	49.24	69.481	28.822	54.603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-13888-c-1-a Acquired: 7/12/2017 21:30:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.49548	.44000	415.48	2998.6	183.81
Stddev	2.0843	3.4268	2.20	15.9	4.78
%RSD	420.66	778.81	.52931	.52883	2.6002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7509.0	4668.0	60248.	8886.0
Stddev	12.4	10.4	81.	56.5
%RSD	.16553	.22278	.13366	.63538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.428%	94.584%	94.741%	96.002%
Range				

Sample Name: 190-13889-c-1-a Acquired: 7/12/2017 21:35:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.49757	364.72	1.2800	751.77	47.165	.10008	28090.	.5106
Stddev	.18425	9.24	2.5078	7.20	.172	.06326	152.	.0660
%RSD	37.030	2.5341	195.91	.95733	.36465	63.216	.53993	12.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04769	1.1982	43.019	1016.5	5046.8	323.22	9377.2	33.435
Stddev	.18834	.2237	.265	4.6	24.9	.93	26.2	.052
%RSD	394.92	18.668	.61517	.45282	.49400	.28897	.27930	.15522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.80983	90338.	2.8992	25.257	2.309	.16752	.37864	.87119
Stddev	.18478	568.	.5962	2.719	.832	1.6402	.48518	.21910
%RSD	22.817	.62927	20.564	10.766	36.05	979.11	128.14	25.149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-13889-c-1-a Acquired: 7/12/2017 21:35:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1732	-.67600	354.92	1996.6	103.54
Stddev	.9829	1.5360	1.58	13.9	3.50
%RSD	83.781	227.22	.44376	.69824	3.3799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7476.0	4669.9	59731.	8845.9
Stddev	9.3	6.3	161.	45.0
%RSD	.12385	.13520	.26956	.50876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.035%	94.621%	93.929%	95.568%
Range				

Sample Name: 240-82060-d-34-a Acquired: 7/12/2017 21:39:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.30088	7918.7	18.993	257.64	95.358	.58590	138090.
Stddev	.21969	63.8	1.735	1.41	.584	.12339	720.
%RSD	73.014	.80624	9.1327	.54596	.61287	21.059	.52112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4497	4.0421	50.676	28.989	15636.	6945.3	16.447
Stddev	.0060	.1174	.745	.847	64.	31.9	1.858
%RSD	1.327	2.9045	1.4707	2.9211	.41110	.45863	11.294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25658.	541.44	12.243	6454.0	14.816	23.982	1.260
Stddev	146.	2.68	.463	31.4	1.194	1.901	.815
%RSD	.56957	.49459	3.7853	.48630	8.0561	7.9248	64.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-34-a Acquired: 7/12/2017 21:39:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5493	3.8094	198.50	-.11070	25.035	65.586	32552.
Stddev	.5172	.3147	4.36	.51610	2.378	.858	231.
%RSD	33.386	8.2618	2.1950	466.21	9.4994	1.3087	.71106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	938.12
Stddev	5.12
%RSD	.54535
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7431.6	4702.9	60216.	8995.3
Stddev	10.6	5.4	375.	35.9
%RSD	.14300	.11527	.62246	.39906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.506%	95.290%	94.692%	97.182%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 21:43:37 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	995.99	24676.	509.61	5038.0	1974.1	1892.6	48516.	499.4
Stddev	6.24	60.	3.15	23.9	7.6	8.8	241.	2.5
%RSD	.62621	.24304	.61889	.47376	.38636	.46565	.49691	.4920
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2007.6	1987.7	1975.9	24248.	49415.	4951.0	48738.	2021.6
Stddev	11.5	11.9	13.9	124.	229.	18.9	160.	13.3
%RSD	.57052	.59650	.70240	.51235	.46282	.38178	.32864	.65546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1935.8	49343.	2008.7	486.61	507.9	508.09	5084.0	4931.6
Stddev	15.3	202.	13.2	.48	3.1	5.05	31.5	35.8
%RSD	.79197	.40997	.65665	.09935	.6094	.99443	.61993	.72657
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 21:43:37 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1006.8	1932.2	2033.3	4952.1	4831.7
Stddev	10.0	8.1	10.9	81.3	30.9
%RSD	.99809	.41834	.53828	1.6416	.64003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7133.2	4608.1	58797.	8704.1
Stddev	7.8	4.9	222.	19.4
%RSD	.10963	.10685	.37697	.22322

Sample Name: CCB Acquired: 7/12/2017 21:47:40 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.20633	16.795	.73656	8.5948	.59747	.12645	234.64	.0708
Stddev	.03707	15.954	.46470	.7637	.25049	.14052	5.02	.0862
%RSD	17.964	94.995	63.091	8.8856	41.926	111.13	2.1375	121.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03194	.87351	.81176	3.4470	-106.16	-3.1158	-10.784	1.7934
Stddev	.24169	.20488	.27960	3.9474	12.58	2.2962	22.489	.0336
%RSD	756.80	23.455	34.443	114.52	11.851	73.696	208.53	1.8764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9105	185.77	.65026	-.20100	.1724	.65661	1.7343	1.7862
Stddev	.1900	4.80	.12533	1.4939	.2128	1.8240	.1541	.2612
%RSD	6.5285	2.5840	19.274	743.25	123.4	277.79	8.8879	14.622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 21:47:40 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.82368	-2.8842	7.3468	-4.5247	-1.2622
Stddev	1.0991	2.0065	.4837	1.2585	3.6895
%RSD	133.44	69.568	6.5836	27.814	292.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8271.7	4868.6	62863.	8849.6
Stddev	25.5	14.7	202.	14.6
%RSD	.30782	.30282	.32116	.16502

Sample Name: 240-82060-e-34-a Acquired: 7/12/2017 21:52:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13089	9.6510	3.9824	252.49	42.141	.19038	88933.	.1250
Stddev	.08959	11.727	2.0981	3.83	.320	.08106	326.	.0980
%RSD	68.442	121.51	52.685	1.5181	.76008	42.579	.36683	78.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04414	3.4308	2.3461	76.201	5152.8	4.6749	11542.	273.94
Stddev	.29131	.0583	.2094	1.590	66.6	2.6497	126.	2.03
%RSD	660.00	1.6981	8.9245	2.0870	1.2925	56.680	1.0943	.74137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.859	5848.9	4.0712	2.4336	1.224	1.3818	.97320	.92086
Stddev	.303	14.9	.2677	1.2544	.821	1.5151	.65245	.27491
%RSD	2.3529	.25533	6.5755	51.546	67.09	109.65	67.042	29.853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-34-a Acquired: 7/12/2017 21:52:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.10242	-.52371	1.8199	18099.	852.96
Stddev	.22118	2.5927	.1013	107.	13.12
%RSD	215.96	495.07	5.5680	.58893	1.5384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7641.3	4704.1	60686.	8972.6
Stddev	26.3	14.3	273.	28.2
%RSD	.34470	.30467	.44983	.31389
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.003%	95.314%	95.430%	96.937%
Range				

Sample Name: 240-82060-d-35-a Acquired: 7/12/2017 21:56:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.61464	209.22	2.4545	238.58	33.993	.15866	115260.
Stddev	.35460	5.46	.6274	.64	.147	.03798	499.
%RSD	57.692	2.6104	25.561	.26951	.43296	23.940	.43290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0606	.24225	1.6280	2.6639	289.31	4474.7	9.9362
Stddev	.1547	.11693	.1071	.4140	1.88	2.2	2.4299
%RSD	255.5	48.268	6.5768	15.540	.65135	.04846	24.455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17729.	45.830	.57074	12354.	1.5820	2.1728	1.953
Stddev	123.	.689	.18560	72.	.4041	.4339	2.082
%RSD	.69333	1.5042	32.518	.58497	25.545	19.968	106.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-35-a Acquired: 7/12/2017 21:56:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.2965	1.1183	5.1516	.81665	-2.5744	7.2359	7354.5
Stddev	2.4398	.0468	.1438	1.3109	1.0716	.1025	76.8
%RSD	29.408	4.1848	2.7911	160.52	41.625	1.4162	1.0445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	822.46
Stddev	12.26
%RSD	1.4902
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7551.6	4661.9	60175.	8889.5
Stddev	12.1	5.6	197.	29.9
%RSD	.15979	.11991	.32662	.33603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.935%	94.459%	94.627%	96.040%
Range				

Sample Name: 240-82060-e-35-a Acquired: 7/12/2017 22:00:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17166	17.694	.90624	233.39	30.638	.15993	112140.
Stddev	.36817	10.865	.74306	.68	.116	.11476	471.
%RSD	214.47	61.401	81.994	.29159	.37707	71.758	.41972
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1474	.06554	1.2198	.39192	5.1763	4341.7	8.5587
Stddev	.0342	.13546	.1647	1.0240	1.4610	53.4	1.1057
%RSD	23.23	206.68	13.503	261.27	28.224	1.2298	12.919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17071.	.61652	.25230	11968.	.59902	2.3983	1.686
Stddev	171.	.07389	.14665	40.	.37764	1.2606	2.027
%RSD	1.0045	11.985	58.126	.33427	63.044	52.562	120.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-35-a Acquired: 7/12/2017 22:00:44 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.380	.28163	.06696	.70336	-1.3792	1.1245	6800.1
Stddev	1.446	.47549	.18554	.32363	1.0455	.0549	36.2
%RSD	13.929	168.84	277.08	46.013	75.800	4.8829	.53304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	805.95
Stddev	8.17
%RSD	1.0138
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7523.8	4634.4	59739.	8854.4
Stddev	13.7	6.1	200.	24.2
%RSD	.18213	.13092	.33538	.27336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.604%	93.902%	93.942%	95.660%
Range				

Sample Name: 190-13895-a-1-a Acquired: 7/12/2017 22:05:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.01295	6921.0	2.9810	990.40	4.3801	.12172
Stddev	.39269	44.5	1.6962	19.59	.1996	.11275
%RSD	3033.3	.64311	56.899	1.9784	4.5568	92.631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24566.	-.1362	.73999	3.3649	18.271	131.44
Stddev	128.	.0302	.38327	.4772	.487	.63
%RSD	.52165	22.15	51.794	14.180	2.6660	.48179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17186.	10.938	4979.6	30.658	7.8717	F 640330.
Stddev	101.	.885	37.0	.321	.3534	6296.
%RSD	.58738	8.0866	.74227	1.0472	4.4888	.98317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500000.
Low Limit						-500000.

Sample Name: 190-13895-a-1-a Acquired: 7/12/2017 22:05:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40.893	.59255	.8744	-1.4564	1.1140	1.3949
Stddev	1.464	1.5082	1.064	.5597	.4725	.0856
%RSD	3.5808	254.53	121.7	38.429	42.414	6.1395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.38424	2.8983	13.998	122.24	221.91
Stddev	1.5456	1.9751	.293	11.31	5.06
%RSD	402.25	68.147	2.0918	9.2542	2.2800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6676.1	4477.8	56724.	8856.4
Stddev	26.1	19.7	154.	25.7
%RSD	.39035	.44047	.27143	.29004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.508%	90.730%	89.200%	95.681%
Range				

Sample Name: 190-13896-a-1-a Acquired: 7/12/2017 22:09:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.48328	132.59	2.1623	126.54	23.293	.09757	29362.	.9207
Stddev	.16991	7.30	2.7661	1.07	.143	.21751	300.	.1316
%RSD	35.157	5.5054	127.93	.84831	.61210	222.94	1.0230	14.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13957	931.78	569.56	117.59	5257.2	1.7120	8266.0	.98029
Stddev	.20096	4.70	2.31	1.11	79.8	1.1989	96.8	.03478
%RSD	143.99	.50453	.40552	.94599	1.5180	70.031	1.1710	3.5478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.66197	16432.	1298.4	14.533	3.240	.11515	1.1469	.80175
Stddev	.11223	175.	8.5	1.974	2.062	.67680	.2223	.21303
%RSD	16.953	1.0621	.65401	13.583	63.62	587.74	19.386	26.571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 190-13896-a-1-a Acquired: 7/12/2017 22:09:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.07578	-2.0277	135.86	699.74	120.01
Stddev	.28689	2.7708	1.63	8.73	2.89
%RSD	378.57	136.65	1.2021	1.2470	2.4066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7812.4	4725.5	61086.	8921.1
Stddev	11.7	4.5	106.	52.4
%RSD	.15024	.09449	.17356	.58716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.041%	95.748%	96.060%	96.380%
Range				

Sample Name: 240-82018-e-1-a Acquired: 7/12/2017 22:13:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.23844	3.9993	.77590	189.47	56.591	.05240	73582.	-.0874
Stddev	.16101	29.167	1.4096	2.17	.083	.23107	295.	.1544
%RSD	67.525	729.29	181.67	1.1455	.14649	441.01	.40040	176.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00943	.73439	1.6632	59.941	2177.3	16.279	25616.	6.5879
Stddev	.13540	.12962	.2003	1.310	12.8	1.357	338.	.0898
%RSD	1436.0	17.650	12.045	2.1847	.58820	8.3360	1.3186	1.3625
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4407	78071.	1.5017	1.0729	.7220	.26933	-.24319	.19942
Stddev	.1326	400.	.3071	.4472	.8380	3.7679	.36116	.28797
%RSD	9.2007	.51232	20.448	41.686	116.1	1399.0	148.51	144.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82018-e-1-a Acquired: 7/12/2017 22:13:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1471	.26579	1.7691	3150.0	1087.4
Stddev	1.3762	2.8787	.1563	47.0	20.3
%RSD	119.97	1083.1	8.8365	1.4924	1.8629
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7349.8	4606.3	59231.	8782.6
Stddev	21.1	13.3	176.	33.8
%RSD	.28726	.28905	.29796	.38528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.533%	93.334%	93.143%	94.884%
Range				

Sample Name: 240-82018-e-2-a Acquired: 7/12/2017 22:18:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06933	22.291	1.7241	184.24	104.76	.02564	85899.	-.0592
Stddev	.10513	5.323	.5825	2.39	.56	.19796	368.	.0569
%RSD	151.63	23.879	33.785	1.2997	.53677	772.09	.42871	96.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26266	.90434	1.3421	505.55	2097.5	16.231	30613.	13.684
Stddev	.12829	.39536	.6798	2.27	34.8	.538	118.	.085
%RSD	48.841	43.718	50.652	.44986	1.6574	3.3123	.38547	.62289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5427	71864.	1.6621	1.2269	.1309	.48388	.09256	.10616
Stddev	.1606	293.	.1958	.2983	2.469	.54165	.11143	.09231
%RSD	10.409	.40827	11.780	24.309	1887.	111.94	120.38	86.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82018-e-2-a Acquired: 7/12/2017 22:18:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.85934	-2.1792	27.173	3248.6	931.44
Stddev	.32039	1.2187	.583	40.2	7.51
%RSD	37.284	55.923	2.1437	1.2363	.80654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7344.8	4590.9	59366.	8771.4
Stddev	12.0	2.6	152.	24.7
%RSD	.16396	.05613	.25625	.28155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.473%	93.022%	93.355%	94.763%
Range				

Sample Name: 240-82019-e-1-a Acquired: 7/12/2017 22:22:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.01865	17.036	-.41795	184.09	67.312	-.00025	76244.	.1864
Stddev	.18132	8.965	.72723	3.00	.143	.08303	197.	.0320
%RSD	972.39	52.623	174.00	1.6321	.21309	33447.	.25886	17.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10476	1.3724	2.5334	187.72	2151.7	15.241	26615.	11.558
Stddev	.34335	.0750	.3751	2.37	23.2	1.238	310.	.120
%RSD	327.76	5.4640	14.805	1.2637	1.0804	8.1260	1.1654	1.0340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.5259	77951.	3.7075	2.0286	1.210	-.62886	.95659	.22301
Stddev	.3439	62.	.2646	1.6702	1.042	.97813	.32476	.20371
%RSD	22.536	.08004	7.1364	82.334	86.13	155.54	33.950	91.344
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82019-e-1-a Acquired: 7/12/2017 22:22:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.63224	2.1346	24.388	3159.3	1058.5
Stddev	.52623	3.7038	.597	44.9	10.8
%RSD	83.233	173.51	2.4475	1.4218	1.0173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7375.3	4640.6	59497.	8860.6
Stddev	23.1	9.5	87.	37.7
%RSD	.31269	.20374	.14684	.42539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.836%	94.029%	93.560%	95.727%
Range				

Sample Name: 240-82054-a-1-a Acquired: 7/12/2017 22:26:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10278	6.6757	.16125	103.65	8.9228	.07247	47362.	-.0060
Stddev	.25046	12.986	1.3388	.20	.0474	.05936	198.	.0149
%RSD	243.68	194.53	830.25	.19756	.53123	81.910	.41875	250.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.01863	.65779	4.2878	3.6509	2164.3	1.7773	11125.	.21678
Stddev	.20586	.41430	.3201	1.8975	7.9	.2483	64.	.03300
%RSD	1105.3	62.984	7.4661	51.973	.36314	13.973	.57255	15.221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.4021	20546.	.91962	.76808	1.902	-2.2100	-.07358	.14520
Stddev	.2717	94.	.19926	.43320	.407	1.7666	.35974	.08469
%RSD	11.312	.45896	21.667	56.401	21.42	79.936	488.92	58.327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82054-a-1-a Acquired: 7/12/2017 22:26:50 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.81765	-2.7675	.22058	3097.8	248.65
Stddev	1.3587	2.3958	.09227	46.0	2.05
%RSD	166.17	86.570	41.831	1.4861	.82354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7737.1	4715.5	60775.	8957.9
Stddev	58.6	39.1	162.	32.5
%RSD	.75728	.82830	.26723	.36307
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.145%	95.547%	95.570%	96.778%
Range				

Sample Name: 240-82032-a-2-a Acquired: 7/12/2017 22:31:12 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17900	241.78	3.6474	454.85	81.985	.18014	72392.
Stddev	.27352	18.31	.5421	1.61	.434	.10958	339.
%RSD	152.81	7.5743	14.864	.35428	.52915	60.832	.46759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0463	.38092	1.9196	5.1783	814.58	26529.	54.602
Stddev	.0443	.22353	.1597	.6513	4.97	140.	1.276
%RSD	95.68	58.681	8.3204	12.577	.60971	.52664	2.3366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13525.	598.89	37.472	221830.	9.1459	10.916	3.241
Stddev	78.	2.41	.583	1736.	.1253	.545	.944
%RSD	.57884	.40275	1.5563	.78263	1.3705	4.9931	29.12
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82032-a-2-a Acquired: 7/12/2017 22:31:12 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.47639	2.2114	3.0027	.17405	-2.8996	421.34	8297.9
Stddev	.73436	.6359	.0496	.59963	1.8261	2.46	43.0
%RSD	154.15	28.755	1.6515	344.52	62.979	.58282	.51795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	877.41
Stddev	7.03
%RSD	.80128
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7081.6	4562.4	58230.	8790.1
Stddev	10.0	10.3	127.	38.9
%RSD	.14113	.22581	.21782	.44299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.338%	92.443%	91.568%	94.966%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 22:35:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	991.36	24718.	510.34	5052.5	1980.2	1874.6	48719.	502.3
Stddev	2.37	246.	1.81	16.0	12.8	14.2	298.	1.3
%RSD	.23925	.99398	.35415	.31759	.64642	.75536	.61261	.2546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2013.1	1984.3	1970.8	24381.	49549.	4961.9	48745.	2027.9
Stddev	1.6	4.0	3.2	112.	376.	41.7	436.	10.5
%RSD	.08080	.20314	.16413	.45996	.75893	.84033	.89412	.51800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1945.1	49278.	2016.2	493.20	504.8	512.03	5108.7	4919.6
Stddev	.1	456.	.8	5.30	3.4	1.51	2.1	45.5
%RSD	.00669	.92507	.04006	1.0748	.6637	.29436	.04094	.92570
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 22:35:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1011.4	1938.1	2037.2	4965.5	4828.3
Stddev	4.7	13.1	2.6	59.6	39.7
%RSD	.46620	.67716	.12925	1.1993	.82137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7137.0	4609.1	59057.	8675.1
Stddev	13.8	14.2	123.	32.1
%RSD	.19356	.30900	.20879	.37014

Sample Name: CCB Acquired: 7/12/2017 22:39:42 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03908	8.8111	1.5459	7.6761	-.01419	.21246	238.42	-.0629
Stddev	.13510	9.2753	1.1706	.7836	.11506	.01294	.46	.1076
%RSD	345.68	105.27	75.724	10.208	810.69	6.0899	.19253	171.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05155	.49643	.98909	3.7260	-124.16	-3.6378	-1.0090	1.6714
Stddev	.22480	.06096	.45103	1.3398	11.77	1.2967	14.862	.0137
%RSD	436.10	12.280	45.600	35.958	9.4809	35.645	1473.0	.81817
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.9792	135.68	.51243	1.2129	2.220	2.7649	1.3376	2.0639
Stddev	.3332	5.55	.09743	1.7156	1.220	1.9290	.0668	.1272
%RSD	11.183	4.0892	19.014	141.44	54.93	69.769	4.9963	6.1609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 22:39:42 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.19100	-3.4599	7.1801	-.89762	-2.2951
Stddev	.88188	.9308	.0459	3.2685	2.2379
%RSD	461.71	26.903	.63874	364.13	97.510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8227.5	4848.3	62131.	8792.6
Stddev	21.0	6.3	64.	44.1
%RSD	.25545	.13054	.10318	.50143

Sample Name: mb 240-286667/1-a Acquired: 7/12/2017 22:44:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.46962	8.8706	1.1274	7.1312	1.9482	.10107	383.42
Stddev	.27977	28.216	.7611	.9215	.1606	.10660	1.35
%RSD	59.574	318.09	67.514	12.922	8.2439	105.47	.35089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2493	-.04197	.91399	F 6.3646	40.956	-88.454	-1.4435
Stddev	.0039	.05954	.27375	.2038	1.846	24.301	1.7669
%RSD	1.584	141.85	29.952	3.2016	4.5082	27.473	122.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000			
Low Limit				-1000.0			

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	132.31	.37106	.85654	265.30	1.0214	-.03909	2.106
Stddev	20.62	.01231	.18820	6.31	.4325	.15743	1.551
%RSD	15.582	3.3186	21.972	2.3796	42.344	402.70	73.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: mb 240-286667/1-a Acquired: 7/12/2017 22:44:07 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26387	31.011	1.2448	-1.4906	-1.9445	1.0966	88.272
Stddev	2.9325	.693	.2459	1.0095	1.5591	.0530	9.272
%RSD	1111.3	2.2345	19.758	67.724	80.177	4.8372	10.504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	2.8183
Stddev	1.9928
%RSD	70.711
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8018.4	4778.3	62008.	8772.2
Stddev	8.5	9.9	393.	12.5
%RSD	.10656	.20758	.63371	.14299

Sample Name: lcs 240-286667/2-a Acquired: 7/12/2017 22:48:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.876	2078.7	2103.5	1013.8	2031.1	48.320	50895.	51.88
Stddev	.110	14.7	8.8	2.9	13.9	.346	409.	.41
%RSD	.21240	.70641	.41928	.28992	.68401	.71597	.80321	.7915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	507.77	208.65	262.54	1050.0	50389.	1006.4	50260.	528.11
Stddev	3.12	.32	.84	8.9	473.	9.8	526.	.50
%RSD	.61361	.15546	.31860	.85212	.93782	.96897	1.0467	.09529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1002.2	49987.	515.93	498.72	509.6	2044.2	2077.6	1017.1
Stddev	7.8	467.	4.56	2.98	.9	15.4	14.5	3.3
%RSD	.77348	.93430	.88376	.59819	.1695	.75213	.69792	.32614
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286667/2-a Acquired: 7/12/2017 22:48:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1975.0	507.48	516.76	1159.7	1000.9
Stddev	10.0	3.62	1.96	22.9	15.2
%RSD	.50517	.71406	.37926	1.9721	1.5178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7197.2	4552.7	58589.	8653.5
Stddev	6.1	5.1	74.	50.2
%RSD	.08460	.11287	.12622	.57968

Sample Name: 240-81810-a-1-g Acquired: 7/12/2017 22:52:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.74907	19787.	54.428	100.19	266.51	3.2156
Stddev	.40753	50.	2.645	.41	.88	.0926
%RSD	54.404	.25514	4.8589	.40503	.32972	2.8789
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4648800.	2.537	28.594	202.67	183.02	91475.
Stddev	20059.	.132	.663	.79	2.08	451.
%RSD	.43148	5.215	2.3202	.39025	1.1347	.49277
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3550.3	341.81	107170.	2059.9	60.906	5664.2
Stddev	29.4	6.52	289.	14.5	1.153	16.9
%RSD	.82755	1.9086	.26954	.70238	1.8933	.29900
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-1-g Acquired: 7/12/2017 22:52:27 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	387.88	245.58	19.57	-2.5496	43.499	725.93
Stddev	7.69	4.00	2.22	3.1182	1.007	3.83
%RSD	1.9816	1.6280	11.33	122.30	2.3150	.52775
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.0107	92.670	1354.2	4778.5	2855.5
Stddev	.5050	6.051	18.5	91.4	11.6
%RSD	16.772	6.5298	1.3638	1.9132	.40640
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4924.8	3717.8	48578.	8045.8
Stddev	22.1	10.8	153.	11.4
%RSD	.44850	.29113	.31401	.14112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	58.652%	75.330%	76.391%	86.924%
Range				

Sample Name: SD 240-81810-a-1-g@5 Acquired: 7/12/2017 22:56:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04103	4057.6	9.8365	20.138	55.526	.74465
Stddev	.29879	42.6	2.4924	.533	.573	.08045
%RSD	728.27	1.0505	25.338	2.6463	1.0322	10.804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1185600.	.5558	6.1397	45.704	36.518	20104.
Stddev	8831.	.1581	.6030	.485	.649	140.
%RSD	.74488	28.45	9.8211	1.0607	1.7775	.69864
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	599.54	48.533	23771.	451.20	13.486	1257.5
Stddev	22.23	1.652	275.	2.58	.161	9.9
%RSD	3.7071	3.4034	1.1573	.57076	1.1957	.78824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: SD 240-81810-a-1-g@5 Acquired: 7/12/2017 22:56:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	82.721	63.120	9.801	-2.7059	8.2010	151.52
Stddev	1.404	3.528	1.218	.0963	.6388	.86
%RSD	1.6971	5.5899	12.43	3.5570	7.7887	.56542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.5140	17.291	287.10	981.18	629.43
Stddev	.7624	2.683	2.24	16.69	12.50
%RSD	50.358	15.516	.78193	1.7011	1.9855
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6314.2	4269.7	54734.	8395.2
Stddev	9.6	9.4	235.	51.1
%RSD	.15189	.22098	.42921	.60858
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.198%	86.513%	86.071%	90.698%
Range				

Sample Name: PDS 240-81810-a-1-g Acquired: 7/12/2017 23:01:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56.732	21347.	2344.0	1151.8	2233.2	45.434
Stddev	.540	84.	14.9	4.7	7.7	.779
%RSD	.95219	.39135	.63709	.40611	.34514	1.7144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4562700.	57.63	555.14	381.19	439.78	90386.
Stddev	42498.	.31	5.88	1.76	1.80	304.
%RSD	.93142	.5424	1.0599	.46284	.40840	.33644
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	58036.	1429.1	148710.	2478.0	980.63	58602.
Stddev	224.	6.4	808.	8.7	8.11	273.
%RSD	.38608	.44486	.54322	.34944	.82750	.46555
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: PDS 240-81810-a-1-g Acquired: 7/12/2017 23:01:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	894.30	658.11	559.8	2212.7	2181.2	1691.7
Stddev	7.01	9.32	9.5	14.5	23.7	10.1
%RSD	.78434	1.4156	1.691	.65583	1.0847	.59838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1852.5	550.73	1857.8	5676.0	3581.5
Stddev	16.3	4.14	12.4	29.3	5.5
%RSD	.88195	.75171	.66532	.51630	.15457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4868.2	3689.5	48396.	8058.9
Stddev	11.6	3.4	136.	22.8
%RSD	.23774	.09108	.28130	.28321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	57.978%	74.757%	76.105%	87.065%
Range				

Sample Name: 240-81810-a-1-h ms Acquired: 7/12/2017 23:05:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.920	24787.	2263.9	1110.2	2153.5	45.478
Stddev	.488	65.	11.4	3.4	8.7	.230
%RSD	.88890	.26423	.50496	.30378	.40522	.50571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4737200.	56.17	526.75	434.02	448.34	87122.
Stddev	60546.	.40	6.49	2.00	2.86	273.
%RSD	1.2781	.7059	1.2329	.46033	.63682	.31338
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	57612.	1414.7	151140.	2464.3	900.44	57707.
Stddev	220.	5.7	797.	26.7	8.27	291.
%RSD	.38215	.40130	.52716	1.0848	.91790	.50461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-1-h ms Acquired: 7/12/2017 23:05:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	821.84	536.73	471.3	2128.9	2003.8	1713.8
Stddev	8.47	1.82	3.0	6.0	19.9	9.5
%RSD	1.0311	.33924	.6293	.28025	.99490	.55309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1740.1	540.10	1157.8	9530.3	3729.2
Stddev	13.9	4.93	6.3	36.2	15.4
%RSD	.80065	.91336	.54792	.37935	.41398
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4817.5	3653.7	48078.	7897.8
Stddev	5.9	6.4	148.	14.7
%RSD	.12162	.17393	.30864	.18587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	57.373%	74.032%	75.604%	85.325%
Range				

Sample Name: 240-81810-a-1-i msd Acquired: 7/12/2017 23:09:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	57.850	23025.	2358.1	1159.8	2253.5	46.195
Stddev	.579	217.	30.7	12.5	21.3	.547
%RSD	1.0009	.94113	1.3031	1.0784	.94375	1.1847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4992400.	58.40	546.47	407.44	419.28	81358.
Stddev	57273.	1.05	10.59	.49	2.72	746.
%RSD	1.1472	1.800	1.9384	.12011	.64804	.91636
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	59376.	1484.9	151910.	2601.8	927.52	59396.
Stddev	739.	15.4	1805.	26.3	14.90	633.
%RSD	1.2454	1.0384	1.1883	1.0116	1.6060	1.0654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-1-i msd Acquired: 7/12/2017 23:09:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	797.27	548.17	492.2	2218.7	2080.1	1758.4
Stddev	15.38	5.56	7.6	19.1	41.2	1.9
%RSD	1.9294	1.0134	1.541	.86189	1.9816	.10649
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1812.2	556.99	1157.1	9954.6	3878.7
Stddev	27.9	8.36	17.5	68.7	46.0
%RSD	1.5397	1.5014	1.5136	.69011	1.1847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4750.4	3621.8	47348.	7847.0
Stddev	16.9	2.2	27.	42.6
%RSD	.35494	.06067	.05796	.54236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	56.575%	73.385%	74.456%	84.777%
Range				

Sample Name: 240-81810-a-3-o Acquired: 7/12/2017 23:13:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.54934	51056.	178.38	103.32	463.96	4.7664
Stddev	.44609	214.	4.93	2.36	.79	.1844
%RSD	81.204	.41942	2.7612	2.2855	.17119	3.8681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3101500.	3.616	34.409	321.94	207.18	87600.
Stddev	21415.	.075	1.101	1.65	1.61	222.
%RSD	.69049	2.066	3.2013	.51381	.77634	.25351
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7594.1	261.11	130050.	1632.7	14.738	3340.2
Stddev	24.3	.86	654.	12.6	.666	17.7
%RSD	.31952	.33071	.50286	.77073	4.5162	.52908
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-3-o Acquired: 7/12/2017 23:13:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	240.05	310.26	16.48	7.5058	42.978	1806.0
Stddev	3.97	4.23	2.20	3.6798	1.898	11.2
%RSD	1.6543	1.3631	13.33	49.027	4.4171	.61952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.6474	131.90	679.46	6019.1	2284.3
Stddev	1.5150	4.11	9.09	140.8	23.4
%RSD	91.958	3.1149	1.3385	2.3386	1.0261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5290.7	4007.9	51837.	8419.4
Stddev	19.8	6.1	259.	36.6
%RSD	.37493	.15136	.50041	.43473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	63.009%	81.208%	81.515%	90.961%
Range				

Sample Name: 240-81810-a-5-g Acquired: 7/12/2017 23:17:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.50114	40283.	89.009	78.481	374.88	4.4927
Stddev	.46879	86.	4.088	1.131	.74	.0774
%RSD	93.544	.21330	4.5933	1.4409	.19751	1.7225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3467400.	3.636	30.741	184.00	259.51	88060.
Stddev	5052.	.221	.478	.54	1.29	99.
%RSD	.14568	6.065	1.5550	.29286	.49883	.11287
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6067.9	273.59	163810.	2951.4	14.035	4280.5
Stddev	35.0	1.16	231.	28.8	.499	29.2
%RSD	.57664	.42248	.14082	.97477	3.5569	.68214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-5-g Acquired: 7/12/2017 23:17:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	176.68	226.06	18.63	.63834	43.517	1298.7
Stddev	4.22	2.25	2.49	1.0203	.773	4.5
%RSD	2.3864	.99452	13.38	159.84	1.7764	.34548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.0740	113.84	715.77	4065.4	2355.9
Stddev	1.7618	2.51	16.22	76.4	6.9
%RSD	57.313	2.2046	2.2660	1.8783	.29300
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5164.0	3950.6	51348.	8453.7
Stddev	15.4	8.2	121.	13.5
%RSD	.29891	.20836	.23468	.15998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	61.500%	80.047%	80.747%	91.331%
Range				

Sample Name: 240-81810-a-7-g Acquired: 7/12/2017 23:22:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09561	70070.	271.96	96.666	543.49	4.8696
Stddev	.30608	477.	5.77	2.066	2.22	.1773
%RSD	320.13	.68068	2.1206	2.1368	.40889	3.6403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2727200.	3.480	36.889	241.45	380.02	98613.
Stddev	25702.	.111	.964	1.00	1.45	486.
%RSD	.94245	3.194	2.6126	.41402	.38102	.49241
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6856.6	214.66	133090.	2962.5	12.700	4932.2
Stddev	48.9	1.74	579.	6.2	.396	23.7
%RSD	.71369	.80914	.43520	.20955	3.1205	.48024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-7-g Acquired: 7/12/2017 23:22:07 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	205.32	846.13	15.90	-.51711	47.209	2415.5
Stddev	2.91	13.69	.26	1.9644	1.878	6.9
%RSD	1.4176	1.6184	1.656	379.87	3.9782	.28506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.2284	155.15	1509.2	9802.5	1918.1
Stddev	1.9714	1.96	27.5	241.1	20.0
%RSD	61.066	1.2652	1.8250	2.4597	1.0420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5398.4	4108.4	52877.	8531.8
Stddev	27.6	14.1	77.	32.8
%RSD	.51087	.34385	.14631	.38423
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	64.292%	83.245%	83.151%	92.175%
Range				

Sample Name: CCV-3141968 Acquired: 7/12/2017 23:26:29 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1003.6	24695.	510.74	5025.6	1981.9	1875.7	49058.	500.2
Stddev	6.0	139.	.39	9.1	10.3	7.2	320.	1.6
%RSD	.59466	.56468	.07671	.18182	.51765	.38186	.65173	.3140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2015.6	2016.4	1993.5	24479.	49546.	4930.7	48794.	2068.5
Stddev	7.4	11.2	10.6	132.	288.	27.5	332.	12.9
%RSD	.36614	.55515	.53056	.53996	.58044	.55756	.68001	.62337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1948.4	49247.	2014.0	491.84	508.0	509.12	5108.9	4991.3
Stddev	8.8	232.	7.1	1.65	3.2	2.45	15.8	29.2
%RSD	.45294	.47163	.35310	.33615	.6287	.48114	.30974	.58572
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/12/2017 23:26:29 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1010.5	1928.8	2034.9	4991.6	4830.4
Stddev	4.1	14.2	6.5	86.5	26.5
%RSD	.40367	.73856	.31856	1.7331	.54779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7137.7	4615.0	58433.	8629.4
Stddev	15.8	10.1	106.	44.2
%RSD	.22103	.21826	.18191	.51188

Sample Name: CCB Acquired: 7/12/2017 23:30:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.43532	1.3328	.75302	7.3779	-.09462	.03912	296.52	.0046
Stddev	.30537	6.6685	.68990	1.2436	.05995	.05055	14.07	.1046
%RSD	70.149	500.34	91.618	16.856	63.359	129.22	4.7468	2256.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13837	.75364	.52094	5.4587	-142.61	-4.6659	-25.149	1.7118
Stddev	.11705	.21953	.28271	2.6097	18.38	.2454	9.857	.0246
%RSD	84.595	29.129	54.268	47.808	12.885	5.2590	39.193	1.4375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0380	110.63	.59891	1.0265	1.028	-.30969	1.1898	2.2511
Stddev	.4933	1.52	.34349	.9657	1.009	.97451	.3202	.2412
%RSD	16.239	1.3746	57.353	94.075	98.17	314.67	26.915	10.714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/12/2017 23:30:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.96146	-1.1669	6.9950	-2.7616	-4.6225
Stddev	.37861	2.8236	.1933	2.6990	6.6050
%RSD	39.379	241.98	2.7641	97.736	142.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8266.0	4864.3	62753.	8822.8
Stddev	31.1	15.1	172.	13.6
%RSD	.37595	.31112	.27382	.15360

Sample Name: 240-81810-a-9-g Acquired: 7/12/2017 23:34:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.89675	139480.	222.93	122.78	919.08	7.8230
Stddev	.25077	600.	3.20	1.19	4.24	.1335
%RSD	27.964	.43015	1.4344	.96904	.46145	1.7069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 1276900.	5.846	100.07	443.26	401.46	204690.
Stddev	10399.	.141	1.99	1.59	1.79	889.
%RSD	.81439	2.421	1.9917	.35811	.44598	.43423
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18156.	249.31	137430.	4604.5	17.531	2535.0
Stddev	113.	2.32	738.	44.2	.414	22.8
%RSD	.62114	.92929	.53692	.95969	2.3603	.89838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-9-g Acquired: 7/12/2017 23:34:55 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	396.11	370.84	4.358	21.510	45.693	2174.5
Stddev	4.35	.23	.502	2.590	1.032	9.8
%RSD	1.0986	.06233	11.51	12.042	2.2582	.45206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.11379	372.18	1163.3	3887.7	1065.4
Stddev	2.7101	1.56	21.6	47.1	1.9
%RSD	2381.6	.41883	1.8599	1.2119	.17781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5911.5	4451.1	57212.	9045.2
Stddev	14.0	4.7	235.	36.8
%RSD	.23698	.10527	.41070	.40732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	70.402%	90.189%	89.968%	97.721%
Range				

Sample Name: 240-81810-a-11-g Acquired: 7/12/2017 23:39:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.42157	39653.	111.66	110.10	823.33	4.1865
Stddev	.32020	115.	4.36	.85	1.67	.1874
%RSD	75.954	.29006	3.9008	.76962	.20231	4.4761
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4289000.	3.903	26.342	178.62	207.59	64052.
Stddev	18724.	.152	.440	.75	1.00	31.
%RSD	.43655	3.902	1.6699	.42163	.48018	.04802
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4627.1	328.58	127720.	1967.7	18.769	5521.8
Stddev	16.4	5.16	184.	2.0	.324	18.7
%RSD	.35359	1.5696	.14395	.10200	1.7239	.33942
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-11-g Acquired: 7/12/2017 23:39:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	212.76	177.59	19.89	4.9074	38.594	1660.4
Stddev	2.50	2.43	1.85	2.9495	1.607	4.5
%RSD	1.1758	1.3708	9.322	60.103	4.1644	.26975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.7348	142.73	1749.7	6508.2	2842.2
Stddev	2.2907	4.83	19.6	143.7	20.8
%RSD	61.334	3.3857	1.1192	2.2077	.73125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4972.9	3818.1	49572.	8157.4
Stddev	16.5	4.7	33.	13.2
%RSD	.33140	.12377	.06564	.16189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	59.224%	77.364%	77.954%	88.130%
Range				

Sample Name: 240-81810-a-13-g Acquired: 7/12/2017 23:43:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.07818	36855.	219.41	73.922	283.09	3.6563
Stddev	.30873	54.	.94	1.587	.80	.2947
%RSD	394.89	.14687	.42843	2.1461	.28422	8.0595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3252000.	4.190	30.595	256.17	508.81	101940.
Stddev	6601.	.014	.778	1.21	1.80	127.
%RSD	.20299	.3363	2.5417	.47179	.35371	.12446
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6100.5	242.75	108350.	3517.6	17.905	5315.3
Stddev	25.2	.32	454.	14.7	.412	9.3
%RSD	.41244	.13002	.41926	.41894	2.2987	.17479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-13-g Acquired: 7/12/2017 23:43:36 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	226.50	420.71	19.90	1.7866	49.084	1642.7
Stddev	5.89	7.82	1.44	1.6294	2.910	7.4
%RSD	2.6014	1.8590	7.248	91.201	5.9296	.45197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.3226	105.32	1261.1	3803.0	2118.4
Stddev	3.2664	3.09	21.5	38.9	9.6
%RSD	98.311	2.9302	1.7059	1.0228	.45284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5285.6	4010.0	51867.	8400.7
Stddev	21.7	7.6	176.	15.8
%RSD	.41046	.19007	.33909	.18845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	62.948%	81.252%	81.562%	90.758%
Range				

Sample Name: 240-81810-a-15-g Acquired: 7/12/2017 23:47:54 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.34134	50237.	83.177	103.08	723.61	4.7786
Stddev	.44688	114.	1.189	.73	1.71	.0584
%RSD	130.92	.22684	1.4299	.70947	.23671	1.2213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2672800.	5.617	35.225	302.53	259.78	80469.
Stddev	11752.	.102	.981	1.76	1.50	307.
%RSD	.43969	1.819	2.7848	.58298	.57775	.38188
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5833.7	201.46	94797.	1696.9	15.547	4774.1
Stddev	28.9	1.08	520.	11.5	.261	20.8
%RSD	.49551	.53546	.54836	.68013	1.6794	.43644
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-15-g Acquired: 7/12/2017 23:47:54 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	227.69	192.49	13.51	7.0982	41.677	1866.5
Stddev	4.40	6.93	2.13	2.6493	1.041	8.2
%RSD	1.9321	3.6007	15.80	37.324	2.4980	.43926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.1800	152.01	1343.2	4658.6	1934.6
Stddev	2.5483	1.90	7.9	44.2	19.3
%RSD	215.95	1.2518	.59094	.94895	.99854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5456.4	4101.5	53326.	8611.7
Stddev	2.1	4.2	195.	47.8
%RSD	.03878	.10187	.36578	.55493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	64.983%	83.105%	83.857%	93.037%
Range				

Sample Name: 240-81810-a-17-g Acquired: 7/12/2017 23:52:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.4559	23048.	73.976	82.961	946.03	4.2169
Stddev	.5539	222.	2.622	2.491	6.10	.0762
%RSD	38.046	.96362	3.5447	3.0031	.64495	1.8070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 4152600.	2.139	27.532	133.72	237.67	55799.
Stddev	37837.	.100	.865	1.26	2.63	346.
%RSD	.91116	4.651	3.1423	.94587	1.1079	.62068
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4099.0	297.09	104750.	1924.5	11.545	3483.1
Stddev	47.5	3.51	759.	10.2	.270	16.8
%RSD	1.1583	1.1805	.72422	.53068	2.3344	.48253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-17-g Acquired: 7/12/2017 23:52:11 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	189.25	111.13	17.12	1.3854	37.720	717.88
Stddev	6.26	2.10	2.06	3.9341	2.982	3.92
%RSD	3.3082	1.8904	12.03	283.97	7.9045	.54601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.3470	78.810	695.76	4095.0	2592.1
Stddev	1.4956	3.461	16.03	45.5	24.4
%RSD	111.03	4.3910	2.3042	1.1105	.94124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5037.9	3834.1	50208.	8150.9
Stddev	34.3	18.2	138.	35.2
%RSD	.68028	.47402	.27485	.43195
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	59.998%	77.687%	78.953%	88.059%
Range				

Sample Name: 240-81810-a-19-g Acquired: 7/12/2017 23:56:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.82231	78275.	52.214	86.468	585.25	4.7396
Stddev	.27369	146.	4.504	.743	.28	.2606
%RSD	33.282	.18706	8.6261	.85979	.04845	5.4991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2674300.	2.875	45.138	191.19	173.22	91961.
Stddev	12326.	.168	.854	.75	.67	170.
%RSD	.46092	5.844	1.8911	.39075	.38856	.18517
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11026.	238.28	95084.	2398.1	8.0891	2410.5
Stddev	16.	2.98	72.	4.8	.3843	16.5
%RSD	.14839	1.2525	.07599	.20071	4.7505	.68307
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-19-g Acquired: 7/12/2017 23:56:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	192.99	136.88	13.90	3.3652	36.260	1384.9
Stddev	4.95	1.71	3.25	2.6816	.964	3.9
%RSD	2.5644	1.2457	23.37	79.686	2.6575	.28184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.18120	176.48	607.90	3260.0	1593.7
Stddev	1.9790	2.13	24.26	23.4	11.2
%RSD	1092.2	1.2051	3.9914	.71694	.70375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5411.5	4128.7	53185.	8549.0
Stddev	12.9	6.1	142.	13.2
%RSD	.23841	.14793	.26666	.15406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	64.448%	83.656%	83.635%	92.360%
Range				

Sample Name: 240-81810-a-21-e Acquired: 7/13/2017 0:00:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.0274	49394.	211.19	67.807	725.88	2.3428
Stddev	.3036	451.	6.23	.930	4.81	.0735
%RSD	29.552	.91375	2.9513	1.3709	.66210	3.1378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 796670.	3.134	38.887	203.51	113.07	166520.
Stddev	6152.	.054	.951	.62	1.51	856.
%RSD	.77216	1.723	2.4443	.30632	1.3363	.51423
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	720000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5488.3	94.594	128320.	2598.5	36.183	1054.7
Stddev	51.8	.501	806.	15.8	.682	9.5
%RSD	.94341	.52937	.62789	.60935	1.8851	.90421
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-21-e Acquired: 7/13/2017 0:00:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	162.55	134.46	4.724	5.4247	33.492	1810.7
Stddev	2.32	2.07	2.046	4.8220	.752	8.8
%RSD	1.4292	1.5431	43.32	88.889	2.2453	.48357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-1.9108	151.55	554.06	4117.2	1040.0
Stddev	1.1695	2.33	5.14	30.8	8.6
%RSD	61.202	1.5353	.92828	.74830	.82550
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6266.3	4391.6	56176.	8773.3
Stddev	10.4	5.8	138.	25.5
%RSD	.16612	.13186	.24528	.29060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.628%	88.984%	88.338%	94.784%
Range				

Sample Name: 240-81810-a-22-b Acquired: 7/13/2017 0:05:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.30394	48197.	145.08	50.559	529.05	4.0451
Stddev	.22231	220.	4.07	.552	2.38	.1030
%RSD	73.142	.45571	2.8050	1.0924	.45018	2.5469
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2690700.	13.64	32.764	370.58	605.97	127760.
Stddev	26115.	.12	.629	2.31	3.81	670.
%RSD	.97057	.9071	1.9198	.62266	.62811	.52409
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5441.0	200.97	86982.	2399.5	20.189	2504.6
Stddev	21.4	1.51	398.	15.4	.325	14.4
%RSD	.39385	.75200	.45783	.63981	1.6112	.57661
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-22-b Acquired: 7/13/2017 0:05:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	332.04	619.85	15.28	-2.2811	54.733	1347.3
Stddev	3.87	8.70	4.61	4.2271	2.610	4.9
%RSD	1.1652	1.4033	30.13	185.31	4.7681	.36491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.38484	114.19	1610.8	4285.1	1881.9
Stddev	2.8169	2.24	15.1	51.1	14.3
%RSD	731.97	1.9613	.94009	1.1917	.76022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5448.4	4072.0	52629.	8397.6
Stddev	9.8	2.7	187.	26.3
%RSD	.17954	.06513	.35567	.31268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	64.888%	82.507%	82.761%	90.725%
Range				

Sample Name: 240-81810-a-23-g Acquired: 7/13/2017 0:09:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21650	64966.	77.391	124.57	752.04	4.8416
Stddev	.68826	175.	2.199	1.37	1.89	.0324
%RSD	317.90	.26908	2.8413	1.0965	.25082	.66957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2414900.	19.90	38.618	345.60	294.24	119390.
Stddev	21221.	.18	.210	2.52	4.68	150.
%RSD	.87873	.9089	.54460	.73056	1.5911	.12603
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6663.9	179.20	114480.	2478.0	15.269	4099.9
Stddev	62.9	1.42	13.	15.6	.140	17.3
%RSD	.94423	.78998	.01125	.63104	.91855	.42311
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-23-g Acquired: 7/13/2017 0:09:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	414.77	764.40	11.67	.23323	46.112	2832.6
Stddev	4.33	6.52	1.48	3.0360	.586	16.4
%RSD	1.0451	.85281	12.70	1301.7	1.2709	.58007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.66264	142.56	4341.5	18786.	1766.5
Stddev	2.0139	2.16	36.6	321.	1.5
%RSD	303.92	1.5138	.84321	1.7074	.08562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5490.5	4142.2	53041.	8533.6
Stddev	10.5	13.5	374.	12.0
%RSD	.19188	.32560	.70504	.14047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.389%	83.930%	83.408%	92.194%
Range				

Sample Name: 240-81810-a-25-d Acquired: 7/13/2017 0:13:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.80485	52828.	31.684	22.861	352.30	1.6890	121340.
Stddev	.29283	456.	2.366	.672	2.91	.0460	1034.
%RSD	36.384	.86307	7.4673	2.9414	.82740	2.7260	.85227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.195	15.237	99.266	55.176	62561.	3332.1	35.833
Stddev	.067	.716	.832	.434	472.	29.3	1.068
%RSD	3.035	4.6997	.83795	.78618	.75374	.88002	2.9804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17814.	816.84	3.8166	580.03	56.686	119.04	2.989
Stddev	202.	4.97	.2679	11.80	1.790	1.43	1.895
%RSD	1.1366	.60828	7.0203	2.0341	3.1579	1.2004	63.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81810-a-25-d Acquired: 7/13/2017 0:13:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1059	27.619	1080.2	-2.6322	123.54	295.68	3217.5
Stddev	1.1081	1.059	9.9	.2966	2.31	8.07	37.3
%RSD	52.617	3.8340	.92084	11.266	1.8725	2.7309	1.1581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	159.51
Stddev	4.44
%RSD	2.7858
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7310.8	4719.1	60279.	8896.5
Stddev	27.2	11.7	349.	78.1
%RSD	.37256	.24807	.57941	.87751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.068%	95.620%	94.790%	96.115%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 0:17:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1001.8	25101.	512.72	5038.5	2002.2	1878.7	49339.	502.4
Stddev	6.2	171.	1.96	7.0	9.5	5.2	217.	1.9
%RSD	.61717	.68191	.38183	.13946	.47323	.27839	.43995	.3708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2031.8	2017.5	1994.7	24821.	49915.	4970.6	49381.	2065.1
Stddev	8.0	11.3	15.8	78.	171.	16.0	85.	13.3
%RSD	.39257	.56012	.79395	.31564	.34172	.32243	.17122	.64207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1954.9	49651.	2027.3	493.96	506.1	512.12	5140.8	4966.1
Stddev	10.5	157.	7.2	2.80	1.7	3.32	28.3	57.3
%RSD	.53538	.31533	.35348	.56640	.3402	.64863	.55002	1.1540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 0:17:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1017.5	1960.7	2054.3	5067.5	4882.6
Stddev	9.7	5.5	10.7	81.6	26.0
%RSD	.95635	.28230	.51893	1.6097	.53310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7100.8	4599.9	58709.	8593.5
Stddev	5.2	5.4	210.	13.9
%RSD	.07282	.11769	.35824	.16166

Sample Name: CCB Acquired: 7/13/2017 0:22:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.37213	6.8599	.05506	6.4335	-.02467	.01458	262.95	-.0062
Stddev	.49956	15.762	1.3417	.6914	.16191	.15462	2.47	.0082
%RSD	134.24	229.77	2436.8	10.747	656.34	1060.5	.93897	130.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14731	.56042	.31523	6.1152	-154.38	-5.8131	-2.0681	1.6605
Stddev	.07059	.06567	.26569	.7648	26.28	1.2077	11.530	.0354
%RSD	47.917	11.718	84.286	12.507	17.024	20.775	557.52	2.1344
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0796	76.442	-.08088	-.55971	2.378	-.15900	1.0960	2.3544
Stddev	.2403	1.768	.08901	1.9400	1.652	2.6883	.3752	.2934
%RSD	7.8039	2.3132	110.06	346.61	69.47	1690.8	34.232	12.460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 0:22:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.19747	2.1530	6.9613	9.2416	-2.1071
Stddev	.56369	.1782	.1761	5.5064	5.1994
%RSD	285.45	8.2788	2.5290	59.583	246.75
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8287.1	4866.5	62988.	8773.0
Stddev	17.3	11.8	147.	1.7
%RSD	.20913	.24155	.23386	.01939

Sample Name: 240-81810-a-26-f Acquired: 7/13/2017 0:26:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.95636	44776.	97.211	103.97	421.49	4.0919
Stddev	.52873	235.	6.642	2.13	1.28	.3066
%RSD	55.285	.52416	6.8329	2.0466	.30402	7.4936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3232900.	2.415	33.290	186.18	233.93	81609.
Stddev	8229.	.179	.825	1.26	.84	280.
%RSD	.25455	7.430	2.4769	.67718	.35758	.34292
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9023.1	264.50	180640.	2599.4	10.147	3817.6
Stddev	16.2	1.19	541.	12.2	.274	17.6
%RSD	.17976	.44844	.29929	.47005	2.7049	.46218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-26-f Acquired: 7/13/2017 0:26:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	192.56	283.15	15.13	.03861	47.732	1351.5
Stddev	3.44	7.19	2.75	2.3268	.478	2.1
%RSD	1.7844	2.5376	18.13	6026.6	1.0018	.15526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	3.1234	109.91	689.30	4047.3	2363.3
Stddev	2.0196	3.22	11.65	41.9	9.1
%RSD	64.660	2.9303	1.6906	1.0342	.38500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5205.0	3955.9	51276.	8262.1
Stddev	20.6	9.8	200.	26.0
%RSD	.39571	.24864	.38954	.31525
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	61.989%	80.155%	80.633%	89.260%
Range				

Sample Name: 240-81810-a-28-f Acquired: 7/13/2017 0:30:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.11909	28947.	32.607	55.125	430.63	2.3824
Stddev	.14260	116.	2.265	.417	1.11	.2376
%RSD	119.74	.39994	6.9473	.75660	.25864	9.9729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 2558300.	2.891	24.858	237.25	252.09	79818.
Stddev	3130.	.145	.084	1.28	1.19	262.
%RSD	.12233	5.032	.33936	.53814	.47125	.32796
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3952.4	163.25	122650.	2303.1	24.150	3735.7
Stddev	37.0	.75	263.	5.2	.111	14.8
%RSD	.93618	.46093	.21472	.22421	.45807	.39730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-28-f Acquired: 7/13/2017 0:30:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	197.95	308.12	19.38	-1.4748	38.030	1327.8
Stddev	1.27	2.22	2.37	1.3497	2.042	1.7
%RSD	.64260	.72041	12.21	91.516	5.3692	.12793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.28655	91.193	1429.0	4082.8	1565.8
Stddev	2.9836	2.072	17.7	50.5	3.6
%RSD	1041.2	2.2724	1.2380	1.2358	.23288
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5467.4	4042.7	51932.	8417.0
Stddev	25.0	12.8	157.	18.0
%RSD	.45683	.31598	.30297	.21436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.114%	81.913%	81.664%	90.934%
Range				

Sample Name: 240-81810-a-30-f Acquired: 7/13/2017 0:35:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.58872	28276.	59.032	64.380	472.72	3.6618
Stddev	.70026	39.	3.422	1.006	1.41	.1319
%RSD	118.95	.13658	5.7970	1.5621	.29754	3.6029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 3491600.	3.045	27.314	229.73	744.05	83026.
Stddev	21660.	.067	.387	1.69	5.84	339.
%RSD	.62034	2.195	1.4155	.73371	.78490	.40830
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	800000.					
Low Limit	-500000.					

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4098.6	235.93	121320.	3308.9	15.521	3823.3
Stddev	9.4	1.83	416.	50.5	.500	8.2
%RSD	.22870	.77696	.34288	1.5270	3.2223	.21414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 240-81810-a-30-f Acquired: 7/13/2017 0:35:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	222.10	183.16	31.78	7.2094	39.499	1059.8
Stddev	4.67	.54	.52	4.2828	.204	4.4
%RSD	2.1045	.29654	1.630	59.406	.51699	.41255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.56716	112.14	1760.9	7127.7	2301.2
Stddev	1.6225	.92	28.6	151.7	7.8
%RSD	286.07	.82012	1.6245	2.1288	.34016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5175.4	3925.3	51051.	8218.2
Stddev	15.3	7.4	221.	1.2
%RSD	.29611	.18872	.43376	.01425
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	61.636%	79.534%	80.279%	88.787%
Range				

Sample Name: 240-81810-a-32-d Acquired: 7/13/2017 0:39:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5975	147750.	47.048	87.474	814.61	6.5527	253910.
Stddev	.0626	696.	1.411	1.263	3.11	.0588	1144.
%RSD	3.9181	.47126	2.9980	1.4444	.38144	.89768	.45067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.655	77.517	297.96	203.59	157600.	19495.	196.13
Stddev	.070	1.317	2.94	2.10	634.	112.	1.35
%RSD	1.918	1.6983	.98669	1.0328	.40211	.57334	.68929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	92682.	2949.0	4.5721	1938.5	243.57	183.57	3.095
Stddev	522.	31.1	.1784	9.9	4.33	2.35	1.917
%RSD	.56365	1.0554	3.9019	.51187	1.7782	1.2803	61.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-81810-a-32-d Acquired: 7/13/2017 0:39:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.0611	36.092	1651.8	-4.4808	283.89	847.87	3196.8
Stddev	2.7696	.894	13.4	1.3283	3.05	5.90	22.2
%RSD	134.37	2.4772	.81142	29.645	1.0729	.69619	.69577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	299.88
Stddev	3.63
%RSD	1.2104
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6737.2	4830.1	61941.	9434.8
Stddev	16.0	7.0	439.	29.8
%RSD	.23766	.14561	.70931	.31547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.236%	97.868%	97.404%	101.93%
Range				

Sample Name: mb 240-286657/1-a Acquired: 7/13/2017 0:43:42 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.15813	7.3307	-.26879	6.1200	1.3240	.03769	321.54	-.1629
Stddev	.17631	24.541	1.2622	.1619	.1155	.07257	17.42	.0709
%RSD	111.50	334.77	469.60	2.6453	8.7268	192.54	5.4184	43.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03609	1.0184	4.5571	28.610	-198.52	-7.1872	102.31	.02972
Stddev	.05195	.2221	.1313	3.928	32.23	1.0860	5.28	.02401
%RSD	143.96	21.807	2.8808	13.729	16.238	15.111	5.1653	80.777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.25331	132.35	.67700	.30445	1.846	-1.6149	.16305	.99361
Stddev	.30551	7.48	.32912	1.1417	.384	.6709	.31860	.11297
%RSD	120.61	5.6540	48.614	375.01	20.77	41.547	195.39	11.370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286657/1-a Acquired: 7/13/2017 0:43:42 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.31748	-2.3804	-.55674	66.672	3.1548
Stddev	.75797	1.0830	.14555	5.906	2.5910
%RSD	238.75	45.498	26.143	8.8578	82.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8253.0	4880.9	63007.	8869.4
Stddev	8.2	6.7	162.	58.0
%RSD	.09881	.13744	.25750	.65336

Sample Name: lcs 240-286657/2-a Acquired: 7/13/2017 0:48:06 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.143	2078.2	2175.9	1070.6	2034.4	48.648	51002.	53.97
Stddev	.303	18.5	22.8	10.9	12.6	.362	239.	.45
%RSD	.55900	.89192	1.0480	1.0203	.61894	.74324	.46840	.8291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	512.80	207.35	264.01	1045.6	50906.	1003.8	50527.	528.51
Stddev	5.87	1.07	.77	5.9	242.	7.9	814.	2.72
%RSD	1.1450	.51736	.29348	.55967	.47517	.78265	1.6105	.51527
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	988.70	50373.	521.97	509.61	532.0	2184.5	2069.8	1008.6
Stddev	11.52	366.	4.61	5.44	3.8	22.8	24.9	3.7
%RSD	1.1650	.72697	.88241	1.0668	.7103	1.0430	1.2015	.36683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286657/2-a Acquired: 7/13/2017 0:48:06 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2055.9	512.94	521.67	1179.1	1009.9
Stddev	22.2	3.24	6.10	22.9	3.7
%RSD	1.0798	.63182	1.1698	1.9405	.36648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7265.8	4589.4	59136.	8678.2
Stddev	44.9	23.6	204.	18.8
%RSD	.61766	.51401	.34498	.21634

Sample Name: 240-82060-o-21-a Acquired: 7/13/2017 0:52:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.09553	17.660	2.7524	387.68	45.218	.02541	115420.
Stddev	.21531	21.233	1.0357	5.12	.050	.11876	449.
%RSD	225.38	120.23	37.628	1.3194	.10987	467.41	.38904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1246	.83859	1.0328	-.00022	255.42	3011.3	7.1483
Stddev	.1351	.07684	.3850	.09963	1.03	39.4	.1964
%RSD	108.5	9.1626	37.281	45976.	.40458	1.3088	2.7471
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27783.	187.31	5.4587	33032.	3.3732	2.6786	4.684
Stddev	258.	.95	.4940	116.	.2908	.7263	.997
%RSD	.92778	.50583	9.0490	.34982	8.6217	27.115	21.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-o-21-a Acquired: 7/13/2017 0:52:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6236	.90346	.95964	2.7060	-1.0839	-.38732	5593.4
Stddev	3.0599	.24575	.26054	.2537	1.6420	.01391	64.9
%RSD	116.63	27.201	27.150	9.3771	151.49	3.5908	1.1598
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	605.37
Stddev	6.95
%RSD	1.1475
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7387.7	4586.6	59046.	8718.4
Stddev	15.6	11.1	25.	6.7
%RSD	.21094	.24163	.04150	.07675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.983%	92.934%	92.852%	94.190%
Range				

Sample Name: SD 240-82060-o-21a@5 Acquired: 7/13/2017 0:56:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28405	-6.4689	-.17832	72.924	8.6661	.05297	22823.	.0151
Stddev	.55767	13.394	.92468	.771	.1385	.04589	152.	.1250
%RSD	196.33	207.05	518.56	1.0577	1.5986	86.637	.66620	828.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02485	.65335	.48842	51.644	394.76	-4.6532	5537.5	36.935
Stddev	.20996	.08464	.92131	2.455	11.83	2.2554	33.2	.307
%RSD	844.86	12.955	188.63	4.7546	2.9967	48.469	.59961	.83197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.70847	6499.3	.92993	-.42503	1.591	.98572	.03498	.35122
Stddev	.13192	58.0	.34998	1.4684	1.237	2.2612	.11641	.05087
%RSD	18.621	.89280	37.635	345.49	77.74	229.40	332.77	14.483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-82060-o-21a@5 Acquired: 7/13/2017 0:56:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.57481	1.1932	-1.6509	1102.6	119.39
Stddev	.36715	1.8484	.0911	5.3	5.03
%RSD	63.873	154.91	5.5150	.47760	4.2099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8038.0	4796.8	62041.	8809.3
Stddev	11.2	8.2	142.	36.5
%RSD	.13933	.17154	.22819	.41477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.729%	97.193%	97.562%	95.172%
Range				

Sample Name: PDS 240-82060-o-21-a Acquired: 7/13/2017 1:00:48 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.267	2100.7	2208.8	1463.6	2086.0	47.901	161790.
Stddev	.284	38.0	14.7	8.7	5.7	.341	571.
%RSD	.53253	1.8078	.66345	.59672	.27528	.71132	.35276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.14	525.03	206.69	261.68	1266.8	54356.	1029.9
Stddev	.41	3.28	1.34	1.30	4.0	272.	3.0
%RSD	.7559	.62563	.64698	.49609	.31703	.50069	.29588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	75197.	706.06	1016.8	82507.	526.87	504.89	519.4
Stddev	487.	4.66	9.1	411.	2.64	3.87	6.5
%RSD	.64804	.65991	.89591	.49850	.50071	.76719	1.252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-82060-o-21-a Acquired: 7/13/2017 1:00:48 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2196.4	2157.8	1026.4	2060.4	504.30	526.74	6497.9
Stddev	14.7	18.9	3.9	8.2	1.92	3.28	24.7
%RSD	.66896	.87601	.37726	.39695	.38064	.62323	.38054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1575.2
Stddev	4.4
%RSD	.27941
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6953.9	4507.7	57848.	8701.4
Stddev	9.8	11.7	227.	37.6
%RSD	.14084	.25936	.39321	.43187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.817%	91.335%	90.968%	94.007%
Range				

Sample Name: 240-82060-o-21-b ms Acquired: 7/13/2017 1:04:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.175	2093.9	2200.9	1448.7	2079.9	48.668	165390.
Stddev	.617	17.7	18.4	10.9	6.9	.124	703.
%RSD	1.1392	.84680	.83709	.75169	.33078	.25396	.42490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.65	513.66	204.77	260.92	1256.7	54531.	1021.4
Stddev	.84	3.81	1.52	1.34	10.7	131.	4.2
%RSD	1.564	.74271	.74180	.51260	.84964	.24001	.41520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	75987.	706.24	992.99	83780.	523.18	498.66	541.3
Stddev	360.	3.36	10.27	372.	1.39	2.02	3.9
%RSD	.47396	.47599	1.0348	.44430	.26499	.40453	.7277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-o-21-b ms Acquired: 7/13/2017 1:04:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2183.1	2091.3	1005.4	2023.0	503.36	522.50	6612.0
Stddev	12.1	11.4	6.4	9.3	6.22	3.21	25.9
%RSD	.55585	.54514	.63348	.45921	1.2362	.61425	.39246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1597.0
Stddev	14.3
%RSD	.89834
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6896.0	4458.7	57422.	8593.7
Stddev	12.6	10.9	210.	12.1
%RSD	.18309	.24515	.36521	.14027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.128%	90.342%	90.298%	92.843%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 1:08:44 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	999.97	24705.	512.15	5051.8	1988.4	1914.6	48945.	503.7
Stddev	2.22	122.	2.81	7.8	12.6	16.0	369.	1.3
%RSD	.22214	.49282	.54823	.15419	.63435	.83761	.75324	.2604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2014.1	1988.3	1978.3	24384.	49739.	4908.2	48734.	2024.1
Stddev	6.4	6.6	9.0	142.	350.	26.7	341.	5.5
%RSD	.31768	.33060	.45504	.58225	.70340	.54364	.69917	.27045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1944.2	49665.	2015.1	491.00	512.6	512.30	5096.4	4949.0
Stddev	6.4	404.	8.3	2.84	2.5	1.23	14.0	38.8
%RSD	.33053	.81346	.41410	.57917	.4864	.24086	.27511	.78355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 1:08:44 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1002.6	1937.6	2039.3	4930.1	4850.1
Stddev	7.5	13.2	4.2	39.8	30.9
%RSD	.74976	.67982	.20445	.80791	.63717
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7088.1	4575.3	58446.	8546.3
Stddev	17.8	6.2	118.	56.5
%RSD	.25146	.13657	.20187	.66161

Sample Name: CCB Acquired: 7/13/2017 1:12:47 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08337	-.73243	2.7461	9.0637	-.10032	.05429	236.37	-.0748
Stddev	.49101	26.239	.2929	1.0913	.16605	.06646	1.55	.1282
%RSD	588.98	3582.4	10.667	12.040	165.51	122.41	.65776	171.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10814	.66889	.54830	5.0671	-182.38	-6.5553	8.1672	1.7212
Stddev	.06733	.44491	.38490	.4248	18.92	1.4830	17.539	.0088
%RSD	62.258	66.515	70.198	8.3835	10.375	22.623	214.75	.50967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.4046	68.333	.67144	.32500	1.114	-.88941	1.0535	2.1904
Stddev	.1042	7.199	.17711	1.1948	1.327	1.2372	.3060	.3154
%RSD	3.0597	10.535	26.378	367.64	119.2	139.11	29.045	14.400
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 1:12:47 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.12231	-1.2595	6.8634	-4.1712	-2.3936
Stddev	.20946	.2280	.0028	5.7059	1.6786
%RSD	171.26	18.104	.04019	136.79	70.129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8242.3	4845.7	62564.	8804.0
Stddev	6.1	8.5	163.	21.1
%RSD	.07371	.17495	.25979	.23927

Sample Name: 240-82060-o-21-c msd Acquired: 7/13/2017 1:17:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.069	2037.3	2176.0	1437.0	2050.7	49.331	161170.
Stddev	.258	3.5	9.8	4.1	6.4	.358	408.
%RSD	.47737	.17031	.45159	.28472	.31408	.72602	.25284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.02	507.36	202.49	258.20	1228.1	53884.	1011.0
Stddev	.31	2.18	.95	.48	3.3	282.	6.6
%RSD	.5931	.42933	.47140	.18445	.26792	.52388	.65053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	74568.	693.38	977.43	82601.	517.03	493.90	532.0
Stddev	548.	.68	6.86	533.	.85	3.21	1.7
%RSD	.73499	.09822	.70161	.64584	.16346	.64923	.3114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-o-21-c msd Acquired: 7/13/2017 1:17:13 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2159.5	2068.2	1000.3	1997.4	495.96	516.84	6330.6
Stddev	10.3	10.4	1.3	5.5	1.96	1.12	17.8
%RSD	.47550	.50511	.12598	.27353	.39459	.21719	.28157
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1569.7
Stddev	7.1
%RSD	.45070
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6953.6	4493.4	57678.	8649.3
Stddev	8.4	5.3	67.	51.3
%RSD	.12019	.11730	.11597	.59258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.813%	91.045%	90.700%	93.444%
Range				

Sample Name: 240-82060-l-21-a Acquired: 7/13/2017 1:21:10 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12887	292.48	9.3932	415.58	52.920	-.05439	133810.
Stddev	.66761	11.93	.7660	2.52	.098	.06300	219.
%RSD	518.06	4.0781	8.1553	.60553	.18471	115.83	.16366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0732	3.7179	1.6433	2.0699	2112.5	3295.5	9.2436
Stddev	.0443	.2165	.2548	.7270	8.6	19.4	1.3966
%RSD	60.59	5.8243	15.506	35.125	.40527	.58882	15.109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31811.	612.78	6.0939	36791.	5.9466	5.5237	6.034
Stddev	80.	3.27	.2435	71.	.5644	1.1339	1.216
%RSD	.25019	.53400	3.9967	.19323	9.4912	20.528	20.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-21-a Acquired: 7/13/2017 1:21:10 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6007	.63623	13.764	1.2450	-1.8400	6.9648	6519.4
Stddev	2.2124	.22149	.638	.6411	1.5906	.3008	30.5
%RSD	138.21	34.812	4.6346	51.493	86.446	4.3184	.46719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	669.31
Stddev	9.93
%RSD	1.4839
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7267.2	4537.6	58675.	8607.8
Stddev	15.9	14.7	155.	4.4
%RSD	.21909	.32421	.26387	.05086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.549%	91.941%	92.267%	92.995%
Range				

Sample Name: 240-82060-l-21-b ms Acquired: 7/13/2017 1:25:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.694	2333.6	2198.0	1469.9	2059.6	49.350	175810.
Stddev	.941	22.3	15.0	8.5	4.8	.387	320.
%RSD	1.7517	.95506	.68039	.57808	.23395	.78504	.18208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.33	510.08	199.38	258.76	2925.0	54255.	1014.1
Stddev	.45	3.95	.57	1.38	8.4	75.	1.9
%RSD	.8527	.77463	.28820	.53482	.28684	.13769	.18898
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	77852.	1063.1	978.25	85611.	519.90	494.12	536.9
Stddev	192.	6.9	7.29	123.	2.93	2.11	5.4
%RSD	.24599	.65084	.74510	.14414	.56446	.42756	1.014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-21-b ms Acquired: 7/13/2017 1:25:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2169.9	2076.5	1013.1	1999.2	491.59	526.31	7250.0
Stddev	18.2	16.2	3.2	18.6	4.96	3.33	22.5
%RSD	.84077	.78126	.31659	.93181	1.0081	.63250	.31100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1603.2
Stddev	7.4
%RSD	.46196
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6898.0	4456.5	58017.	8636.4
Stddev	11.1	13.3	202.	19.4
%RSD	.16071	.29735	.34811	.22443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.151%	90.297%	91.233%	93.305%
Range				

Sample Name: 240-82060-l-21-c msd Acquired: 7/13/2017 1:29:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	55.153	2388.6	2206.0	1491.9	2091.9	50.717	183660.
Stddev	.220	8.0	11.3	6.4	9.9	.529	1156.
%RSD	.39829	.33338	.51146	.42963	.47090	1.0436	.62945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.87	516.93	203.84	264.45	3027.9	55279.	1030.2
Stddev	.37	.45	1.18	.54	14.2	323.	4.8
%RSD	.6946	.08619	.57857	.20386	.47061	.58343	.46805
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	80332.	1110.6	990.74	88463.	526.04	498.75	541.0
Stddev	603.	5.1	7.18	417.	1.07	3.42	6.9
%RSD	.75036	.46053	.72481	.47133	.20328	.68586	1.274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-21-c msd Acquired: 7/13/2017 1:29:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2189.0	2096.8	1026.7	2013.0	499.14	530.81	7574.1
Stddev	7.7	7.1	6.8	10.9	3.28	2.44	37.1
%RSD	.35320	.34062	.66395	.54001	.65724	.46023	.48917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1659.3
Stddev	6.7
%RSD	.40473
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6894.1	4471.5	57637.	8599.5
Stddev	10.0	3.3	238.	37.1
%RSD	.14494	.07399	.41351	.43088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.105%	90.602%	90.636%	92.906%
Range				

Sample Name: 240-82060-d-1-a Acquired: 7/13/2017 1:33:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12199	42.513	7.5200	377.21	116.22	.06106	129400.
Stddev	.16924	33.007	2.3969	3.60	.53	.09218	807.
%RSD	138.74	77.639	31.873	.95524	.45965	150.97	.62339
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0310	2.4670	1.3359	-.13013	2234.9	3955.7	4.2812
Stddev	.1376	.1310	.2538	.04550	17.7	19.6	.6575
%RSD	444.4	5.3109	18.996	34.966	.79281	.49424	15.357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21486.	1332.9	5.3623	18241.	4.5016	2.7944	4.145
Stddev	54.	6.8	.3317	86.	.1598	1.2738	1.157
%RSD	.24931	.51378	6.1851	.46934	3.5487	45.585	27.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-1-a Acquired: 7/13/2017 1:33:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6496	.82911	1.8015	1.1311	-2.7805	1.2760	7650.4
Stddev	1.4061	.71316	.1717	1.0081	4.4992	.2129	91.4
%RSD	85.237	86.016	9.5327	89.129	161.81	16.685	1.1948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	802.31
Stddev	14.34
%RSD	1.7871
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7386.1	4581.4	59118.	8673.9
Stddev	7.9	11.6	216.	55.5
%RSD	.10713	.25334	.36598	.63954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.964%	92.829%	92.965%	93.709%
Range				

Sample Name: 240-82060-d-2-a Acquired: 7/13/2017 1:37:40 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08751	47475.	41.798	154.63	389.09	2.7046	506670.
Stddev	.65424	17.	1.216	1.38	.78	.1716	2292.
%RSD	747.61	.03607	2.9082	.89449	.20057	6.3451	.45240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.401	30.671	74.430	98.482	71694.	12065.	98.024
Stddev	.095	.464	.471	1.720	158.	40.	3.268
%RSD	3.969	1.5114	.63231	1.7462	.22043	.33524	3.3335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	78206.	3083.5	16.335	10535.	95.653	84.102	3.410
Stddev	93.	30.1	.378	15.	.833	.490	2.725
%RSD	.11886	.97554	2.3163	.14096	.87051	.58282	79.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-2-a Acquired: 7/13/2017 1:37:40 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.82684	32.783	446.24	-.87628	97.061	348.80	60238.
Stddev	1.8122	.269	3.18	1.1685	1.527	1.98	1034.
%RSD	219.18	.82036	.71323	133.35	1.5729	.56859	1.7157
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	925.85
Stddev	2.38
%RSD	.25689
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6628.7	4566.5	58342.	8990.5
Stddev	20.3	13.9	315.	5.5
%RSD	.30700	.30527	.53987	.06153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.944%	92.527%	91.744%	97.130%
Range				

Sample Name: 240-82060-d-3-a Acquired: 7/13/2017 1:42:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09608	56.492	1.3330	324.44	25.289	.11054	92823.	.0416
Stddev	.43324	17.218	2.8234	1.74	.174	.05261	304.	.1287
%RSD	450.93	30.478	211.80	.53680	.68900	47.589	.32756	309.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.22048	1.5995	.56757	54.456	6883.4	2.1197	30380.	4.5683
Stddev	.07289	.3199	.10904	3.543	47.4	.8769	520.	.0401
%RSD	33.060	19.997	19.211	6.5056	.68868	41.371	1.7108	.87795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.2849	9130.6	1.2563	3.1695	5.934	6.9483	.22516	1.4524
Stddev	.0568	32.7	.2318	.8543	.850	2.4388	1.0148	.3638
%RSD	.61169	.35836	18.449	26.953	14.32	35.099	450.72	25.049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-3-a Acquired: 7/13/2017 1:42:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.35576	-1.1300	-1.3919	11300.	597.94
Stddev	.68064	2.1293	.1493	170.	11.73
%RSD	191.32	188.43	10.729	1.5076	1.9623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7484.9	4643.4	60082.	8882.6
Stddev	44.6	25.3	108.	21.1
%RSD	.59614	.54587	.18014	.23726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.141%	94.084%	94.481%	95.965%
Range				

Sample Name: 240-82060-d-4-a Acquired: 7/13/2017 1:46:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12948	471.70	3.3549	140.32	55.530	.00810	85671.	.2683
Stddev	.10842	16.54	1.1920	1.84	.262	.21422	140.	.0780
%RSD	83.734	3.5067	35.530	1.3129	.47132	2643.7	.16319	29.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.87213	2.4227	9.1252	941.83	2255.1	4.6215	21290.	105.51
Stddev	.21500	.4520	.5220	1.64	35.4	1.2303	53.	.42
%RSD	24.652	18.656	5.7209	.17459	1.5680	26.621	.25083	.39956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.852	15272.	5.7511	25.286	3.594	.14077	2.2195	13.465
Stddev	.404	69.	.2447	1.390	.872	1.0349	.1800	.729
%RSD	2.0371	.45014	4.2547	5.4962	24.25	735.14	8.1088	5.4175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-4-a Acquired: 7/13/2017 1:46:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.07973	-1.8037	20.758	5894.0	136.30
Stddev	.87528	.7934	.801	87.1	2.92
%RSD	1097.8	43.986	3.8611	1.4770	2.1432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7561.4	4655.7	60217.	8808.4
Stddev	17.9	16.2	208.	34.1
%RSD	.23675	.34831	.34583	.38668
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.052%	94.334%	94.692%	95.163%
Range				

Sample Name: 240-82060-d-5-a Acquired: 7/13/2017 1:50:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36121	53829.	49.010	227.34	316.45	2.6428	551110.
Stddev	.26214	81.	3.771	3.28	1.13	.0781	3290.
%RSD	72.571	.15086	7.6934	1.4449	.35700	2.9551	.59702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.307	40.073	119.94	119.17	84328.	14785.	79.412
Stddev	.056	.133	.65	.87	206.	47.	1.424
%RSD	2.404	.33145	.54332	.72646	.24477	.31585	1.7930
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	84602.	2860.9	7.2037	8452.9	112.85	251.87	-.7860
Stddev	183.	11.4	.3752	46.2	2.74	5.33	3.315
%RSD	.21647	.39872	5.2087	.54658	2.4245	2.1143	421.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-5-a Acquired: 7/13/2017 1:50:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.3081	13.166	1359.4	-.33296	127.37	336.30	66138.
Stddev	5.1493	.874	4.6	.80836	2.79	8.49	223.
%RSD	119.53	6.6343	.33960	242.78	2.1934	2.5255	.33770
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1252.7
Stddev	2.0
%RSD	.16071
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6518.9	4593.8	59586.	9133.3
Stddev	28.6	24.6	134.	31.1
%RSD	.43798	.53658	.22522	.34071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.637%	93.080%	93.701%	98.673%
Range				

Sample Name: 240-82060-d-8-a Acquired: 7/13/2017 1:55:09 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05376	744.74	1.6840	159.94	16.708	-.03145	65240.	.0909
Stddev	.25637	11.92	1.6400	.52	.207	.05191	31.	.0493
%RSD	476.92	1.6002	97.388	.32413	1.2362	165.05	.04692	54.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.19481	3.0317	1.5176	827.91	1749.1	-4.3746	10952.	18.621
Stddev	.12673	.3363	.3076	7.12	14.5	.5843	78.	.110
%RSD	65.056	11.095	20.267	.85967	.82973	13.356	.71554	.59339
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2161	5005.4	2.1742	2.1662	-.1714	9.0584	.39091	22.029
Stddev	.1161	8.2	.7368	1.2591	1.540	.7315	.35308	.518
%RSD	9.5496	.16405	33.885	58.123	898.6	8.0753	90.323	2.3536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-8-a Acquired: 7/13/2017 1:55:09 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.23190	1.2944	1.7111	6895.0	620.49
Stddev	1.0148	3.2722	.0552	131.3	5.11
%RSD	437.61	252.79	3.2273	1.9044	.82425
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7754.4	4706.1	60903.	8828.0
Stddev	13.0	13.0	231.	11.5
%RSD	.16767	.27555	.38005	.12976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.350%	95.355%	95.772%	95.375%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 1:59:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1005.5	24365.	507.44	5073.7	1993.9	1974.8	48908.	504.7
Stddev	4.4	90.	1.41	20.1	4.2	6.5	86.	2.2
%RSD	.43640	.37110	.27737	.39637	.21044	.32847	.17503	.4329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1996.3	1966.0	1982.8	24042.	49897.	4907.5	48498.	1958.6
Stddev	9.1	8.1	9.4	40.	107.	11.5	129.	17.7
%RSD	.45677	.41381	.47601	.16825	.21355	.23413	.26651	.90498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1919.5	50341.	2001.8	486.67	510.9	503.16	5055.4	4964.0
Stddev	10.8	93.	9.7	2.26	2.0	3.32	17.5	19.0
%RSD	.56397	.18475	.48629	.46446	.3860	.65925	.34659	.38242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 1:59:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	993.17	1922.6	2025.8	4978.0	4860.8
Stddev	4.69	2.7	8.5	81.7	18.4
%RSD	.47261	.13889	.41997	1.6413	.37902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7108.5	4577.1	58715.	8565.3
Stddev	18.1	9.1	176.	20.1
%RSD	.25431	.19891	.29931	.23414

Sample Name: CCB Acquired: 7/13/2017 2:03:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.48957	20.417	.11753	8.1783	.21476	.05705	14.505	-.0704
Stddev	.32958	10.345	.87499	.6497	.18708	.22204	1.804	.0651
%RSD	67.321	50.669	744.47	7.9438	87.111	389.22	12.436	92.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.20703	.35808	.25603	3.9465	-200.06	-6.6794	.69171	.13853
Stddev	.16916	.28954	.84471	1.4905	8.14	1.2427	16.488	.01038
%RSD	81.712	80.859	329.92	37.767	4.0700	18.605	2383.7	7.4962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.6570	46.814	.36183	1.8522	2.185	-.03557	.88833	2.1123
Stddev	.2476	15.068	.51474	.6535	2.461	3.3057	.16459	.2881
%RSD	9.3188	32.188	142.26	35.282	112.6	9293.4	18.527	13.639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 2:03:39 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.13581	-1.4291	.37605	35.347	2.1911
Stddev	.79304	3.4112	.10936	14.210	1.0536
%RSD	583.96	238.70	29.082	40.200	48.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8232.6	4833.9	62300.	8740.9
Stddev	11.8	8.3	288.	84.2
%RSD	.14358	.17217	.46250	.96367

Sample Name: 240-82060-d-9-a Acquired: 7/13/2017 2:08:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04875	34.697	4.1654	205.78	48.966	-.07375	100320.
Stddev	.36489	3.426	1.5212	.69	.265	.14415	298.
%RSD	748.58	9.8735	36.519	.33610	.54125	195.47	.29746
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0106	.50540	1.5027	-.29751	1107.0	1660.6	5.2429
Stddev	.0697	.37910	.0800	.35429	4.9	25.4	.6151
%RSD	659.8	75.010	5.3251	119.08	.44647	1.5316	11.731
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27701.	284.29	6.4942	8221.6	1.9025	1.6407	.6960
Stddev	87.	.27	.1221	27.6	.1787	.4305	.8515
%RSD	.31374	.09392	1.8809	.33546	9.3906	26.238	122.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-9-a Acquired: 7/13/2017 2:08:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06115	.20760	1.1265	.78663	-1.5858	.69514	8337.6
Stddev	2.8172	.52948	.3708	1.1347	1.4284	.08016	69.0
%RSD	4607.1	255.05	32.913	144.25	90.075	11.531	.82804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	193.58
Stddev	3.21
%RSD	1.6563
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7537.7	4655.8	60015.	8823.0
Stddev	38.3	23.5	118.	1.0
%RSD	.50854	.50377	.19618	.01139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.770%	94.335%	94.375%	95.321%
Range				

Sample Name: 240-82060-d-10-a Acquired: 7/13/2017 2:12:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40053	84.252	1.8754	122.36	9.5359	.12905	68059.	.0135
Stddev	.19852	18.156	2.4690	.61	.0425	.12858	166.	.1696
%RSD	49.564	21.550	131.65	.50135	.44618	99.640	.24364	1255.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15343	1.6360	1.4147	57.561	462.49	-2.6934	10410.	3.3888
Stddev	.27001	.3776	.4514	.291	28.67	.6903	58.	.0347
%RSD	175.98	23.083	31.908	.50500	6.1993	25.630	.55631	1.0231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.90441	4713.7	1.2214	2.7879	2.075	4.0125	.11317	1.7389
Stddev	.12604	15.6	.0336	.9729	.682	2.2040	.85757	.2760
%RSD	13.936	.33124	2.7497	34.896	32.85	54.929	757.76	15.872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-10-a Acquired: 7/13/2017 2:12:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.91695	-1.7551	2.8224	4499.6	377.88
Stddev	1.6922	2.3287	.1547	63.8	8.32
%RSD	184.54	132.68	5.4792	1.4184	2.2020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7779.7	4734.9	61041.	8817.9
Stddev	16.1	8.0	102.	12.6
%RSD	.20646	.16806	.16791	.14258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.652%	95.940%	95.989%	95.265%
Range				

Sample Name: 240-82060-d-20-a Acquired: 7/13/2017 2:16:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12119	33.628	-.16844	312.07	42.883	-.04433	120180.
Stddev	.22768	12.541	.99526	3.85	.280	.03574	454.
%RSD	187.87	37.293	590.86	1.2335	.65331	80.621	.37764
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0423	.79856	1.7172	7.2965	541.85	5482.7	6.5541
Stddev	.0641	.24990	.1053	.4227	2.57	69.5	1.9757
%RSD	151.7	31.293	6.1294	5.7935	.47429	1.2667	30.144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	25345.	942.12	1.5145	12094.	2.8323	2.5991	2.241
Stddev	230.	2.60	.2052	62.	.1385	1.8060	.670
%RSD	.90645	.27584	13.548	.51269	4.8902	69.485	29.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-20-a Acquired: 7/13/2017 2:16:45 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.66695	-.01543	.94440	-.23189	-5.3576	7.2433	6007.4
Stddev	1.0169	.51974	.08648	1.0835	1.8879	.1511	104.0
%RSD	152.47	3368.7	9.1568	467.25	35.238	2.0860	1.7316
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	881.82
Stddev	14.52
%RSD	1.6468
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7469.9	4630.0	59775.	8837.9
Stddev	10.9	4.9	126.	31.5
%RSD	.14645	.10505	.21003	.35628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.963%	93.814%	93.998%	95.482%
Range				

Sample Name: 240-82060-e-1-a Acquired: 7/13/2017 2:21:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06811	28.944	4.3479	380.96	114.85	-.10684	126610.
Stddev	.45668	14.310	2.8951	2.76	.32	.11827	456.
%RSD	670.47	49.440	66.585	.72443	.28112	110.70	.35986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0875	2.3867	1.4928	.14878	1688.5	3680.7	5.7168
Stddev	.1959	.2482	.3937	.38643	5.0	45.5	.1098
%RSD	224.0	10.398	26.375	259.74	.29503	1.2372	1.9200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21242.	1251.0	2.2775	18861.	3.9953	1.8850	.4165
Stddev	64.	8.0	.1596	42.	.6617	.5856	.6568
%RSD	.30158	.63906	7.0056	.22502	16.562	31.064	157.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-1-a Acquired: 7/13/2017 2:21:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9315	-.06817	.23884	.17596	-2.3461	1.7090	7319.7
Stddev	1.6846	.39863	.01766	.49147	3.9251	.1836	31.4
%RSD	87.217	584.80	7.3937	279.31	167.30	10.744	.42889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	770.58
Stddev	9.69
%RSD	1.2577
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7435.8	4623.2	60062.	8856.4
Stddev	1.9	2.3	210.	20.3
%RSD	.02527	.04913	.34999	.22950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.556%	93.676%	94.449%	95.681%
Range				

Sample Name: 240-82060-e-2-a Acquired: 7/13/2017 2:25:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.07827	25.107	-.61488	83.827	56.079	-.01671	142650.
Stddev	.10375	11.930	3.4007	1.094	.163	.12112	473.
%RSD	132.56	47.517	553.06	1.3048	.28987	725.00	.33135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0159	-.02829	1.3959	.25499	4.5340	2381.4	22.691
Stddev	.1615	.11465	.1280	.47499	1.4874	23.0	2.316
%RSD	1017.	405.32	9.1658	186.28	32.806	.96697	10.206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40374.	19.832	3.2760	9160.1	1.6784	1.4650	1.379
Stddev	42.	.059	.2680	40.4	.3334	1.2902	.716
%RSD	.10437	.29914	8.1792	.44137	19.867	88.069	51.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-2-a Acquired: 7/13/2017 2:25:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35034	1.2481	.15008	.86583	-3.0506	4.0172	7567.5
Stddev	1.1133	.2453	.17273	.74274	1.0371	.0263	14.6
%RSD	317.77	19.654	115.09	85.783	33.995	.65580	.19292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	341.01
Stddev	2.19
%RSD	.64351
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7338.1	4549.7	58947.	8654.8
Stddev	12.9	8.1	101.	19.5
%RSD	.17627	.17836	.17162	.22511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.393%	92.187%	92.695%	93.503%
Range				

Sample Name: 240-82060-e-3-a Acquired: 7/13/2017 2:29:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11549	33.669	.22446	323.87	24.999	.03812	93864.	.0127
Stddev	.17076	18.633	1.4758	.11	.054	.06063	338.	.0344
%RSD	147.85	55.340	657.49	.03268	.21678	159.05	.36051	270.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02361	1.5759	.30312	.61043	6950.6	3.5661	29420.	-.26114
Stddev	.28347	.1868	.07302	1.0635	6.9	.0119	172.	.04745
%RSD	1200.5	11.854	24.091	174.23	.09956	.33391	.58554	18.169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.7293	9505.9	.86097	2.5070	5.457	9.9053	-.04495	.14596
Stddev	.3771	29.4	.65423	.8005	1.554	3.1982	.23762	.25102
%RSD	4.3202	.30900	75.987	31.932	28.49	32.288	528.58	171.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-3-a Acquired: 7/13/2017 2:29:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.04568	-3.0026	.00307	11088.	615.73
Stddev	.66208	1.2054	.06507	90.	10.50
%RSD	1449.3	40.144	2121.8	.81583	1.7049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7511.2	4641.6	60218.	8788.1
Stddev	25.9	19.6	249.	24.9
%RSD	.34425	.42122	.41326	.28325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.454%	94.048%	94.694%	94.944%
Range				

Sample Name: 240-82060-e-4-a Acquired: 7/13/2017 2:34:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.30774	20.975	1.9277	137.48	47.663	-.13785	78722.	-.0566
Stddev	.04546	31.347	1.6073	1.60	.367	.04151	468.	.0600
%RSD	14.772	149.45	83.379	1.1673	.76954	30.111	.59416	106.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10613	1.7899	.35136	9.6424	2107.8	6.1503	19624.	11.047
Stddev	.12102	.1933	.19485	.4965	80.0	1.7659	321.	.064
%RSD	114.03	10.799	55.455	5.1490	3.7944	28.712	1.6348	.57562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.740	15082.	2.9305	.24832	2.298	1.0481	.54916	.40834
Stddev	.322	133.	.3669	.55414	1.309	1.0127	.57957	.17545
%RSD	1.7198	.88479	12.519	223.15	56.97	96.620	105.54	42.967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-4-a Acquired: 7/13/2017 2:34:33 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.74610	-.47988	5.7974	4722.5	126.46
Stddev	.73858	1.5492	.2474	60.0	1.20
%RSD	98.993	322.83	4.2670	1.2697	.95012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7611.6	4652.8	60763.	8789.6
Stddev	19.4	7.6	292.	45.2
%RSD	.25443	.16409	.47986	.51414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.649%	94.276%	95.552%	94.960%
Range				

Sample Name: 240-82060-e-5-a Acquired: 7/13/2017 2:38:54 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34471	49.713	.73744	171.95	28.263	.01217	78299.	-.0199
Stddev	.65962	18.762	.85189	.73	.137	.32414	233.	.0362
%RSD	191.35	37.740	115.52	.42486	.48455	2663.5	.29772	181.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27450	3.0065	.59913	34.501	3136.8	-1.8017	12653.	.54959
Stddev	.26016	.1687	.50558	1.925	41.0	1.1796	98.	.01076
%RSD	94.776	5.6099	84.385	5.5799	1.3080	65.473	.77517	1.9584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3325	7402.2	2.5666	2.1892	.9073	1.3569	.15285	.72990
Stddev	.3746	29.2	.1565	.4273	1.284	.7461	.44669	.19328
%RSD	28.114	.39482	6.0965	19.517	141.5	54.991	292.25	26.480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-5-a Acquired: 7/13/2017 2:38:54 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.66498	-4.3948	1.5604	4934.1	606.44
Stddev	.13034	2.5273	.1058	40.3	5.96
%RSD	19.600	57.506	6.7791	.81684	.98323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7653.6	4653.1	59938.	8729.9
Stddev	15.1	11.2	322.	20.4
%RSD	.19764	.24070	.53745	.23422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.149%	94.282%	94.255%	94.315%
Range				

Sample Name: 240-82060-e-8-a Acquired: 7/13/2017 2:43:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15752	56.288	-.03413	155.53	12.607	-.10756	60671.	-.0673
Stddev	.07881	19.235	.72303	1.72	.263	.07914	199.	.0795
%RSD	50.032	34.172	2118.2	1.1044	2.0827	73.585	.32743	118.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05392	5.4317	.89987	22.513	1525.0	-1.7867	10056.	.55535
Stddev	.25169	.3278	.43606	1.375	37.6	.6670	101.	.01069
%RSD	466.79	6.0349	48.458	6.1080	2.4626	37.329	.99955	1.9245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4987	4873.1	5.1157	.72463	-.5817	9.3309	.31614	.31833
Stddev	.2099	19.1	.6160	1.4181	1.712	3.9269	.71604	.01703
%RSD	14.004	.39163	12.040	195.70	294.4	42.085	226.49	5.3503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-8-a Acquired: 7/13/2017 2:43:14 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.22755	-1.3262	-.97941	5286.9	592.37
Stddev	.57118	3.1198	.07724	76.2	3.16
%RSD	251.01	235.25	7.8865	1.4407	.53329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7847.1	4725.7	61292.	8835.3
Stddev	18.6	14.5	96.	41.7
%RSD	.23651	.30787	.15713	.47231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.455%	95.752%	96.383%	95.454%
Range				

Sample Name: 240-82060-e-9-a Acquired: 7/13/2017 2:47:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07324	75.455	2.5837	212.97	47.341	.02964	97870.	-.0013
Stddev	.20389	11.879	3.3669	1.07	.405	.16884	234.	.0943
%RSD	278.38	15.743	130.31	.50043	.85470	569.56	.23884	7058.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.64727	13.856	2.2852	1071.2	1571.9	4.7900	26836.	279.71
Stddev	.31782	.402	.1942	10.3	45.1	1.3573	40.	1.62
%RSD	49.101	2.9030	8.4976	.95857	2.8675	28.336	.14972	.58092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.5317	8039.7	14.640	2.5715	.1407	-.72632	.71378	.50301
Stddev	.1156	38.6	.333	2.2004	1.709	2.6962	.30426	.14386
%RSD	1.7700	.48023	2.2749	85.571	1215.	371.22	42.627	28.599
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-9-a Acquired: 7/13/2017 2:47:35 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.6369	-3.2533	.63799	8042.7	191.79
Stddev	1.0684	2.4842	.13969	52.8	9.93
%RSD	65.269	76.359	21.896	.65638	5.1751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7512.1	4637.5	60064.	8851.1
Stddev	27.5	14.1	174.	17.4
%RSD	.36606	.30405	.28941	.19616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.465%	93.966%	94.452%	95.625%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 2:51:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1006.6	24267.	504.17	5038.5	1993.6	1957.2	48843.	502.4
Stddev	.7	136.	5.28	28.7	12.7	13.4	322.	3.5
%RSD	.07171	.56103	1.0480	.56887	.63871	.68391	.65976	.6917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2000.3	1968.2	1990.4	24081.	49535.	4854.4	47870.	1998.7
Stddev	17.4	4.8	4.7	139.	355.	37.8	553.	4.4
%RSD	.87222	.24537	.23571	.57818	.71695	.77888	1.1552	.21959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1914.1	49903.	2003.8	483.46	510.7	507.23	5050.0	4958.9
Stddev	18.5	416.	18.0	3.54	4.4	5.03	50.1	29.3
%RSD	.96874	.83358	.89696	.73299	.8538	.99248	.99271	.59065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 2:51:56 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	997.08	1910.2	2019.8	4854.9	4811.9
Stddev	13.40	11.8	17.1	43.7	46.7
%RSD	1.3435	.61747	.84647	.90076	.96974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7108.2	4596.3	58773.	8620.4
Stddev	22.8	6.9	64.	57.6
%RSD	.32060	.14904	.10817	.66849

Sample Name: CCB Acquired: 7/13/2017 2:56:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27213	-2.8315	-.35290	7.5171	.00952	.07978	1.1528	-.0434
Stddev	.27333	22.345	2.8518	.5269	.09611	.09068	1.0047	.0506
%RSD	100.44	789.13	808.09	7.0098	1009.8	113.66	87.156	116.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12695	.29965	.93821	1.2790	-189.26	-4.7974	-4.9530	.09724
Stddev	.02039	.20176	.39814	2.5779	30.29	1.3820	17.937	.12051
%RSD	16.065	67.330	42.436	201.56	16.006	28.807	362.15	123.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8455	35.986	.13426	1.1886	1.059	.86697	.93459	2.1745
Stddev	.2107	4.462	.45449	.6652	.654	1.2893	.28701	.0736
%RSD	7.4033	12.398	338.52	55.967	61.75	148.71	30.710	3.3859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 2:56:00 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.09895	-.97392	.06876	11.724	-1.4383
Stddev	1.0591	1.2393	.17805	8.147	2.6589
%RSD	1070.3	127.25	258.94	69.491	184.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8238.8	4853.4	62586.	8771.9
Stddev	14.4	8.9	330.	40.4
%RSD	.17471	.18362	.52650	.46089

Sample Name: 240-82060-e-10-a Acquired: 7/13/2017 3:00:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10041	37.036	1.3894	132.20	10.076	-.05086	69282.	-.0788
Stddev	.47810	12.265	1.8054	1.22	.186	.07089	225.	.1023
%RSD	476.14	33.117	129.94	.92198	1.8417	139.37	.32494	129.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.24731	5.6968	1.6651	28.697	533.20	-3.4237	10571.	1.8206
Stddev	.19445	.3286	.1404	1.795	39.77	.3600	69.	.0604
%RSD	78.625	5.7683	8.4337	6.2533	7.4583	10.515	.65324	3.3183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3947	4857.4	5.3778	2.2527	2.527	3.4602	.58895	1.0392
Stddev	.1876	14.4	.5484	.9639	2.388	1.6949	.51376	.3418
%RSD	13.452	.29687	10.197	42.786	94.52	48.982	87.234	32.891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-10-a Acquired: 7/13/2017 3:00:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.8659	.85855	8.8861	4448.7	386.13
Stddev	.7719	2.5345	.2043	39.8	4.54
%RSD	41.371	295.20	2.2989	.89538	1.1755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7724.3	4681.0	60324.	8795.9
Stddev	8.7	4.3	266.	12.5
%RSD	.11264	.09140	.44173	.14261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.992%	94.846%	94.861%	95.028%
Range				

Sample Name: 240-82060-e-20-a Acquired: 7/13/2017 3:04:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11421	30.383	1.6708	296.31	39.037	.05682	114510.
Stddev	.25744	11.908	1.4184	1.92	.222	.13983	99.
%RSD	225.42	39.192	84.891	.64837	.56775	246.12	.08668
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0274	.63927	.75635	1.1821	150.08	5239.2	7.3210
Stddev	.1539	.34261	.27407	.3560	2.92	47.3	1.0151
%RSD	562.0	53.595	36.235	30.116	1.9438	.90326	13.866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24270.	695.78	1.4975	11715.	1.9378	3.0073	3.234
Stddev	138.	3.75	.1158	35.	.1908	.9330	1.325
%RSD	.56715	.53947	7.7362	.29809	9.8480	31.024	40.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-20-a Acquired: 7/13/2017 3:04:46 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36964	-.11936	.37730	.76994	-2.4081	2.7635	5551.1
Stddev	4.6883	.14166	.03317	.51041	2.0456	.0561	88.7
%RSD	1268.3	118.69	8.7926	66.292	84.947	2.0294	1.5974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	840.63
Stddev	12.75
%RSD	1.5169
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7524.4	4634.0	60500.	8771.4
Stddev	38.1	18.4	264.	36.5
%RSD	.50646	.39641	.43670	.41641
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.611%	93.894%	95.138%	94.764%
Range				

Sample Name: mb 240-286680/1-a Acquired: 7/13/2017 3:09:05 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15863	12.314	1.5136	6.3591	.90509	-.01488	214.54	-.0823
Stddev	.30662	25.408	1.8052	.5213	.28924	.07296	2.39	.1267
%RSD	193.29	206.34	119.27	8.1971	31.957	490.25	1.1129	153.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07364	.36542	2.8886	14.709	-186.15	-5.5104	87.828	-.15474
Stddev	.20730	.33751	.5247	.336	20.87	1.4731	23.574	.05713
%RSD	281.50	92.363	18.163	2.2843	11.211	26.734	26.841	36.917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12452	118.06	.47308	1.0222	.6184	-1.6019	-.15417	.09004
Stddev	.27447	18.13	.23327	1.6350	.8791	1.0797	.31515	.28988
%RSD	220.42	15.358	49.309	159.95	142.2	67.399	204.41	321.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286680/1-a Acquired: 7/13/2017 3:09:05 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.58016	-1.7017	-.03541	57.067	-1.7989
Stddev	.83749	1.7130	.21082	5.610	4.1003
%RSD	144.35	100.66	595.33	9.8313	227.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8262.5	4864.4	63122.	8921.5
Stddev	9.0	3.9	139.	67.1
%RSD	.10935	.07955	.22064	.75230

Sample Name: lcs 240-286680/2-a Acquired: 7/13/2017 3:13:28 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.853	2011.0	2154.6	1067.3	2029.5	51.941	50784.	52.84
Stddev	.570	26.0	10.9	4.8	12.5	.438	255.	.06
%RSD	1.0583	1.2927	.50744	.45193	.61393	.84397	.50271	.1077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	505.08	202.10	262.99	996.11	51233.	996.66	50178.	507.71
Stddev	1.96	.28	.66	5.32	319.	7.28	401.	.40
%RSD	.38861	.13722	.25218	.53383	.62270	.73018	.79997	.07881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	966.43	51670.	516.12	499.27	530.7	2156.6	2036.9	1011.9
Stddev	6.03	297.	2.35	3.16	3.7	13.2	16.2	2.1
%RSD	.62435	.57431	.45608	.63390	.6942	.60998	.79392	.21235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286680/2-a Acquired: 7/13/2017 3:13:28 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2001.4	493.20	516.11	1093.7	1021.3
Stddev	14.5	3.45	3.29	2.9	8.6
%RSD	.72274	.69933	.63681	.26452	.83835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7266.1	4571.9	59090.	8661.9
Stddev	9.8	8.1	62.	32.2
%RSD	.13458	.17696	.10540	.37210

Sample Name: 240-82060-d-22-a Acquired: 7/13/2017 3:17:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.07552	114.79	4.6123	287.74	44.202	-.01184	135500.
Stddev	.05811	10.93	1.5049	2.30	.220	.13719	284.
%RSD	76.946	9.5175	32.628	.79923	.49820	1158.4	.20958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0023	.34806	1.2673	1.0408	260.57	3337.6	7.4256
Stddev	.0442	.20262	.0643	.3970	2.13	31.1	2.3778
%RSD	1961.	58.213	5.0717	38.143	.81789	.93272	32.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22515.	151.80	3.5897	11412.	2.2302	2.6921	3.638
Stddev	175.	.15	.2645	43.	.4356	.3026	.919
%RSD	.77522	.10183	7.3684	.38007	19.534	11.238	25.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-22-a Acquired: 7/13/2017 3:17:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.2323	1.5630	3.0430	.36180	.41959	5.6590	6469.0
Stddev	2.9890	.2947	.1285	.67168	2.2132	.2859	77.1
%RSD	41.328	18.852	4.2225	185.65	527.47	5.0516	1.1916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	615.86
Stddev	10.74
%RSD	1.7443
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7493.2	4608.2	59863.	8762.0
Stddev	12.0	4.5	151.	24.9
%RSD	.16016	.09682	.25236	.28380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.240%	93.372%	94.137%	94.661%
Range				

Sample Name: SD 240-82060-d-22a@5 Acquired: 7/13/2017 3:21:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31817	34.544	-.16981	56.289	8.5335	.07744	27428.	.0545
Stddev	.22401	21.216	1.5804	.385	.1517	.10919	201.	.0948
%RSD	70.407	61.416	930.66	.68356	1.7778	141.01	.73394	174.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.09363	.18337	-.25741	50.782	476.24	-5.0397	4546.3	30.974
Stddev	.21164	.21020	.38873	2.609	36.59	1.8668	60.2	.150
%RSD	226.03	114.63	151.02	5.1384	7.6836	37.042	1.3237	.48411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.54270	2292.5	.26882	1.0431	.1998	-1.7098	-.21756	.49463
Stddev	.25084	15.2	.05416	.6340	.3445	.6364	.56106	.10919
%RSD	46.220	.66391	20.146	60.781	172.5	37.223	257.89	22.075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-82060-d-22a@5 Acquired: 7/13/2017 3:21:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.54639	-2.6537	-.32155	1288.7	125.08
Stddev	.89243	1.1192	.15262	8.7	1.47
%RSD	163.33	42.174	47.463	.67498	1.1721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8041.6	4777.7	61866.	8756.9
Stddev	7.5	10.9	114.	46.8
%RSD	.09275	.22768	.18485	.53440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.771%	96.807%	97.286%	94.607%
Range				

Sample Name: PDS 240-82060-d-22-a Acquired: 7/13/2017 3:26:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.776	2103.1	2217.3	1397.3	2083.1	52.141	182590.
Stddev	.208	6.5	9.4	7.0	5.4	.108	511.
%RSD	.38720	.31036	.42210	.49893	.26134	.20690	.27987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.69	524.14	200.44	259.11	1232.5	55201.	1022.7
Stddev	.42	2.55	1.99	3.11	1.5	245.	4.5
%RSD	.7852	.48738	.99121	1.2021	.12352	.44438	.43841
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	70370.	645.85	992.85	63673.	528.32	503.98	528.5
Stddev	232.	3.83	4.72	316.	2.30	2.56	2.9
%RSD	.32922	.59282	.47504	.49682	.43495	.50811	.5436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-82060-d-22-a Acquired: 7/13/2017 3:26:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2204.1	2130.3	1017.2	2039.7	494.82	535.90	7289.6
Stddev	14.1	14.8	7.2	13.0	3.68	2.11	29.0
%RSD	.63855	.69526	.70450	.63565	.74391	.39417	.39793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1592.5
Stddev	5.2
%RSD	.32701
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6896.0	4454.7	58211.	8657.7
Stddev	26.3	20.5	246.	19.9
%RSD	.38103	.46066	.42242	.23015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.128%	90.262%	91.539%	93.534%
Range				

Sample Name: 240-82060-d-22-b ms Acquired: 7/13/2017 3:30:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.802	2091.8	2128.6	1339.0	2035.2	50.524	185210.
Stddev	.382	43.7	4.9	3.5	6.0	.485	137.
%RSD	.70921	2.0902	.22966	.26309	.29612	.95944	.07390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.81	497.20	197.22	255.65	1214.6	53884.	991.40
Stddev	.31	2.72	1.00	.37	5.0	169.	6.05
%RSD	.5951	.54626	.50944	.14367	.41039	.31436	.61067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	69158.	651.14	953.99	62085.	508.10	483.66	535.4
Stddev	70.	2.45	5.92	218.	.74	1.89	1.1
%RSD	.10091	.37634	.62023	.35179	.14573	.39050	.2105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-22-b ms Acquired: 7/13/2017 3:30:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2119.1	2032.9	990.90	1952.7	480.71	511.78	7482.9
Stddev	11.9	11.1	1.49	8.9	.65	.23	34.0
%RSD	.56334	.54409	.15017	.45529	.13466	.04515	.45480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1573.8
Stddev	9.8
%RSD	.62049
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6935.3	4484.7	57836.	8660.1
Stddev	13.1	10.8	76.	5.6
%RSD	.18864	.24093	.13187	.06478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.596%	90.870%	90.949%	93.561%
Range				

Sample Name: 240-82060-d-22-c msd Acquired: 7/13/2017 3:33:57 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.120	2118.6	2128.2	1336.9	2035.8	50.227	183270.
Stddev	.133	16.9	2.6	.2	5.4	.524	353.
%RSD	.25087	.79653	.12332	.01807	.26745	1.0426	.19242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.74	495.53	195.50	254.05	1212.5	53727.	992.43
Stddev	.19	.68	.55	.95	5.0	198.	3.96
%RSD	.3604	.13634	.27897	.37295	.41122	.36891	.39897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	68885.	645.92	952.03	61982.	505.90	480.73	529.9
Stddev	406.	3.76	4.51	336.	.22	2.90	3.0
%RSD	.58894	.58168	.47328	.54133	.04396	.60321	.5735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-22-c msd Acquired: 7/13/2017 3:33:57 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2118.3	2022.8	990.93	1951.2	480.14	509.30	7454.9
Stddev	2.5	5.3	4.12	8.5	2.44	.88	32.6
%RSD	.11743	.26141	.41627	.43774	.50843	.17221	.43727
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1584.4
Stddev	10.9
%RSD	.68584
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6931.1	4471.6	57933.	8599.3
Stddev	22.0	10.2	159.	5.3
%RSD	.31676	.22732	.27372	.06173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.545%	90.604%	91.102%	92.904%
Range				

Sample Name: 240-82060-d-23-a Acquired: 7/13/2017 3:37:53 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.15899	122.73	3.9764	248.74	31.482	-.13036	101150.
Stddev	.41878	10.07	2.1896	1.83	.245	.12002	335.
%RSD	263.40	8.2032	55.064	.73693	.77707	92.066	.33116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1142	.33131	1.3485	.65440	168.13	6161.3	3.3845
Stddev	.0629	.32425	.3874	.54606	1.58	46.9	1.8330
%RSD	55.09	97.869	28.726	83.445	.93958	.76169	54.161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20220.	174.36	4.6734	8410.3	1.7610	3.4087	4.802
Stddev	136.	1.14	.4923	25.8	.0570	1.5961	1.896
%RSD	.67143	.65649	10.533	.30641	3.2372	46.826	39.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-23-a Acquired: 7/13/2017 3:37:53 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.524	1.5812	3.7797	1.4842	-.36109	-.30334	6364.6
Stddev	1.119	.9259	.0559	1.1173	6.4524	.24175	82.1
%RSD	8.9308	58.557	1.4780	75.276	1786.9	79.695	1.2901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	643.50
Stddev	4.92
%RSD	.76484
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7584.2	4660.9	60558.	8852.0
Stddev	28.7	16.3	229.	41.5
%RSD	.37779	.35014	.37826	.46835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.323%	94.439%	95.229%	95.634%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 3:42:13 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1005.4	24081.	506.70	5059.4	1987.1	1991.8	48723.	504.0
Stddev	5.3	151.	2.91	2.8	11.4	13.0	336.	.4
%RSD	.52989	.62597	.57461	.05446	.57529	.65294	.68952	.0793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2002.1	1953.1	1986.9	23742.	49582.	4845.7	47761.	1971.9
Stddev	3.4	8.9	13.2	152.	261.	16.7	326.	7.4
%RSD	.17197	.45404	.66229	.64228	.52713	.34478	.68189	.37431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1916.2	50220.	2005.1	483.12	513.7	505.97	5058.2	4926.0
Stddev	3.7	258.	2.7	2.24	2.2	4.85	3.7	55.2
%RSD	.19492	.51430	.13670	.46275	.4226	.95954	.07301	1.1215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 3:42:13 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	992.12	1888.7	2027.2	4759.8	4817.4
Stddev	7.26	14.5	3.5	75.0	25.3
%RSD	.73185	.76535	.17427	1.5764	.52439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7117.1	4595.6	58880.	8648.1
Stddev	9.0	7.4	142.	39.3
%RSD	.12668	.16123	.24048	.45494

Sample Name: CCB Acquired: 7/13/2017 3:46:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.29596	12.936	.39136	9.1501	-.25242	.16472	2.4105	-.1224
Stddev	.20132	37.835	3.2893	1.1474	.17449	.09066	11.183	.1156
%RSD	68.022	292.47	840.48	12.540	69.128	55.036	463.92	94.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.16384	.19941	.83259	1.8190	-203.84	-5.5238	13.738	.02360
Stddev	.32870	.12302	.21599	.5208	23.22	1.4012	21.707	.06215
%RSD	200.62	61.690	25.941	28.628	11.390	25.367	158.01	263.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.2443	32.045	.16738	-.63661	2.325	1.9624	.85778	1.8637
Stddev	.5482	6.978	.27584	.61095	.768	1.9020	.49671	.0856
%RSD	16.896	21.776	164.80	95.970	33.03	96.924	57.906	4.5929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 3:46:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.87603	-.94444	-.05081	-3.8005	-1.1845
Stddev	.24032	1.2207	.02684	3.1147	1.8085
%RSD	27.432	129.25	52.826	81.956	152.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8239.8	4838.2	62519.	8817.8
Stddev	14.6	7.2	145.	28.1
%RSD	.17707	.14786	.23113	.31891

Sample Name: 240-82060-d-24-a Acquired: 7/13/2017 3:50:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10481	50.592	2.9951	113.49	137.89	.03980	85306.	-.0371
Stddev	.37916	13.125	1.0623	1.00	.68	.09866	265.	.0749
%RSD	361.76	25.943	35.466	.88438	.49102	247.91	.31036	201.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03795	.80759	.75238	1010.9	1073.3	1.8590	17246.	188.98
Stddev	.27173	.28911	.12366	3.6	7.6	1.1166	149.	.71
%RSD	716.10	35.799	16.435	.35131	.71045	60.065	.86518	.37457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.0619	16605.	1.0292	2.2420	1.886	-2.3452	1.7088	1.3476
Stddev	.1026	40.	.3307	.8926	1.441	.6253	.7774	.0280
%RSD	2.5248	.24157	32.130	39.813	76.41	26.661	45.495	2.0768
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-24-a Acquired: 7/13/2017 3:50:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.26232	-.04513	2.6566	7167.4	182.96
Stddev	.87489	.79899	.1997	43.2	5.98
%RSD	333.52	1770.4	7.5167	.60271	3.2688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7573.5	4638.7	60089.	8703.8
Stddev	7.7	6.1	53.	27.9
%RSD	.10118	.13117	.08843	.32108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.196%	93.991%	94.491%	94.033%
Range				

Sample Name: 240-82060-d-25-a Acquired: 7/13/2017 3:55:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.22298	4671.8	3.7332	47.234	60.290	.20033	74316.	.1682
Stddev	.07532	39.9	1.3568	.149	.624	.23001	330.	.0481
%RSD	33.781	.85391	36.344	.31502	1.0347	114.82	.44368	28.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3586	13.162	10.259	5522.5	3058.0	5.9728	18335.	142.51
Stddev	.0518	.379	.570	71.4	45.3	1.7102	210.	.26
%RSD	2.1958	2.8777	5.5541	1.2929	1.4798	28.633	1.1468	.18188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.614	5369.4	6.9920	7.9745	1.038	1.1124	.47462	119.91
Stddev	.272	23.7	.3119	.6200	1.360	.5341	.26660	1.20
%RSD	1.2600	.44144	4.4611	7.7745	131.0	48.016	56.171	1.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-25-a Acquired: 7/13/2017 3:55:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.21304	8.9482	34.659	12665.	266.97
Stddev	.57373	4.3955	.518	143.	2.37
%RSD	269.30	49.122	1.4951	1.1263	.88924
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7672.0	4739.0	61103.	8871.9
Stddev	15.4	9.6	112.	30.1
%RSD	.20064	.20175	.18308	.33918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.369%	96.022%	96.086%	95.849%
Range				

Sample Name: 240-82060-d-26-a Acquired: 7/13/2017 3:59:19 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.03931	4355.7	2.4491	315.09	93.334	.15683	130220.
Stddev	.19915	59.2	1.5878	1.55	1.585	.18020	1533.
%RSD	506.58	1.3583	64.834	.49202	1.6978	114.90	1.1776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1945	1.5713	11.071	7.9949	5310.4	3588.7	14.629
Stddev	.0983	.1772	.250	.2576	70.4	60.6	2.228
%RSD	50.55	11.279	2.2613	3.2224	1.3252	1.6890	15.231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27884.	107.98	3.2473	11432.	6.4803	6.0092	1.500
Stddev	380.	1.12	.1954	123.	1.0679	1.7058	.377
%RSD	1.3629	1.0344	6.0181	1.0791	16.479	28.386	25.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-26-a Acquired: 7/13/2017 3:59:19 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.70407	1.1478	117.29	.03816	4.4705	18.394	17217.
Stddev	1.1818	.5430	2.21	.88826	1.6781	.373	278.
%RSD	167.85	47.312	1.8850	2327.9	37.537	2.0256	1.6150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	344.59
Stddev	3.60
%RSD	1.0445
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7385.2	4626.5	59841.	8770.5
Stddev	12.2	.7	413.	75.9
%RSD	.16534	.01485	.68968	.86520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.954%	93.743%	94.101%	94.754%
Range				

Sample Name: 240-82060-d-28-a Acquired: 7/13/2017 4:03:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17444	410.93	.59325	153.75	14.645	-.09308	62320.	-.0201
Stddev	.27957	12.89	1.2203	1.84	.093	.06505	299.	.1385
%RSD	160.27	3.1360	205.70	1.1988	.63394	69.881	.47933	690.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11702	1.9157	.69825	491.96	1646.8	-2.7509	10391.	10.419
Stddev	.06580	.1218	.63739	9.21	50.1	1.9068	87.	.026
%RSD	56.232	6.3591	91.284	1.8713	3.0394	69.314	.83751	.25104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1619	4923.7	1.2848	1.3873	1.151	10.647	-.33484	11.582
Stddev	.1496	29.6	.3967	.6056	1.962	.283	.32156	.247
%RSD	12.877	.60023	30.876	43.656	170.5	2.6564	96.034	2.1291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-28-a Acquired: 7/13/2017 4:03:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.00026	-1.8751	-.25111	5957.5	597.91
Stddev	.90789	1.7553	.15517	117.9	9.52
%RSD	355970.	93.613	61.794	1.9789	1.5930
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7805.4	4724.3	61382.	8845.4
Stddev	10.0	2.2	182.	68.0
%RSD	.12818	.04709	.29609	.76911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.958%	95.723%	96.526%	95.562%
Range				

Sample Name: 240-82060-d-29-a Acquired: 7/13/2017 4:07:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.02286	29.284	1.4152	176.55	53.696	-.01779	117700.
Stddev	.33246	10.353	2.1654	2.50	.257	.04572	660.
%RSD	1454.5	35.355	153.01	1.4165	.47898	257.07	.56104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2045	3.4355	1.0592	1.0019	7.1712	3681.7	10.520
Stddev	.1418	.0875	.2369	.4569	1.9476	47.8	1.889
%RSD	69.34	2.5479	22.366	45.603	27.159	1.2988	17.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19691.	1524.8	1.8963	10234.	5.8947	1.0973	1.319
Stddev	308.	5.1	.2538	64.	.4413	1.2189	.579
%RSD	1.5635	.33738	13.383	.62193	7.4865	111.08	43.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-29-a Acquired: 7/13/2017 4:07:58 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.8267	.83582	-.04162	.29570	-.80123	-.20769	5033.4
Stddev	1.6586	1.6146	.28527	.67143	.44620	.20921	111.1
%RSD	18.791	193.17	685.43	227.07	55.689	100.73	2.2074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	4227.6
Stddev	83.6
%RSD	1.9770
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7497.2	4606.1	59527.	8746.8
Stddev	11.2	6.2	202.	55.1
%RSD	.14901	.13380	.33927	.63004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.288%	93.329%	93.608%	94.497%
Range				

Sample Name: 240-82060-d-30-a Acquired: 7/13/2017 4:12:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26323	12996.	143.17	154.12	170.02	.72539	265760.
Stddev	.19361	87.	.92	.81	.56	.08416	1436.
%RSD	73.552	.66998	.64081	.52637	.33011	11.602	.54014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.5170	8.9536	21.815	35.422	60125.	6602.5	24.725
Stddev	.0153	.1961	.297	.226	331.	27.2	.817
%RSD	2.957	2.1901	1.3634	.63876	.55001	.41241	3.3042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	72568.	1210.2	37.826	16855.	24.804	35.157	2.647
Stddev	446.	8.6	.390	69.	.469	.750	.930
%RSD	.61421	.71442	1.0300	.40827	1.8893	2.1344	35.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-30-a Acquired: 7/13/2017 4:12:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36130	3.0571	503.25	.66918	37.290	105.35	31015.
Stddev	2.8719	.1041	1.51	1.2017	3.001	.12	170.
%RSD	794.89	3.4035	.30019	179.58	8.0476	.11563	.54732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	684.16
Stddev	3.29
%RSD	.48081
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6964.2	4584.3	59250.	8858.2
Stddev	21.7	11.8	241.	55.2
%RSD	.31124	.25631	.40605	.62303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.940%	92.888%	93.173%	95.701%
Range				

Sample Name: 240-82060-d-32-a Acquired: 7/13/2017 4:16:34 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.23815	347.95	7.1901	68.182	183.77	.12294	302640.
Stddev	.24708	8.83	1.9705	1.173	.28	.12434	1338.
%RSD	103.75	2.5369	27.406	1.7210	.15128	101.14	.44207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0444	.41518	1.5974	6.1453	501.78	5862.6	41.072
Stddev	.0907	.07272	.2881	.2344	.50	48.3	.749
%RSD	204.3	17.516	18.037	3.8151	.09922	.82335	1.8233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13553.	48.221	7.1322	18740.	5.1346	8.9281	4.232
Stddev	9.	.415	.3622	74.	.6458	2.1787	1.666
%RSD	.06934	.85978	5.0785	.39333	12.577	24.402	39.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-32-a Acquired: 7/13/2017 4:16:34 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.6327	.59839	3.6693	.50325	1.3789	34.538	8984.5
Stddev	1.0659	.81058	.1621	1.0233	1.5606	1.091	115.8
%RSD	65.287	135.46	4.4192	203.34	113.18	3.1597	1.2886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1218.9
Stddev	19.9
%RSD	1.6338
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7048.8	4461.4	58350.	8687.6
Stddev	25.5	10.0	354.	17.6
%RSD	.36149	.22430	.60687	.20297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.948%	90.398%	91.757%	93.858%
Range				

Sample Name: 240-82060-d-33-a Acquired: 7/13/2017 4:21:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.65072	213.94	3.9124	177.07	104.42	-.01710	119880.
Stddev	.09378	18.34	.3358	2.66	.84	.13080	298.
%RSD	14.412	8.5740	8.5841	1.5047	.80605	764.92	.24822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4811	10.263	1.5536	3.9042	915.12	3867.3	6.3029
Stddev	.2179	.280	.2983	.2389	1.65	30.2	1.9177
%RSD	45.28	2.7305	19.202	6.1191	.17979	.78095	30.426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24352.	5208.7	2.8514	11328.	9.5240	3.3002	1.954
Stddev	120.	28.0	.1837	53.	.4430	.7399	1.687
%RSD	.49213	.53686	6.4418	.46804	4.6511	22.420	86.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-33-a Acquired: 7/13/2017 4:21:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.1403	.80842	5.4060	-.88530	-1.7945	15.440	6060.0
Stddev	3.7743	.79120	.4358	.82605	2.8571	.794	61.6
%RSD	176.35	97.870	8.0611	93.307	159.22	5.1394	1.0170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	564.91
Stddev	13.37
%RSD	2.3661
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7478.2	4641.8	59979.	8746.5
Stddev	15.6	10.5	111.	5.9
%RSD	.20830	.22609	.18588	.06784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.061%	94.052%	94.319%	94.495%
Range				

Sample Name: 240-82060-e-22-a Acquired: 7/13/2017 4:25:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04315	29.090	2.6183	282.68	41.636	.16469	134110.
Stddev	.14466	5.344	1.8064	2.09	.626	.08785	397.
%RSD	335.26	18.370	68.992	.74047	1.5025	53.342	.29638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0621	.03401	1.1998	1.8686	3.9683	3169.6	6.1638
Stddev	.2029	.07091	.2468	.1789	1.5287	54.8	.1305
%RSD	326.6	208.49	20.567	9.5733	38.523	1.7301	2.1167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21701.	6.7159	.56658	11224.	1.2985	2.0082	.1744
Stddev	191.	.0514	.10867	56.	.7416	1.1521	1.427
%RSD	.87920	.76491	19.180	.50314	57.110	57.369	818.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-22-a Acquired: 7/13/2017 4:25:31 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.6326	-.06453	.01584	-.65152	-.68198	1.3823	6154.4
Stddev	1.8216	.38518	.19557	2.1834	3.3629	.1474	100.7
%RSD	50.147	596.86	1234.9	335.13	493.11	10.663	1.6365
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	598.37
Stddev	9.14
%RSD	1.5282
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7455.9	4613.5	59709.	8809.1
Stddev	21.0	11.8	107.	42.5
%RSD	.28175	.25657	.17929	.48238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.796%	93.479%	93.895%	95.171%
Range				

Sample Name: 240-82060-e-23-a Acquired: 7/13/2017 4:29:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06258	34.482	.06600	238.70	28.284	-.02456	97539.	.0054
Stddev	.13962	15.155	1.2094	2.23	.236	.14341	171.	.1433
%RSD	223.12	43.951	1832.6	.93479	.83524	583.98	.17545	2662.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08779	1.0201	.33727	2.5462	5908.5	2.3624	19206.	-.03116
Stddev	.21523	.4458	.38413	1.3963	72.5	1.5373	90.	.03048
%RSD	245.18	43.703	113.90	54.838	1.2264	65.075	.46737	97.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.76821	8110.4	.92706	1.5241	.3972	9.0743	-.01245	.14954
Stddev	.04112	15.1	.45847	1.3989	2.664	2.1663	.23437	.11859
%RSD	5.3526	.18669	49.455	91.784	670.8	23.873	1882.1	79.303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-23-a Acquired: 7/13/2017 4:29:49 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.23666	-3.5533	-.57371	5916.2	614.59
Stddev	.68498	.1819	.08381	42.5	10.92
%RSD	289.43	5.1185	14.609	.71912	1.7772
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7566.0	4649.5	60640.	8848.2
Stddev	64.3	40.9	17.	27.3
%RSD	.84982	.87909	.02854	.30904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.107%	94.209%	95.358%	95.593%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 4:34:11 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1004.9	23952.	508.01	5061.7	1988.9	1996.0	48773.	505.5
Stddev	.9	143.	3.30	17.3	4.9	3.6	177.	3.2
%RSD	.08656	.59808	.64885	.34220	.24695	.18107	.36319	.6366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2006.1	1951.5	1980.3	23711.	49656.	4838.3	47871.	1967.7
Stddev	13.5	4.5	1.7	54.	168.	28.7	304.	3.2
%RSD	.67536	.22935	.08524	.22933	.33848	.59317	.63466	.16297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1917.8	50324.	2013.3	484.19	511.5	505.33	5071.0	4938.1
Stddev	12.1	176.	13.1	5.12	3.6	2.52	33.4	45.0
%RSD	.62967	.34965	.64944	1.0574	.7080	.49946	.65952	.91131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 4:34:11 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	996.91	1890.2	2032.0	4756.3	4826.4
Stddev	8.17	7.6	11.0	68.7	33.3
%RSD	.81924	.40453	.54253	1.4447	.69085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7094.5	4585.9	58870.	8578.6
Stddev	18.5	7.5	80.	24.3
%RSD	.26028	.16294	.13601	.28373

Sample Name: CCB Acquired: 7/13/2017 4:38:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40405	17.551	-.31539	8.2447	-.00743	-.05525	-5.7255	-.0089
Stddev	.45394	25.428	1.5513	.8113	.20794	.14059	3.6677	.1366
%RSD	112.35	144.87	491.87	9.8407	2797.8	254.47	64.060	1529.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03918	.05777	.11098	.24948	-191.88	-6.9717	-12.946	-.05021
Stddev	.41170	.31502	.70840	1.4187	16.96	.1944	27.132	.06361
%RSD	1050.9	545.30	638.34	568.66	8.8403	2.7887	209.57	126.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.1011	27.185	.18665	2.2197	.9428	.80336	.36485	2.0352
Stddev	.3092	3.389	.29181	1.1610	.5802	1.5109	.40625	.1655
%RSD	9.9714	12.467	156.34	52.305	61.54	188.07	111.34	8.1327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 4:38:16 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.46385	-.80371	-.12740	.34192	-1.1871
Stddev	1.5036	2.9191	.12499	12.401	6.1782
%RSD	324.17	363.20	98.109	3626.7	520.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8185.6	4797.2	62628.	8728.1
Stddev	9.7	5.2	90.	13.9
%RSD	.11791	.10937	.14429	.15871

Sample Name: 240-82060-e-24-a Acquired: 7/13/2017 4:42:40 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26840	27.147	1.2459	111.35	136.61	.08595	84538.	.0661
Stddev	.43332	22.802	1.4171	1.37	.48	.09623	498.	.1891
%RSD	161.45	83.993	113.74	1.2291	.35198	111.97	.58924	285.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03006	1.1733	.32633	945.34	1064.5	-.27959	16958.	187.05
Stddev	.10192	.5175	.49835	7.63	26.1	1.2055	8.	.67
%RSD	339.05	44.105	152.71	.80751	2.4513	431.15	.04974	.35993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.7365	16543.	.56192	2.3417	2.833	-.54270	2.1235	.72391
Stddev	.2320	54.	.14896	1.1109	1.410	2.5181	.5461	.05244
%RSD	6.2085	.32435	26.509	47.438	49.75	464.00	25.716	7.2441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-24-a Acquired: 7/13/2017 4:42:40 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.51311	-.88743	5.0238	7049.9	176.55
Stddev	1.2458	.43177	.0818	43.3	3.64
%RSD	242.80	48.653	1.6279	.61472	2.0619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7602.3	4655.6	60336.	8764.5
Stddev	38.1	25.7	145.	42.4
%RSD	.50073	.55219	.24080	.48326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.540%	94.332%	94.881%	94.689%
Range				

Sample Name: 240-82060-e-25-a Acquired: 7/13/2017 4:47:00 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09633	10.489	.18616	38.875	26.559	.03392	56093.	.0483
Stddev	.29519	4.834	2.9492	.777	.216	.19715	558.	.0500
%RSD	306.43	46.083	1584.3	1.9991	.81234	581.18	.99403	103.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.11038	1.3528	.70383	6.7170	1575.2	-.06939	13993.	1.9868
Stddev	.29321	.3241	.32237	.0983	38.0	.03539	80.	.0405
%RSD	265.62	23.961	45.802	1.4631	2.4106	51.001	.57302	2.0358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.480	4734.3	.66181	1.1641	1.757	-.91847	2.4718	.52268
Stddev	.532	20.0	.09845	.3425	.864	4.2652	.4689	.19864
%RSD	2.4784	.42203	14.876	29.424	49.20	464.38	18.971	38.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-25-a Acquired: 7/13/2017 4:47:00 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.19301	.62287	-.25718	4009.1	247.50
Stddev	1.5632	2.3607	.26347	30.4	1.89
%RSD	809.87	379.01	102.45	.75733	.76379
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7787.3	4719.1	61366.	8764.8
Stddev	11.7	11.4	121.	33.3
%RSD	.15087	.24086	.19637	.37962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.742%	95.618%	96.500%	94.692%
Range				

Sample Name: 240-82060-e-26-a Acquired: 7/13/2017 4:51:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17358	127.68	2.6514	313.17	61.821	-.05021	108390.
Stddev	.45513	18.72	1.7835	1.98	.015	.23464	17.
%RSD	262.20	14.664	67.266	.63287	.02347	467.29	.01585
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0194	.12926	1.3808	3.2269	252.37	2065.0	8.7323
Stddev	.0315	.22631	.1385	.1604	2.40	69.8	.9672
%RSD	162.0	175.08	10.029	4.9706	.95075	3.3825	11.076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23336.	15.826	2.1576	10645.	2.0244	1.2177	1.973
Stddev	206.	.166	.0866	25.	.3016	.5667	2.427
%RSD	.88286	1.0467	4.0157	.23617	14.897	46.537	123.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-26-a Acquired: 7/13/2017 4:51:22 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.67865	.00793	3.1737	-.00235	-.71755	2.1282	9432.2
Stddev	.91148	.61503	.2135	.42472	1.2281	.1047	53.7
%RSD	134.31	7756.2	6.7289	18095.	171.15	4.9194	.56881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	304.78
Stddev	6.27
%RSD	2.0583
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7462.3	4592.8	59320.	8723.2
Stddev	2.2	2.4	292.	21.3
%RSD	.02943	.05155	.49216	.24431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.872%	93.059%	93.283%	94.242%
Range				

Sample Name: 240-82060-e-28-a Acquired: 7/13/2017 4:55:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14135	22.617	.66113	156.86	12.662	-.05588	62188.	.0430
Stddev	.09673	10.629	1.0277	1.95	.124	.14152	186.	.0831
%RSD	68.436	46.994	155.45	1.2412	.97701	253.27	.29916	193.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17827	1.4645	.12917	4.5336	1541.8	-2.5219	10320.	-.28649
Stddev	.19121	.2035	.43976	.7361	15.0	1.8688	33.	.01664
%RSD	107.26	13.898	340.44	16.236	.97216	74.104	.32014	5.8088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1944	4973.0	.35532	1.2275	1.496	9.4273	-.07736	.13597
Stddev	.1722	9.9	.46055	.9350	1.917	.4527	.73142	.30268
%RSD	14.419	.19882	129.61	76.173	128.2	4.8023	945.46	222.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-28-a Acquired: 7/13/2017 4:55:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1.9523	-1.8445	-1.8639	5422.0	609.28
Stddev	.9730	1.6547	.1781	75.8	7.34
%RSD	49.839	89.709	9.5574	1.3984	1.2046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7775.4	4694.9	60833.	8845.0
Stddev	15.7	13.1	45.	31.0
%RSD	.20183	.27854	.07413	.35098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.600%	95.129%	95.661%	95.558%
Range				

Sample Name: 240-82060-e-29-a Acquired: 7/13/2017 5:00:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.06251	37.732	.22586	181.27	47.840	-.00676	116130.
Stddev	.27670	17.017	1.8521	2.27	.132	.03087	320.
%RSD	442.63	45.100	820.00	1.2510	.27670	456.54	.27561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0808	.36293	.97046	.44772	.87548	3625.7	8.8499
Stddev	.1481	.12568	.26038	.66744	1.3479	38.5	1.4131
%RSD	183.3	34.631	26.830	149.07	153.96	1.0611	15.968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19662.	6.2401	.64108	10319.	1.8797	2.1028	2.850
Stddev	129.	.0692	.24373	14.	.6180	.8135	1.435
%RSD	.65739	1.1084	38.018	.13935	32.879	38.685	50.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-29-a Acquired: 7/13/2017 5:00:01 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.8074	.44263	-.18361	-.11339	-3.7844	-.82935	4991.7
Stddev	2.5041	.71764	.18233	.65916	3.5455	.14263	53.1
%RSD	28.432	162.13	99.304	581.33	93.688	17.198	1.0632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	4009.0
Stddev	35.8
%RSD	.89357
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7556.7	4643.4	60441.	8808.1
Stddev	5.2	5.0	46.	8.4
%RSD	.06815	.10764	.07602	.09530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.996%	94.085%	95.046%	95.160%
Range				

Sample Name: 240-82060-e-30-a Acquired: 7/13/2017 5:04:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.11626	34.644	8.3984	130.98	43.679	-.07206	55972.	-.0512
Stddev	.48347	25.259	.8218	.79	.339	.12288	291.	.2044
%RSD	415.86	72.910	9.7848	.60396	.77502	170.52	.51982	399.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00608	.83699	.48593	1233.7	2790.1	-2.4737	6302.5	173.08
Stddev	.22260	.24381	.46647	6.8	23.7	.8711	45.7	.20
%RSD	3660.7	29.129	95.995	.55139	.84922	35.215	.72436	.11719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30.240	15100.	1.2617	2.3153	2.793	.14910	.29222	.39889
Stddev	.085	78.	.0291	1.0349	.571	1.0556	.47360	.24201
%RSD	.28052	.51791	2.3092	44.700	20.42	708.01	162.07	60.672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-30-a Acquired: 7/13/2017 5:04:21 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.13679	-3.0250	-.52835	6257.3	465.28
Stddev	.70384	2.0590	.02154	105.9	3.06
%RSD	514.52	68.066	4.0765	1.6928	.65817
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7832.8	4735.6	61681.	8873.8
Stddev	16.0	12.9	109.	50.5
%RSD	.20423	.27217	.17611	.56958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.285%	95.954%	96.996%	95.870%
Range				

Sample Name: 240-82060-e-32-a Acquired: 7/13/2017 5:08:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.16055	13.764	.90460	181.88	78.011	-.06811	115990.
Stddev	.29218	10.541	1.9895	.85	.155	.10828	254.
%RSD	181.99	76.584	219.93	.46732	.19901	158.99	.21870
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0296	.24737	.92924	.24425	23.976	3904.0	6.3945
Stddev	.0287	.14480	.34023	.51881	.885	57.9	.9683
%RSD	96.76	58.535	36.614	212.41	3.6902	1.4837	15.143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24148.	106.48	.84294	11142.	1.3262	2.9274	2.313
Stddev	165.	.49	.16046	25.	.5164	.2141	1.283
%RSD	.68213	.45606	19.036	.22415	38.939	7.3133	55.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-32-a Acquired: 7/13/2017 5:08:41 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.12918	.77515	.39563	-.57729	-3.2762	1.0311	5676.8
Stddev	1.6048	.42061	.35642	1.1243	4.4432	.0658	73.4
%RSD	1242.3	54.262	90.089	194.76	135.62	6.3812	1.2926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	556.49
Stddev	6.11
%RSD	1.0985
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7541.0	4661.1	60596.	8937.6
Stddev	20.3	12.4	266.	16.4
%RSD	.26966	.26543	.43873	.18346
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.809%	94.443%	95.288%	96.559%
Range				

Sample Name: 240-82060-e-33-a Acquired: 7/13/2017 5:13:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26709	18.219	2.9358	94.995	44.467	.02399	50904.	-.0424
Stddev	.14237	1.333	1.0168	.521	.689	.11944	324.	.0413
%RSD	53.304	7.3147	34.635	.54801	1.5502	497.80	.63609	97.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22374	.47042	1.5675	1.0307	3725.4	15.774	11666.	-.25535
Stddev	.21760	.26219	.7814	1.6413	50.1	.403	93.	.04829
%RSD	97.257	55.735	49.850	159.24	1.3448	2.5550	.79299	18.910
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.7441	16514.	1.5901	.59811	3.172	-.40097	.26867	.12194
Stddev	.1995	144.	.6349	1.9061	.118	1.3669	.52175	.13338
%RSD	5.3293	.87368	39.926	318.69	3.721	340.90	194.20	109.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-33-a Acquired: 7/13/2017 5:13:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.94002	-.75112	-2.2602	3458.3	398.23
Stddev	.22253	1.9072	.0483	41.6	9.86
%RSD	23.673	253.91	2.1378	1.2039	2.4772
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7731.2	4701.6	60761.	8918.6
Stddev	7.0	6.0	58.	67.6
%RSD	.09049	.12666	.09605	.75798
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.075%	95.265%	95.549%	96.354%
Range				

Sample Name: mb 240-286654/1-a Acquired: 7/13/2017 5:17:24 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.48068	27.915	.05719	5.4808	1.5294	.00043	544.83	.0495
Stddev	.20409	41.522	1.6903	.6370	.0667	.11359	12.26	.0601
%RSD	42.459	148.74	2955.6	11.623	4.3615	26695.	2.2498	121.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.36922	1.7967	3.5716	23.354	-225.62	-5.8350	103.59	.33196
Stddev	.15872	.2368	.7181	1.430	6.50	1.1395	7.28	.06081
%RSD	42.989	13.182	20.105	6.1229	2.8813	19.529	7.0287	18.319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08470	109.95	1.5743	1.0254	.5847	-2.2685	.82529	.06152
Stddev	.13792	1.08	.4426	.6556	.9255	3.0828	.57906	.25050
%RSD	162.83	.97927	28.116	63.937	158.3	135.90	70.164	407.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: mb 240-286654/1-a Acquired: 7/13/2017 5:17:24 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.92904	-2.8250	5.8332	66.650	-2.0254
Stddev	.46593	2.6627	.2788	6.101	1.3782
%RSD	50.151	94.256	4.7787	9.1532	68.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8277.1	4867.6	62924.	9007.8
Stddev	31.8	16.4	241.	43.7
%RSD	.38420	.33629	.38238	.48489

Sample Name: lcs 240-286654/2-a Acquired: 7/13/2017 5:21:47 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.261	1938.8	2084.6	1034.1	1960.4	49.922	48917.	51.35
Stddev	.370	11.5	2.1	4.9	6.2	.394	172.	.10
%RSD	.70869	.59070	.10052	.47229	.31550	.78908	.35090	.1857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	488.94	194.40	253.46	964.42	49423.	954.93	47934.	488.03
Stddev	1.59	1.63	1.93	7.83	119.	3.82	252.	3.41
%RSD	.32620	.83719	.76093	.81230	.24152	.40012	.52554	.69774
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	935.28	49791.	498.18	483.39	517.7	2090.8	1963.3	972.47
Stddev	2.80	274.	.28	1.53	1.6	7.7	5.6	6.33
%RSD	.29937	.54975	.05661	.31611	.3128	.37063	.28728	.65046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: lcs 240-286654/2-a Acquired: 7/13/2017 5:21:47 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1936.2	475.72	498.52	1061.8	980.93
Stddev	4.1	4.39	.58	14.8	5.37
%RSD	.21317	.92207	.11732	1.3962	.54720
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7364.1	4624.4	60344.	8861.4
Stddev	20.4	13.3	352.	41.6
%RSD	.27739	.28779	.58379	.46984

Sample Name: CCV-3141968 Acquired: 7/13/2017 5:25:46 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1003.6	24018.	506.72	5061.7	1991.1	1978.9	48640.	503.9
Stddev	3.8	147.	4.87	27.6	11.7	7.4	287.	4.4
%RSD	.37429	.61225	.96070	.54581	.58839	.37193	.59014	.8656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1987.8	1943.2	1982.2	23730.	49579.	4867.8	47656.	1954.6
Stddev	19.2	7.1	7.2	164.	313.	30.8	305.	23.7
%RSD	.96772	.36517	.36156	.69292	.63035	.63209	.64066	1.2135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1912.4	50214.	1992.1	481.36	514.4	508.83	5018.9	4929.2
Stddev	23.8	277.	18.3	3.08	3.6	3.58	51.4	40.1
%RSD	1.2440	.55175	.91696	.64042	.7048	.70276	1.0245	.81405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 5:25:46 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	990.95	1890.0	2011.7	4731.4	4808.7
Stddev	9.64	15.4	18.0	50.8	27.1
%RSD	.97321	.81370	.89721	1.0734	.56311
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7150.2	4601.5	59288.	8702.3
Stddev	14.0	7.0	160.	33.0
%RSD	.19543	.15314	.26927	.37887

Sample Name: CCB Acquired: 7/13/2017 5:29:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.48036	13.475	.75408	7.7739	-.22170	-.04477	-10.040	-.0409
Stddev	.28835	8.540	1.8633	.8325	.03604	.17552	1.885	.0210
%RSD	60.029	63.378	247.10	10.708	16.254	392.00	18.774	51.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27219	.28925	.15207	1.4252	-189.06	-5.7122	-31.384	.04446
Stddev	.19102	.17646	.40995	1.9145	14.47	1.4363	11.651	.02003
%RSD	70.179	61.007	269.59	134.33	7.6549	25.144	37.125	45.051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.5347	14.877	.44718	.78809	1.515	2.7363	.73791	2.0957
Stddev	.3990	.889	.44525	1.0787	1.240	2.2180	.43976	.2378
%RSD	11.289	5.9746	99.569	136.87	81.84	81.055	59.595	11.349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 5:29:52 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.67293	-1.9160	-.21301	2.8368	-3.5773
Stddev	.77145	2.3399	.07993	8.1257	1.4878
%RSD	114.64	122.12	37.525	286.44	41.590
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8325.2	4874.7	63180.	8830.6
Stddev	31.9	16.7	197.	37.8
%RSD	.38273	.34167	.31228	.42823

Sample Name: 240-82060-l-31-a Acquired: 7/13/2017 5:34:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.35454	500.32	1.4179	223.82	63.004	.02145	103560.
Stddev	.39345	13.07	1.0588	1.01	.295	.09329	504.
%RSD	110.98	2.6124	74.677	.45114	.46762	435.00	.48660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0983	7.3950	1.9067	.91014	488.00	5768.3	18.320
Stddev	.1097	.3837	.4853	.33076	4.30	146.4	1.853
%RSD	111.6	5.1893	25.454	36.342	.88172	2.5378	10.116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17847.	2141.5	2.0992	8607.2	3.3968	4.6570	1.098
Stddev	53.	5.2	.3832	55.1	.5859	.8892	.727
%RSD	.29917	.24409	18.255	.64014	17.250	19.094	66.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-31-a Acquired: 7/13/2017 5:34:18 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0707	.49909	17.249	-.01194	-1.5445	2.1129	8518.5
Stddev	1.4607	.63959	.762	.55128	.5705	.2281	48.2
%RSD	47.570	128.15	4.4158	4616.0	36.938	10.794	.56538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1018.4
Stddev	4.4
%RSD	.43503
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7623.7	4668.7	60580.	8942.8
Stddev	10.5	14.0	107.	25.3
%RSD	.13750	.29981	.17616	.28235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.794%	94.597%	95.264%	96.615%
Range				

Sample Name: SD 240-82060-l-31a@5 Acquired: 7/13/2017 5:38:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16279	96.453	.90762	44.686	12.675	-.23059	21109.	.0348
Stddev	.33856	11.585	1.4295	.481	.191	.07141	91.	.0481
%RSD	207.97	12.011	157.50	1.0754	1.5041	30.967	.42907	138.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4926	.77887	.68550	97.881	1014.1	-2.3937	3658.3	432.60
Stddev	.0334	.32007	.40825	1.034	29.6	.3563	62.9	1.77
%RSD	2.2400	41.094	59.556	1.0562	2.9154	14.883	1.7199	.40803
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.38358	1737.8	.67450	.90563	1.776	1.2136	.12837	3.6357
Stddev	.15250	13.5	.35050	1.7696	.570	1.9992	.27154	.5284
%RSD	39.757	.77799	51.964	195.40	32.10	164.74	211.53	14.535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SD 240-82060-l-31a@5 Acquired: 7/13/2017 5:38:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.38775	1.0374	-1.2453	1705.9	203.28
Stddev	.28829	1.8141	.1470	35.5	4.39
%RSD	74.350	174.87	11.801	2.0823	2.1586
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8130.3	4817.6	62455.	8866.5
Stddev	20.0	13.9	172.	19.2
%RSD	.24623	.28824	.27469	.21708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.827%	97.615%	98.213%	95.791%
Range				

Sample Name: PDS 240-82060-l-31-a Acquired: 7/13/2017 5:43:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.647	2529.5	2206.6	1327.0	2130.9	51.156	153670.
Stddev	.369	25.2	12.4	5.5	6.7	.670	607.
%RSD	.67458	.99536	.56325	.41718	.31370	1.3099	.39502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.89	531.45	205.56	267.13	1471.7	57817.	1042.8
Stddev	.18	1.60	1.26	1.83	9.9	292.	8.5
%RSD	.3392	.30157	.61528	.68647	.67527	.50561	.81064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	65849.	2627.0	1008.4	61194.	529.68	505.30	526.5
Stddev	490.	22.6	8.2	269.	.74	1.47	8.4
%RSD	.74448	.85892	.81150	.43934	.13898	.29057	1.588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: PDS 240-82060-l-31-a Acquired: 7/13/2017 5:43:02 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2202.7	2150.7	1054.8	2054.3	495.61	528.23	9530.4
Stddev	15.8	18.3	6.7	8.9	3.77	2.50	72.7
%RSD	.71905	.84973	.63119	.43102	.75979	.47344	.76284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1990.2
Stddev	10.0
%RSD	.50112
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6959.9	4498.5	58131.	8760.7
Stddev	8.5	5.1	290.	39.3
%RSD	.12188	.11413	.49848	.44872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.888%	91.149%	91.412%	94.647%
Range				

Sample Name: 240-82060-l-31-b ms Acquired: 7/13/2017 5:47:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.080	2547.3	2153.5	1287.5	2077.4	50.108	155700.
Stddev	.228	12.1	3.7	.9	1.4	.400	273.
%RSD	.42144	.47478	.17082	.06809	.06939	.79884	.17562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.65	512.66	200.23	260.15	1459.2	56521.	1003.6
Stddev	.03	3.94	.78	.90	8.6	160.	1.0
%RSD	.0539	.76833	.39125	.34663	.58904	.28367	.10037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64896.	2705.8	972.20	59636.	515.83	491.00	540.1
Stddev	98.	25.1	5.03	197.	2.20	3.04	1.1
%RSD	.15112	.92924	.51733	.33077	.42589	.61927	.2077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-31-b ms Acquired: 7/13/2017 5:47:04 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2138.5	2060.4	1014.4	1985.5	487.41	514.18	9705.7
Stddev	7.6	13.3	3.7	11.2	4.26	2.23	15.1
%RSD	.35646	.64537	.36934	.56543	.87392	.43406	.15562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1989.3
Stddev	6.4
%RSD	.32242
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6977.4	4509.7	58204.	8753.3
Stddev	13.0	11.1	200.	23.8
%RSD	.18658	.24602	.34276	.27236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.097%	91.376%	91.528%	94.568%
Range				

Sample Name: 240-82060-l-31-c msd Acquired: 7/13/2017 5:51:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	54.971	2606.7	2176.5	1294.3	2066.8	50.018	151840.
Stddev	.178	36.3	18.3	8.6	10.0	.595	867.
%RSD	.32456	1.3939	.83851	.66487	.48157	1.1899	.57097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.78	514.42	200.53	260.97	1450.4	56246.	1000.1
Stddev	.20	3.98	.04	1.78	6.2	262.	3.8
%RSD	.3794	.77272	.02119	.68356	.42571	.46582	.38369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64056.	2646.1	976.35	59060.	518.94	492.71	540.6
Stddev	329.	10.2	7.19	284.	3.50	3.55	6.0
%RSD	.51366	.38532	.73679	.48151	.67397	.72011	1.116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-l-31-c msd Acquired: 7/13/2017 5:51:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2161.8	2071.5	1017.0	2000.8	482.72	517.49	9564.0
Stddev	12.2	25.9	6.7	15.9	1.27	5.30	29.4
%RSD	.56490	1.2514	.65459	.79677	.26273	1.0237	.30695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1963.1
Stddev	11.5
%RSD	.58609
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7008.5	4524.2	58547.	8844.1
Stddev	28.1	22.6	129.	43.1
%RSD	.40024	.49864	.22104	.48762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.467%	91.669%	92.067%	95.549%
Range				

Sample Name: 240-82060-k-31-a Acquired: 7/13/2017 5:55:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.24724	381.01	3.9252	225.25	63.052	.05638	104800.
Stddev	.29459	10.93	1.8179	1.25	.136	.08983	158.
%RSD	119.15	2.8687	46.313	.55331	.21557	159.32	.15078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0475	6.8517	1.2766	4.5588	441.56	5817.0	18.215
Stddev	.1181	.2113	.1353	.3919	6.03	115.8	.461
%RSD	248.4	3.0844	10.598	8.5964	1.3663	1.9904	2.5311
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17952.	1910.1	4.9828	8769.8	3.7419	2.5288	1.856
Stddev	195.	23.1	.4144	46.7	.2393	1.7325	2.546
%RSD	1.0857	1.2084	8.3172	.53291	6.3945	68.509	137.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-k-31-a Acquired: 7/13/2017 5:55:05 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.0425	.75332	11.910	1.3378	.37876	3.1124	8309.9
Stddev	2.5003	.75749	.645	.7481	1.0416	.2212	176.8
%RSD	41.379	100.55	5.4134	55.920	275.00	7.1065	2.1279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1024.4
Stddev	15.0
%RSD	1.4664
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7559.5	4644.3	60748.	8861.6
Stddev	29.5	19.0	128.	30.8
%RSD	.38981	.40889	.21080	.34704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.029%	94.102%	95.528%	95.738%
Range				

Sample Name: 240-82060-k-31-b ms Acquired: 7/13/2017 5:59:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.708	2446.4	2134.4	1276.2	2066.3	51.347	150800.
Stddev	.375	24.7	6.2	1.4	5.2	.176	595.
%RSD	.69792	1.0106	.29048	.11024	.24985	.34366	.39438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.97	504.27	195.52	253.73	1368.4	56720.	1012.3
Stddev	.09	1.46	.82	1.83	5.5	141.	4.4
%RSD	.1685	.28891	.41995	.72233	.39925	.24914	.43878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64965.	2305.7	957.59	59886.	509.27	486.02	533.3
Stddev	439.	13.4	4.82	250.	.48	1.23	3.2
%RSD	.67521	.57975	.50344	.41810	.09348	.25334	.5946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-k-31-b ms Acquired: 7/13/2017 5:59:28 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2120.1	2032.5	1000.9	1955.6	482.42	508.94	9172.3
Stddev	3.1	7.8	5.3	3.6	1.83	.65	33.0
%RSD	.14726	.38328	.52500	.18506	.38004	.12714	.35966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1962.4
Stddev	5.3
%RSD	.26935
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7055.7	4534.2	59183.	8733.9
Stddev	10.7	5.2	301.	31.5
%RSD	.15171	.11530	.50808	.36015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.029%	91.873%	93.066%	94.358%
Range				

Sample Name: 240-82060-k-31-c msd Acquired: 7/13/2017 6:03:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.835	2445.6	2142.0	1276.4	2062.6	50.056	151670.
Stddev	.384	10.1	12.0	5.6	11.2	.313	738.
%RSD	.72641	.41211	.56114	.43924	.54363	.62533	.48663
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	52.13	506.66	196.19	254.34	1382.7	56463.	1003.8
Stddev	.42	3.82	.94	.33	9.8	295.	2.4
%RSD	.8101	.75360	.47788	.13134	.71195	.52228	.23868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	64387.	2417.6	962.67	59524.	511.14	487.89	533.7
Stddev	288.	12.3	8.32	165.	2.99	2.54	3.7
%RSD	.44752	.50744	.86419	.27737	.58459	.52140	.6920
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-k-31-c msd Acquired: 7/13/2017 6:03:30 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2134.3	2035.3	995.04	1967.2	484.61	509.88	9277.1
Stddev	15.2	14.6	4.76	17.6	3.16	3.50	29.8
%RSD	.71259	.71656	.47851	.89605	.65252	.68600	.32163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1951.1
Stddev	16.6
%RSD	.84825
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7010.0	4516.3	58828.	8717.4
Stddev	18.4	5.6	119.	39.3
%RSD	.26261	.12437	.20163	.45125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.485%	91.510%	92.508%	94.179%
Range				

Sample Name: 240-82060-d-11-a Acquired: 7/13/2017 6:07:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14067	175.87	3.8894	469.40	37.712	.02265	132780.
Stddev	.58148	12.15	.6069	2.84	.281	.10577	430.
%RSD	413.37	6.9091	15.603	.60433	.74453	467.04	.32366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0360	.37319	1.4067	.81147	180.04	720.05	.23022
Stddev	.0718	.24263	.3164	.43765	3.16	49.63	1.0661
%RSD	199.1	65.015	22.495	53.933	1.7562	6.8928	463.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28506.	27.315	4.3507	27184.	2.1945	1.2684	3.323
Stddev	298.	.081	.1545	97.	.3216	1.6180	1.386
%RSD	1.0457	.29599	3.5519	.35542	14.657	127.56	41.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-11-a Acquired: 7/13/2017 6:07:32 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1933	.96164	5.3584	1.2355	-1.2746	-.20537	5281.1
Stddev	.2752	.45617	.2150	1.3688	3.1396	.08016	83.7
%RSD	23.061	47.436	4.0121	110.80	246.32	39.032	1.5843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	666.46
Stddev	12.16
%RSD	1.8238
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7351.5	4583.1	59875.	8842.2
Stddev	62.2	41.6	208.	38.5
%RSD	.84545	.90733	.34789	.43499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.552%	92.864%	94.156%	95.528%
Range				

Sample Name: 240-82060-d-12-a Acquired: 7/13/2017 6:11:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.55222	40.165	3.9990	185.49	58.336	.02816	125900.
Stddev	.20334	26.936	1.2111	2.11	.198	.11132	117.
%RSD	36.823	67.063	30.284	1.1369	.33958	395.37	.09329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1037	4.6700	1.2273	.73003	9.1835	3882.0	8.2880
Stddev	.1201	.2093	.0204	.54441	1.7680	26.6	.7756
%RSD	115.8	4.4819	1.6620	74.573	19.252	.68416	9.3584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20744.	1766.2	3.3113	10696.	7.6744	1.9922	3.484
Stddev	108.	6.4	.1594	22.	.3635	1.2022	2.212
%RSD	.51872	.36039	4.8152	.20184	4.7359	60.345	63.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-12-a Acquired: 7/13/2017 6:11:51 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.238	.16565	.28841	.78411	-2.0957	-.56342	5326.3
Stddev	1.961	.37080	.16366	.66458	2.5050	.11447	56.6
%RSD	19.158	223.84	56.745	84.755	119.53	20.317	1.0623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	4805.5
Stddev	54.7
%RSD	1.1390
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7494.0	4633.1	59752.	8834.2
Stddev	15.3	8.8	153.	6.1
%RSD	.20379	.18914	.25618	.06912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.250%	93.876%	93.962%	95.442%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 6:16:12 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1010.1	24152.	506.29	5070.7	2001.8	1978.1	48809.	504.9
Stddev	2.2	74.	3.11	26.6	6.2	6.8	139.	1.0
%RSD	.21702	.30529	.61395	.52371	.30886	.34202	.28384	.1973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2005.2	1964.6	1994.4	23831.	49803.	4873.2	47678.	1974.0
Stddev	2.4	5.0	3.0	62.	146.	18.7	143.	22.6
%RSD	.11948	.25527	.14881	.25908	.29254	.38404	.29909	1.1445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1921.6	50467.	2009.2	486.11	514.7	505.58	5062.2	4962.2
Stddev	2.9	146.	2.8	.32	2.3	1.73	6.6	36.4
%RSD	.14886	.28887	.13831	.06680	.4523	.34308	.13094	.73402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 6:16:12 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	997.62	1898.9	2023.5	4781.6	4828.6
Stddev	6.30	14.2	3.2	55.0	7.5
%RSD	.63102	.74791	.15901	1.1494	.15472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7140.4	4612.0	59049.	8689.6
Stddev	16.8	18.9	98.	16.5
%RSD	.23554	.40969	.16607	.19019

Sample Name: CCB Acquired: 7/13/2017 6:20:19 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.33224	24.880	1.2032	9.3678	-.13559	.16042	8.1043	-.0523
Stddev	.13385	25.879	1.0634	.9785	.09669	.16039	3.8351	.0921
%RSD	40.287	104.01	88.379	10.445	71.308	99.978	47.322	176.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09072	.45382	1.0581	2.5317	-197.79	-7.0927	14.065	.11245
Stddev	.10311	.18979	.5963	.6688	9.62	.8167	29.856	.03605
%RSD	113.65	41.822	56.360	26.416	4.8626	11.515	212.27	32.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0602	22.408	-.26791	.84622	3.672	-1.4834	.53547	2.3833
Stddev	.2419	7.944	.43272	1.6304	1.388	2.7083	.55045	.2857
%RSD	7.9039	35.453	161.52	192.67	37.79	182.57	102.80	11.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 6:20:19 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.08063	-2.9693	-.18233	.65043	.69425
Stddev	1.0009	1.0450	.10735	5.0345	.73583
%RSD	1241.3	35.196	58.878	774.02	105.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8295.6	4885.0	63123.	8829.1
Stddev	14.2	9.8	73.	51.0
%RSD	.17084	.20061	.11625	.57719

Sample Name: 240-82060-d-13-a Acquired: 7/13/2017 6:24:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13883	463.86	1.6822	280.74	68.463	.17450	146380.
Stddev	.15112	11.23	1.9869	1.62	.428	.02845	879.
%RSD	108.85	2.4218	118.12	.57531	.62545	16.301	.60019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0681	.83147	2.0834	.94041	513.36	4925.8	11.905
Stddev	.1381	.17115	.0305	.29521	5.37	58.1	1.277
%RSD	202.8	20.584	1.4635	31.391	1.0463	1.1795	10.730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28250.	114.99	1.2673	26156.	2.9246	3.3053	1.582
Stddev	371.	.72	.2236	157.	.4433	1.1001	1.263
%RSD	1.3135	.62983	17.647	.60203	15.158	33.284	79.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-13-a Acquired: 7/13/2017 6:24:43 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.1066	.86312	15.687	1.1217	-1.1300	.50694	6810.3
Stddev	.8019	.55391	.442	1.2530	.5517	.08187	79.2
%RSD	11.284	64.175	2.8180	111.71	48.824	16.150	1.1634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1305.3
Stddev	12.0
%RSD	.92312
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7345.8	4576.2	59674.	8782.7
Stddev	19.9	16.3	266.	46.1
%RSD	.27120	.35650	.44501	.52543
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.484%	92.724%	93.839%	94.885%
Range				

Sample Name: 240-82060-d-14-a Acquired: 7/13/2017 6:29:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.40925	29.748	9.4787	267.56	112.32	-.09587	63299.	-.0738
Stddev	.18728	19.902	1.1087	1.19	.68	.08960	159.	.0097
%RSD	45.762	66.901	11.697	.44376	.60758	93.455	.25064	13.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15016	.90735	.19456	36.789	1162.5	4.0303	25760.	26.234
Stddev	.20870	.21301	.75153	2.183	20.8	.5041	255.	.021
%RSD	138.98	23.476	386.27	5.9347	1.7914	12.507	.98801	.07892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.0120	44238.	2.2759	1.5411	1.583	-2.1151	-.05850	.40786
Stddev	.2027	167.	.4144	1.7445	.853	1.7181	.39830	.10770
%RSD	2.5297	.37674	18.210	113.20	53.91	81.230	680.81	26.405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-14-a Acquired: 7/13/2017 6:29:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	2.0180	-1.2738	-.11152	5663.7	1466.2
Stddev	.9429	2.2405	.17170	65.0	18.3
%RSD	46.726	175.89	153.97	1.1477	1.2495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7524.3	4677.0	60508.	8857.8
Stddev	13.0	8.2	153.	49.6
%RSD	.17284	.17468	.25248	.55972
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.610%	94.767%	95.150%	95.696%
Range				

Sample Name: 240-82060-d-15-a Acquired: 7/13/2017 6:33:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27084	1350.7	3.4572	305.56	96.773	.14402	162140.
Stddev	.13325	2.8	1.2907	1.88	.239	.05622	452.
%RSD	49.199	.20864	37.332	.61570	.24729	39.035	.27868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0919	3.7593	3.2161	7.1797	2431.0	4062.9	7.9463
Stddev	.0821	.1275	.2529	.8841	3.4	6.7	.8262
%RSD	89.34	3.3909	7.8626	12.313	.14037	.16545	10.397
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23784.	2193.2	1.4371	19109.	5.8334	5.3662	1.227
Stddev	125.	6.2	.1142	71.	.4296	1.8448	.821
%RSD	.52500	.28161	7.9443	.37283	7.3654	34.379	66.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-15-a Acquired: 7/13/2017 6:33:24 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.8544	.23808	40.351	-.64559	1.0137	8.2733	10773.
Stddev	2.3663	.89049	.494	1.2501	2.9772	.2058	69.
%RSD	82.898	374.02	1.2245	193.64	293.71	2.4874	.63980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1387.0
Stddev	7.8
%RSD	.56551
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7362.5	4653.3	60106.	8865.9
Stddev	28.1	17.4	164.	25.5
%RSD	.38175	.37439	.27249	.28773
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.684%	94.285%	94.518%	95.784%
Range				

Sample Name: 240-82060-d-16-a Acquired: 7/13/2017 6:37:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17610	24.765	1.2110	70.339	117.77	-.05729	72150.	-.0278
Stddev	.46452	20.854	2.4922	.550	.33	.11460	187.	.1328
%RSD	263.78	84.209	205.80	.78218	.28438	200.03	.25879	477.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16932	.87995	.32453	198.49	826.85	2.4928	18673.	24.859
Stddev	.14063	.02566	.24055	1.32	25.63	1.9468	122.	.216
%RSD	83.057	2.9165	74.122	.66341	3.0993	78.097	.65152	.87015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0713	11499.	.59031	1.1406	2.441	.95974	.03962	.54662
Stddev	.2112	4.	.25378	.9502	1.749	2.2066	.37068	.10754
%RSD	6.8764	.03662	42.992	83.307	71.65	229.91	935.63	19.674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-16-a Acquired: 7/13/2017 6:37:42 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.08331	-1.4573	-1.3198	6905.9	383.75
Stddev	.35222	.6294	.0691	93.1	5.04
%RSD	422.80	43.189	5.2343	1.3484	1.3141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7631.3	4674.3	60303.	8767.5
Stddev	7.7	8.8	330.	14.4
%RSD	.10059	.18866	.54646	.16410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.884%	94.712%	94.828%	94.721%
Range				

Sample Name: 240-82060-d-17-a Acquired: 7/13/2017 6:42:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.27749	20001.	170.44	165.02	214.63	.99411	177480.
Stddev	.23682	40.	1.83	1.37	.41	.11936	801.
%RSD	85.345	.20210	1.0716	.83080	.19098	12.006	.45138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.6253	10.588	32.103	52.789	78400.	8629.0	27.289
Stddev	.2788	.069	.097	.377	168.	56.1	1.224
%RSD	44.59	.65316	.30332	.71430	.21419	.65054	4.4838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	47487.	1128.7	39.634	16280.	32.250	42.190	2.284
Stddev	429.	5.0	.396	140.	.728	1.543	2.674
%RSD	.90316	.44335	.99877	.86150	2.2579	3.6570	117.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-17-a Acquired: 7/13/2017 6:42:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.67959	4.3026	514.93	-.37249	53.393	173.86	43381.
Stddev	2.3717	.2368	3.50	.97912	1.568	.77	132.
%RSD	348.99	5.5033	.68059	262.85	2.9360	.44040	.30511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	629.92
Stddev	2.96
%RSD	.46944
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7191.5	4689.8	60424.	8971.8
Stddev	10.6	5.1	108.	37.7
%RSD	.14678	.10819	.17854	.42041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.647%	95.025%	95.019%	96.928%
Range				

Sample Name: 240-82060-d-18-a Acquired: 7/13/2017 6:46:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22336	2576.4	6.8570	157.28	69.793	.17440	86971.	.1729
Stddev	.22133	22.1	3.3929	2.20	.270	.13263	230.	.0639
%RSD	99.087	.85737	49.481	1.3982	.38677	76.047	.26395	36.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8844	5.9543	28.120	8778.4	1204.2	-3.1485	18601.	1536.4
Stddev	.0664	.2901	.879	11.4	45.5	.4017	151.	7.4
%RSD	2.3015	4.8721	3.1256	.13032	3.7801	12.760	.81129	.48149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1462	6456.4	4.6338	291.53	3.212	1.2279	.87966	176.40
Stddev	.1451	34.5	.0842	1.97	.445	1.3100	.94189	.82
%RSD	12.663	.53455	1.8172	.67516	13.87	106.69	107.07	.46361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-d-18-a Acquired: 7/13/2017 6:46:20 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.23561	8.2070	23.861	10641.	643.45
Stddev	.47336	2.5230	.451	121.	6.38
%RSD	200.91	30.741	1.8916	1.1414	.99200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7607.8	4744.1	61010.	8903.3
Stddev	36.2	36.4	111.	22.2
%RSD	.47615	.76711	.18190	.24881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.605%	96.126%	95.940%	96.189%
Range				

Sample Name: 240-82060-d-19-a Acquired: 7/13/2017 6:50:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.33456	1666.0	3.4772	142.62	88.412	.05770	101550.
Stddev	.23982	26.3	2.6251	.42	1.133	.10814	696.
%RSD	71.682	1.5775	75.495	.29409	1.2809	187.43	.68524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1464	.93299	3.8048	5.6479	1738.3	2168.1	7.9621
Stddev	.0144	.19305	.2408	.6126	8.7	38.4	.3476
%RSD	9.804	20.691	6.3282	10.847	.49908	1.7730	4.3656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	29879.	65.102	23.004	17438.	5.3276	3.9792	2.390
Stddev	247.	.396	.397	123.	.4552	2.1276	2.661
%RSD	.82635	.60809	1.7240	.70518	8.5436	53.469	111.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-d-19-a Acquired: 7/13/2017 6:50:38 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.95673	.67381	33.063	-.07433	-.05965	11.903	8436.4
Stddev	1.5124	.22173	.602	.64455	.64075	.212	73.3
%RSD	158.08	32.908	1.8215	867.10	1074.2	1.7819	.86903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1072.4
Stddev	3.5
%RSD	.32500
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7487.7	4662.7	60233.	8873.5
Stddev	7.2	4.6	115.	38.3
%RSD	.09639	.09845	.19124	.43215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.174%	94.476%	94.718%	95.866%
Range				

Sample Name: 240-82060-e-11-a Acquired: 7/13/2017 6:54:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.02399	37.158	-.29262	468.14	36.901	-.04278	132130.
Stddev	.32022	15.004	2.7339	.40	.197	.12544	624.
%RSD	1334.8	40.379	934.26	.08595	.53371	293.25	.47201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0002	.54780	1.1246	.51461	25.348	673.74	.08618
Stddev	.0653	.21692	.0657	.90206	1.681	24.11	.83994
%RSD	34020.	39.598	5.8433	175.29	6.6305	3.5788	974.62
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28598.	24.602	.81879	27686.	2.4519	2.4071	1.795
Stddev	128.	.248	.12594	131.	.3291	1.3554	1.717
%RSD	.44625	1.0087	15.381	.47304	13.423	56.310	95.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-11-a Acquired: 7/13/2017 6:54:59 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.59091	.94906	.65763	-.47083	-2.9129	5.7112	5090.4
Stddev	2.9429	.21618	.44434	1.0095	2.0890	.3507	42.8
%RSD	498.04	22.778	67.566	214.41	71.715	6.1410	.84080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	666.28
Stddev	11.30
%RSD	1.6954
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7411.1	4610.2	59692.	8736.0
Stddev	9.3	6.7	189.	13.4
%RSD	.12538	.14433	.31675	.15312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.262%	93.412%	93.867%	94.381%
Range				

Sample Name: 240-82060-e-12-a Acquired: 7/13/2017 6:59:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.00888	26.076	1.3579	174.74	51.240	-.00043	119160.
Stddev	.13494	13.314	2.1175	2.48	.320	.24950	457.
%RSD	1519.5	51.057	155.94	1.4172	.62361	58326.	.38318
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1000	.26552	1.7209	.35225	2.7607	3673.6	5.1714
Stddev	.1525	.37856	.2873	.05765	1.2199	30.4	1.0288
%RSD	152.6	142.57	16.697	16.366	44.189	.82650	19.895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19598.	4.7261	.57430	10200.	1.9553	2.5061	3.159
Stddev	210.	.0868	.06317	70.	.5552	.8234	1.217
%RSD	1.0737	1.8377	10.999	.68815	28.393	32.854	38.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-12-a Acquired: 7/13/2017 6:59:17 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11.518	-.53778	-.31265	1.4372	-2.7674	-.09103	4968.2
Stddev	2.570	.44630	.17439	1.1768	3.0184	.10209	59.9
%RSD	22.317	82.990	55.777	81.886	109.07	112.15	1.2057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	4648.6
Stddev	55.9
%RSD	1.2021
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7485.2	4613.2	59717.	8712.9
Stddev	31.7	26.5	153.	18.4
%RSD	.42323	.57377	.25578	.21071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.145%	93.473%	93.907%	94.131%
Range				

Sample Name: 240-82060-e-13-a Acquired: 7/13/2017 7:03:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.31145	29.610	1.5145	274.49	65.624	-.00201	144880.
Stddev	.15802	11.929	.7591	1.90	.360	.19533	823.
%RSD	50.738	40.287	50.122	.69222	.54819	9695.8	.56824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0145	.09406	1.0866	-.03059	5.7090	4686.1	10.917
Stddev	.0500	.32885	.2435	.12168	1.3681	7.7	1.540
%RSD	343.8	349.62	22.407	397.78	23.963	.16511	14.106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27765.	37.405	.44316	25991.	2.0335	1.8248	2.643
Stddev	87.	.404	.16547	122.	.2933	.1672	2.471
%RSD	.31245	1.0806	37.338	.46889	14.424	9.1603	93.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-13-a Acquired: 7/13/2017 7:03:39 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.6383	.30442	-.05959	.32030	-1.3802	-.24199	6012.5
Stddev	1.9048	.54776	.03658	.15508	.0634	.10624	13.0
%RSD	22.050	179.93	61.396	48.418	4.5903	43.902	.21613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1298.3
Stddev	5.4
%RSD	.41299
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7330.2	4572.2	59178.	8719.4
Stddev	3.5	1.6	242.	24.2
%RSD	.04719	.03470	.40963	.27703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.299%	92.643%	93.060%	94.201%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 7:07:59 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1011.5	24192.	510.06	5046.4	1999.8	1958.6	48814.	503.8
Stddev	3.7	10.	1.75	20.0	2.8	6.3	51.	2.3
%RSD	.36537	.04003	.34291	.39606	.14213	.32125	.10479	.4653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2014.8	1980.7	2002.1	23887.	49818.	4881.4	47669.	2007.9
Stddev	9.8	7.5	4.4	42.	137.	19.3	131.	11.3
%RSD	.48408	.38054	.21921	.17564	.27442	.39621	.27553	.56061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1928.2	50323.	2015.7	488.31	511.7	505.25	5090.6	4977.2
Stddev	10.2	189.	9.7	3.50	.9	6.01	28.6	35.2
%RSD	.53147	.37539	.48194	.71628	.1820	1.1899	.56189	.70758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 7:07:59 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	997.40	1901.4	2035.7	4811.2	4826.3
Stddev	9.49	5.1	9.5	42.5	12.8
%RSD	.95145	.26569	.46506	.88435	.26541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7141.0	4623.4	58881.	8636.8
Stddev	14.7	4.9	263.	20.3
%RSD	.20625	.10524	.44721	.23455

Sample Name: CCB Acquired: 7/13/2017 7:12:03 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.15867	7.6869	-.65975	8.9599	-.11516	.20634	-.90676	-.0445
Stddev	.15596	17.865	.92326	1.0931	.30689	.34931	9.0038	.0737
%RSD	98.295	232.41	139.94	12.200	266.48	169.29	992.96	165.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.12566	.42626	.74290	4.0651	-199.96	-6.7194	-17.837	.14021
Stddev	.16364	.05416	.67787	2.6487	28.92	.4893	.624	.06109
%RSD	130.23	12.706	91.248	65.156	14.463	7.2821	3.4963	43.571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.8708	18.728	.76010	.87211	1.911	-.42225	.44307	2.1292
Stddev	.2478	1.849	.10992	1.0223	2.263	.89176	.52821	.1630
%RSD	8.6325	9.8732	14.462	117.22	118.4	211.19	119.22	7.6565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 7:12:03 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.44506	-1.2155	-.15522	-3.8726	-3.8082
Stddev	1.3727	.1853	.05039	8.9539	4.4832
%RSD	308.43	15.241	32.465	231.21	117.72
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8256.2	4846.7	62878.	8784.5
Stddev	17.7	15.4	266.	83.0
%RSD	.21421	.31740	.42323	.94447

Sample Name: 240-82060-e-14-a Acquired: 7/13/2017 7:16:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09802	32.670	11.140	276.69	116.90	.03789	65585.	-.0366
Stddev	.31859	3.681	1.768	2.08	.58	.02794	288.	.1085
%RSD	325.04	11.268	15.867	.75216	.49922	73.720	.43962	296.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.27454	1.0727	.32734	39.540	1218.2	4.5093	27460.	25.192
Stddev	.05738	.2718	.65222	3.315	25.5	.6909	196.	.254
%RSD	20.899	25.334	199.25	8.3850	2.0963	15.321	.71226	1.0082
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.3007	46466.	1.7160	1.2497	.3530	-.35148	.00437	1.0298
Stddev	.1701	142.	.5540	.8058	2.968	1.0678	.70428	.1672
%RSD	2.0490	.30560	32.285	64.481	840.7	303.80	16105.	16.233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-14-a Acquired: 7/13/2017 7:16:29 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.02904	-2.0782	-.40965	5909.6	1553.5
Stddev	1.1605	1.6216	.13723	67.4	13.9
%RSD	3996.4	78.030	33.499	1.1399	.89436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7452.4	4627.9	59897.	8736.8
Stddev	22.7	13.6	195.	26.2
%RSD	.30446	.29406	.32605	.29934
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.754%	93.771%	94.190%	94.390%
Range				

Sample Name: 240-82060-e-15-a Acquired: 7/13/2017 7:20:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.50142	140.52	1.7938	304.62	76.934	.00609	148590.
Stddev	.25660	21.70	2.1428	2.77	.388	.11933	1144.
%RSD	51.174	15.441	119.45	.90966	.50418	1959.3	.76979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0294	1.8239	1.2912	-.28790	276.16	3799.2	7.0834
Stddev	.1289	.3397	.1632	.30642	6.30	10.3	.8260
%RSD	438.6	18.627	12.641	106.43	2.2820	.27141	11.662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2175
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22930.	1676.7	1.5413	20091.	3.9057	3.4611	2.517
Stddev	229.	12.2	.4303	108.	.4244	1.4358	1.542
%RSD	.99908	.72893	27.921	.53775	10.865	41.484	61.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 240-82060-e-15-a Acquired: 7/13/2017 7:20:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Ti3372	Tl1908	V_2908	Zn2062	Si2516
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(In2306)	(Y_3710)	(In2306)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.3906	.31036	4.3572	.95395	-1.1367	-.89257	8714.6
Stddev	1.6051	.81962	.1960	.91013	3.1972	.22854	142.1
%RSD	115.42	264.08	4.4983	95.407	281.28	25.605	1.6306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Sr3464
IS Ref	(Y_3710)
Units	ppb
Avg	1388.5
Stddev	14.3
%RSD	1.0289
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7390.1	4620.0	59877.	8802.7
Stddev	15.7	11.0	320.	66.4
%RSD	.21241	.23851	.53439	.75386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.012%	93.611%	94.158%	95.101%
Range				

Sample Name: 240-82060-e-16-a Acquired: 7/13/2017 7:25:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06999	2.6413	2.9251	68.241	113.76	.07308	69737.	-.0710
Stddev	.16348	25.119	2.7654	.764	.98	.03983	498.	.0163
%RSD	233.59	950.99	94.538	1.1195	.86126	54.501	.71344	22.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21530	.83778	.30934	120.95	788.35	.01060	18242.	22.396
Stddev	.22596	.02511	.18296	.21	14.23	.74354	259.	.141
%RSD	104.95	2.9973	59.146	.17366	1.8054	7014.0	1.4179	.62897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0239	11126.	.53949	1.2796	.1642	1.9223	-.01998	.19460
Stddev	.2425	102.	.38167	.1936	.6607	1.6871	.23807	.36540
%RSD	8.0201	.91578	70.746	15.127	402.3	87.765	1191.6	187.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-16-a Acquired: 7/13/2017 7:25:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.30894	-2.3965	-1.3722	6706.5	361.43
Stddev	1.0084	3.7921	.1257	100.6	.93
%RSD	326.39	158.23	9.1566	1.5004	.25859
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7753.4	4718.8	61264.	8898.5
Stddev	36.9	31.1	103.	22.2
%RSD	.47587	.65828	.16750	.24983
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.339%	95.613%	96.339%	96.137%
Range				

Sample Name: 240-82060-e-17-a Acquired: 7/13/2017 7:29:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.01571	47.320	10.234	134.54	49.484	.11062	58748.	-.0280
Stddev	.14966	17.441	1.312	.49	.071	.01898	75.	.1328
%RSD	952.75	36.858	12.823	.36593	.14338	17.161	.12714	474.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.07590	.99341	4.3644	753.11	3005.8	-3.5767	6616.3	167.78
Stddev	.27682	.31309	.4554	6.08	20.3	.5312	40.2	.65
%RSD	364.71	31.517	10.434	.80692	.67432	14.851	.60714	.38969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	31.842	15505.	1.1847	2.6407	-.0760	1.9083	.10089	1.0382
Stddev	1.003	26.	.3027	.2070	1.012	3.1921	.07148	.1289
%RSD	3.1489	.16548	25.550	7.8392	1332.	167.28	70.855	12.419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-17-a Acquired: 7/13/2017 7:29:26 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.24893	-1.5283	2.7227	6638.8	494.58
Stddev	.39636	2.9599	.2378	62.1	4.19
%RSD	159.23	193.68	8.7338	.93536	.84619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7798.7	4739.8	61347.	8880.9
Stddev	17.3	9.6	31.	12.9
%RSD	.22156	.20339	.05058	.14513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.878%	96.039%	96.471%	95.947%
Range				

Sample Name: 240-82060-e-18-a Acquired: 7/13/2017 7:33:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.28611	25.446	12.171	170.11	64.154	.12477	81276.	.0275
Stddev	.28612	15.444	1.819	.64	.431	.06355	683.	.0890
%RSD	100.00	60.691	14.944	.37526	.67209	50.932	.84071	323.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9292	1.2621	-.61429	3238.4	891.95	-4.1111	16358.	1425.5
Stddev	.0692	.0225	.79863	21.5	37.52	2.7828	101.	13.6
%RSD	3.5852	1.7801	130.01	.66270	4.2068	67.691	.61632	.95401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.3278	6497.9	3.0959	2.3485	3.579	.55242	-.19715	.85417
Stddev	.0454	53.6	.1454	.4211	.533	2.4729	.13567	.18317
%RSD	.61932	.82535	4.6971	17.932	14.90	447.64	68.815	21.444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-18-a Acquired: 7/13/2017 7:33:47 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.67550	-.90120	-.67751	6875.1	623.88
Stddev	.02030	3.2305	.06380	5.6	1.56
%RSD	3.0047	358.46	9.4163	.08216	.25062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7676.9	4706.3	60991.	8861.7
Stddev	25.2	10.1	362.	30.4
%RSD	.32864	.21501	.59297	.34251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.428%	95.359%	95.911%	95.739%
Range				

Sample Name: 240-82060-e-19-a Acquired: 7/13/2017 7:38:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31490	730.75	2.0536	137.82	81.200	-.02166	94861.	-.0092
Stddev	.62702	5.40	.8826	.77	.758	.08625	1083.	.1569
%RSD	199.11	.73940	42.980	.55749	.93322	398.19	1.1418	1698.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.64306	2.2906	6.5576	773.21	1796.5	2.6249	28793.	48.403
Stddev	.38293	.2939	.6372	12.34	16.6	.3312	242.	.130
%RSD	59.549	12.833	9.7164	1.5964	.92547	12.617	.84075	.26775
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	22.022	16950.	3.9951	2.6242	2.676	-1.3056	.80726	14.703
Stddev	.426	183.	.7104	.4461	.569	2.4370	.58121	.172
%RSD	1.9337	1.0774	17.782	16.999	21.28	186.66	71.998	1.1719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-82060-e-19-a Acquired: 7/13/2017 7:38:06 Type: Unk
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.45585	-2.7094	12.332	6725.6	1059.5
Stddev	1.0286	2.1017	.093	78.4	9.8
%RSD	225.64	77.572	.75220	1.1655	.92535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7559.6	4673.0	60349.	8812.2
Stddev	13.1	6.1	82.	62.8
%RSD	.17295	.13105	.13652	.71264
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.030%	94.685%	94.901%	95.204%
Range				

Sample Name: CCV-3141968 Acquired: 7/13/2017 7:42:26 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1004.2	24359.	508.64	5061.5	1999.2	1951.2	48824.	505.4
Stddev	5.2	73.	4.06	21.2	3.5	2.5	39.	2.6
%RSD	.51429	.30146	.79875	.41793	.17273	.12928	.07919	.5052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2021.2	1976.7	1983.3	23913.	50012.	4934.4	48298.	2001.8
Stddev	11.6	13.6	10.4	46.	122.	14.0	120.	2.5
%RSD	.57324	.68681	.52446	.19314	.24463	.28333	.24909	.12594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1938.6	50606.	2021.3	488.85	515.0	509.91	5100.1	4983.0
Stddev	15.8	12.	13.7	2.95	6.3	.07	40.7	23.6
%RSD	.81685	.02394	.67819	.60324	1.216	.01323	.79722	.47287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-3141968 Acquired: 7/13/2017 7:42:26 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	1002.0	1913.9	2041.9	4812.4	4863.3
Stddev	2.9	6.4	14.6	41.2	12.0
%RSD	.28548	.33577	.71654	.85580	.24648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7091.0	4591.0	58781.	8588.7
Stddev	10.8	4.7	143.	3.1
%RSD	.15252	.10156	.24301	.03617

Sample Name: CCB Acquired: 7/13/2017 7:46:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.03997	8.4856	-.01784	8.2541	-.26952	.05165	-16.352	-.1917
Stddev	.12624	13.628	1.7492	.5776	.06686	.04603	3.184	.0612
%RSD	315.83	160.61	9806.4	6.9978	24.808	89.115	19.473	31.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.03227	.31456	.25203	.52707	-199.02	-6.4370	-14.483	-.10675
Stddev	.23432	.17570	.77915	4.0206	14.00	1.4807	23.387	.07672
%RSD	726.12	55.855	309.15	762.83	7.0367	23.003	161.47	71.866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.0329	12.006	.05613	.72169	.8254	1.1401	.27287	1.8934
Stddev	.2642	6.159	.21142	3.4722	1.592	1.4359	.66328	.3314
%RSD	8.7115	51.305	376.64	481.11	192.8	125.94	243.08	17.500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 7/13/2017 7:46:30 Type: QC
Method: ICP I9 6010 200.7 Methods(v255) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	-.31868	.72160	-.36669	5.3163	-5.6326
Stddev	.69629	1.9910	.08355	6.0843	5.1820
%RSD	218.49	275.92	22.786	114.45	91.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8316.4	4887.8	62984.	8794.3
Stddev	22.8	13.9	201.	24.6
%RSD	.27475	.28397	.31981	.28021

MT6500BLKH20 251

Test America Canton ICP Data Review Checklist

Analysis Date: 7-12-17 **Analyst:** Ku **Instrument:** I9

Review Items

A. Calibration/Instrument QC
1. Instrument calibrated per method.
2. ICV/CCV analyzed at appropriate frequency and within acceptance criteria. (*ICV (2nd source)*:200.7=95 – 105%, 6010B 90-110%) *(CCV: 90 – 110%)*
3. ICB/CCB analyzed at appropriate frequency and within acceptance criteria.
4. CRI analyzed at SOP or project-specific frequency and within acceptance criteria. (project specific limits may vary)
5. ICSA/ICSAB analyzed at required frequency and within acceptance criteria.
B. Sample Results
1. Samples with concentrations > the linear range for any parameter diluted and reanalyzed.
2. Internal standard(s) within acceptance criteria.
3. Sample analyses done within holding time.
C. Preparation/Matrix QC
1. LCS performed per prep batch and within acceptance criteria.
2. Method blank performed per prep batch and within acceptance criteria.
3. MS performed at required frequency and evaluated.
4. MSD or DU performed at required frequency and evaluated.
5. Serial dilution performed per prep batch.
6. Post digest spike performed at required frequency and evaluated.
D. Other
1. Are all nonconformances documented appropriately in lims system.
2. Calculations checked for error.
3. All client/project specific requirements met.
4. Date/time of analysis verified as correct.

Level I Analyst: Kayla L Curts **Date:** 7-12-17 **Time:** 8:19 - 13:09

Level I Analyst: Ryan K. Toth **Date:** 7-13-17 **Time:** 08:19 - 07:46

Level I Analyst: _____ **Date:** _____ **Time:** _____

Level II Reviewer: Ryan K. Toth **Date:** 7-12-17 **Time:** 08:19 - 13:09

Level II Reviewer: RKT 7-13-17 **Date:** _____ **Time:** _____

Level II Reviewer: [signature] **Date:** 7/14/17 **Time:** 08:19 - 07:46

Comments: _____

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
SEMW-9S-070617	240-81987-1
SEMW-9I-070617	240-81987-2

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-81987-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
SEMW-9S-070617	240-81987-1
SEMW-9I-070617	240-81987-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SEMW-9S-070617 Lab Sample ID: 240-81987-1

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:35

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	56	5.0	2.6	mg/L			1	2320B-1997
24959-67-9	Bromide	0.20	0.50	0.044	mg/L	J		1	300.0
14797-55-8	Nitrate as N	0.12	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	88	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	620	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SEMW-9I-070617 Lab Sample ID: 240-81987-2

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:40

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	15	5.0	2.6	mg/L			1	2320B-1997
24959-67-9	Bromide	0.24	0.50	0.044	mg/L	J		1	300.0
14797-55-8	Nitrate as N	0.18	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	8.2	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	170	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SEMW-9S-070617 Lab Sample ID: 240-81987-1

Lab Name: TestAmerica Pittsburgh Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:35

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SEMW-9I-070617 Lab Sample ID: 240-81987-2

Lab Name: TestAmerica Pittsburgh Job No.: 240-81987-1

SDG ID.:

Matrix: Water Date Sampled: 07/06/2017 12:40

Reporting Basis: WET Date Received: 07/07/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274398

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Bromide	10.4	10.0	104	90-110		WCICLCS_00603
			Sulfate	51.8	50.0	104	90-110		WCICLCS_00603
11	ICB	14:08	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274399

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Nitrate as N	2.56	2.50	103	90-110		WCICLCS_00603
11	ICB	14:08	Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Analyst: JWW Batch Start Date: 07/07/2017

Reporting Units: mg/L Analytical Batch No.: 286317

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:20	Nitrate as N	2.47	2.50	99	90-110		WCICCCV_00775
2	CCB	12:40	Nitrate as N	0.014				U	
13	CCV	16:39	Nitrate as N	2.48	2.50	99	90-110		WCICCCV_00775
14	CCB	16:59	Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Analyst: JWW Batch Start Date: 07/07/2017

Reporting Units: mg/L Analytical Batch No.: 286350

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:20	Bromide	10.0	10.0	100	90-110		WCICCCV_00775
			Sulfate	51.6	50.0	103	90-110		WCICCCV_00775
2	CCB	12:40	Bromide	0.044				U	
			Sulfate	0.35				U	
13	CCV	16:39	Bromide	10.1	10.0	101	90-110		WCICCCV_00775
			Sulfate	51.7	50.0	103	90-110		WCICCCV_00775
14	CCB	16:59	Bromide	0.044				U	
			Sulfate	0.35				U	
35	CCV	00:02	Bromide	10.1	10.0	101	90-110		WCICCCV_00775
			Sulfate	51.6	50.0	103	90-110		WCICCCV_00775
36	CCB	00:23	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 287816	Date: 07/18/2017 17:05						
2320B-1997	MB 240-287816/3	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 286317	Date: 07/07/2017 13:00						
300.0	MB 240-286317/3	Nitrite as N	0.014	U	mg/L	0.10	1
300.0	MB 240-286317/3	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 286350	Date: 07/07/2017 13:00						
300.0	MB 240-286350/3	Bromide	0.044	U	mg/L	0.50	1
300.0	MB 240-286350/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 286538	Date: 07/10/2017 13:21						
SM 2540C	MB 240-286538/1	Total Dissolved Solids	7.8	U	mg/L	10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-81987-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 217391 Date: 07/18/2017 11:24							
SM 2520B	MB 180-217391/1	Salinity	2.0	U	No Unit	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 286317 Date: 07/07/2017 14:00											
300.0	240-81959-B-1	Nitrite as N	0.099	J	mg/L						
300.0	240-81959-B-1 MS	Nitrite as N	2.69		mg/L	2.50	104	80-120			
300.0	240-81959-B-1	Nitrate as N	7.1		mg/L						
300.0	240-81959-B-1 MS	Nitrate as N	9.33		mg/L	2.50	91	80-120			
Batch ID: 286350 Date: 07/07/2017 23:22											
300.0	240-80789-F-4	Bromide	0.11	J	mg/L						
300.0	240-80789-F-4 MS	Bromide	10.3		mg/L	10.0	102	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 286317 Date: 07/07/2017 14:21											
300.0	240-81959-B-1 MSD	Nitrite as N	2.57		mg/L	2.50	99	80-120	5	15	
300.0	240-81959-B-1 MSD	Nitrate as N	9.24		mg/L	2.50	88	80-120	1	15	
Batch ID: 286350 Date: 07/07/2017 23:42											
300.0	240-80789-F-4 MSD	Bromide	10.7		mg/L	10.0	106	80-120	3	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 287816 Date: 07/18/2017 17:24								
2320B-1997	SEMW-9S-070617	240-81987-1	Alkalinity	56	mg/L			
2320B-1997	SEMW-9S-070617	240-81987-1 DU	Alkalinity	56.2	mg/L	0.2	20	
Batch ID: 286538 Date: 07/10/2017 13:21								
SM 2540C		240-82026-A-11	Total Dissolved Solids	7.8	mg/L			U
SM 2540C		240-82026-A-11 DU	Total Dissolved Solids	7.8	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-81987-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 217391 Date: 07/18/2017 11:24								
SM 2520B		180-68209-AP-1	Salinity	2.0	No Unit			U
SM 2520B		180-68209-AP-1 DU	Salinity	2.0	No Unit	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287816	Date: 07/18/2017 16:59										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-287816/2	Alkalinity	385		mg/L	377	102	86-123			
Batch ID: 286317	Date: 07/07/2017 13:20										
						LCS Source: WCICLCS_00613					
300.0	LCS 240-286317/4	Nitrite as N	2.47		mg/L	2.50	99	90-110			
300.0	LCS 240-286317/4	Nitrate as N	2.52		mg/L	2.50	101	90-110			
Batch ID: 286350	Date: 07/07/2017 13:20										
						LCS Source: WCICLCS_00613					
300.0	LCS 240-286350/4	Bromide	10.2		mg/L	10.0	102	90-110			
300.0	LCS 240-286350/4	Sulfate	52.1		mg/L	50.0	104	90-110			
Batch ID: 286538	Date: 07/10/2017 13:21										
						LCS Source: WCPHENOVSOLID_00022					
SM 2540C	LCS 240-286538/2	Total Dissolved Solids	262		mg/L	242	108	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-81987-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 07/18/2017 16:45 End Date: 07/18/2017 21:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			16:45																									
LCS 240-287816/2	1	T	16:59	X																								
MB 240-287816/3	1	T	17:05	X																								
ZZZZZZ			17:09																									
240-81987-1	1	T	17:17	X																								
240-81987-1 DU	1	T	17:24	X																								
240-81987-2	1	T	17:31	X																								
ZZZZZZ			17:41																									
ZZZZZZ			17:51																									
ZZZZZZ			18:05																									
ZZZZZZ			18:19																									
ZZZZZZ			18:32																									
ZZZZZZ			18:45																									
ZZZZZZ			18:59																									
ZZZZZZ			19:03																									
ZZZZZZ			19:12																									
ZZZZZZ			19:22																									
ZZZZZZ			19:31																									
ZZZZZZ			19:42																									
ZZZZZZ			19:54																									
ZZZZZZ			20:12																									
ZZZZZZ			20:24																									
ZZZZZZ			20:41																									
ZZZZZZ			20:47																									
ZZZZZZ			20:53																									
ZZZZZZ			20:57																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:27																									
ZZZZZZ			21:31																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Br	SO4																							
STD1 240-274398/1 IC	1		10:47	X	X																							
STD2 240-274398/2 IC	1		11:07	X	X																							
STD3 240-274398/3 IC	1		11:27	X	X																							
STD4 240-274398/4 IC	1		11:48	X	X																							
STD5 240-274398/5 ICRT	1		12:08	X	X																							
STD6 240-274398/6 IC	1		12:28	X	X																							
STD7 240-274398/7 IC	1		12:48	X	X																							
STD8 240-274398/8 IC	1		13:08	X	X																							
STD9 240-274398/9 IC	1		13:28	X	X																							
ICV 240-274398/10	1		13:48	X	X																							
ICB 240-274398/11	1		14:08	X	X																							

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-274399/1 IC	1		10:47	X	X																								
STD2 240-274399/2 IC	1		11:07	X	X																								
STD3 240-274399/3 IC	1		11:27	X	X																								
STD4 240-274399/4 IC	1		11:48	X	X																								
STD5 240-274399/5 ICRT	1		12:08	X	X																								
STD6 240-274399/6 IC	1		12:28	X	X																								
STD7 240-274399/7 IC	1		12:48	X	X																								
STD8 240-274399/8 IC	1		13:08	X	X																								
STD9 240-274399/9 IC	1		13:28	X	X																								
ICV 240-274399/10	1		13:48	X	X																								
ICB 240-274399/11	1		14:08		X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 07/07/2017 12:20 End Date: 07/08/2017 00:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-286317/1	1		12:20	X	X																								
CCB 240-286317/2	1		12:40		X																								
MB 240-286317/3	1	T	13:00		X																								
LCS 240-286317/4	1	T	13:20	X	X																								
ZZZZZZ			13:40																										
240-81959-B-1 MS	1	T	14:00	X	X																								
240-81959-B-1 MSD	1	T	14:21	X	X																								
ZZZZZZ			14:41																										
240-81987-1	1	T	15:19		X																								
ZZZZZZ			15:39																										
240-81987-2	1	T	15:59		X																								
ZZZZZZ			16:19																										
CCV 240-286317/13	1		16:39	X	X																								
CCB 240-286317/14	1		16:59		X																								
ZZZZZZ			17:20																										
ZZZZZZ			17:40																										
ZZZZZZ			18:00																										
ZZZZZZ			18:20																										
ZZZZZZ			18:40																										
ZZZZZZ			19:00																										
ZZZZZZ			19:20																										
ZZZZZZ			19:40																										
CCV 240-286317/23			20:01																										
CCB 240-286317/24			20:21																										
ZZZZZZ			20:41																										
ZZZZZZ			21:01																										
ZZZZZZ			21:21																										
ZZZZZZ			21:42																										
ZZZZZZ			22:02																										
ZZZZZZ			22:22																										
RINSE 240-286317/31			22:42																										
CCV 240-286317/35			00:02																										
CCB 240-286317/36			00:23																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 07/07/2017 12:20 End Date: 07/08/2017 04:04

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
CCV 240-286350/1	1		12:20	X	X																								
CCB 240-286350/2	1		12:40	X	X																								
MB 240-286350/3	1	T	13:00	X	X																								
LCS 240-286350/4	1	T	13:20	X	X																								
ZZZZZZ			13:40																										
ZZZZZZ			14:00																										
ZZZZZZ			14:21																										
240-81987-1	1	T	15:19	X	X																								
ZZZZZZ			15:39																										
240-81987-2	1	T	15:59	X	X																								
CCV 240-286350/13	1		16:39	X	X																								
CCB 240-286350/14	1		16:59	X	X																								
ZZZZZZ			20:41																										
ZZZZZZ			21:01																										
ZZZZZZ			21:21																										
ZZZZZZ			21:42																										
ZZZZZZ			22:02																										
ZZZZZZ			22:22																										
RINSE 240-286350/31			22:42																										
ZZZZZZ			23:02																										
240-80789-F-4 MS	1	T	23:22	X																									
240-80789-F-4 MSD	1	T	23:42	X																									
CCV 240-286350/35	1		00:02	X	X																								
CCB 240-286350/36	1		00:23	X	X																								
ZZZZZZ			00:43																										
ZZZZZZ			01:03																										
ZZZZZZ			01:23																										
ZZZZZZ			01:43																										
ZZZZZZ			02:03																										
ZZZZZZ			02:23																										
ZZZZZZ			02:43																										
ZZZZZZ			03:03																										
ZZZZZZ			03:24																										
CCV 240-286350/46			03:44																										
CCB 240-286350/47			04:04																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/10/2017 13:21 End Date: 07/10/2017 13:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-286538/1	1	T	13:21	X																								
LCS 240-286538/2	1	T	13:21	X																								
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
240-82026-A-11 DU	1	T	13:21	X																								
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
ZZZZZZ			13:21																									
240-81987-1	1	T	13:21	X																								
240-81987-2	1	T	13:21	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-81987-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 07/18/2017 11:24 End Date: 07/18/2017 11:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
MB 180-217391/1	1	T	11:24	X																								
ZZZZZZ			11:24																									
180-68209-AP-1 DU	1	T	11:24	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
240-81987-1	1	T	11:24	X																								
240-81987-2	1	T	11:24	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 287816 Batch Start Date: 07/18/17 16:45 Batch Analyst: Larue, Charles

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00017		
LCS 240-287816/2		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-287816/3		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-81987-G-1	SEMW-9S-070617	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-81987-G-1 DU	SEMW-9S-070617	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-81987-J-2	SEMW-9I-070617	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-3115970
pH Buffer 2 ID	7-3072347
pH Buffer 3 ID	10-2951041
pH Buffer 4 ID	12-3072210
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
Probe ID	127
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 274398 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274398/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274398/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274398/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274398/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274398/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274398/6 IC		300.0		5 mL	2 mL				
STD7 240-274398/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274398/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274398/9 IC		300.0		5 mL	5 mL				
ICV 240-274398/10		300.0		5 mL		5 mL			
ICB 240-274398/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 274399 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274399/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274399/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274399/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274399/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274399/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274399/6 IC		300.0		5 mL	2 mL				
STD7 240-274399/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274399/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274399/9 IC		300.0		5 mL	5 mL				
ICV 240-274399/10		300.0		5 mL		5 mL			
ICB 240-274399/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 286317 Batch Start Date: 07/07/17 12:20 Batch Analyst: Weimer, Joshua W

Batch Method: 300.0 Batch End Date: 07/08/17 13:47

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00775	WCICLCS 00613	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-286317/1		300.0		5 mL	5 mL				
CCB 240-286317/2		300.0		5 mL					
MB 240-286317/3		300.0		5 mL					
LCS 240-286317/4		300.0		5 mL		5 mL			
240-81959-B-1 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-81959-B-1 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
240-81987-G-1	SEMW-9S-070617	300.0	T	5 mL					
240-81987-G-1	SEMW-9S-070617	300.0	T	5 mL					
240-81987-J-2	SEMW-9I-070617	300.0	T	5 mL					
CCV 240-286317/13		300.0		5 mL	5 mL				
CCB 240-286317/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 286350 Batch Start Date: 07/07/17 12:20 Batch Analyst: Weimer, Joshua W

Batch Method: 300.0 Batch End Date: 07/08/17 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00775	WCICLCS 00613	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-286350/1		300.0		5 mL	5 mL				
CCB 240-286350/2		300.0		5 mL					
MB 240-286350/3		300.0		5 mL					
LCS 240-286350/4		300.0		5 mL		5 mL			
240-81987-G-1	SEMW-9S-070617	300.0	T	5 mL					
240-81987-G-1	SEMW-9S-070617	300.0	T	5 mL					
240-81987-J-2	SEMW-9I-070617	300.0	T	5 mL					
CCV 240-286350/13		300.0		5 mL	5 mL				
CCB 240-286350/14		300.0		5 mL					
240-80789-F-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-80789-F-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-286350/35		300.0		5 mL	5 mL				
CCB 240-286350/36		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 286538 Batch Start Date: 07/10/17 13:21 Batch Analyst: Moser, Morgan

Batch Method: SM 2540C Batch End Date: 07/11/17 14:37

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-286538/1		SM 2540C			100 mL	3.8582 g	3.8585 g	3.8586 g	0 g
LCS 240-286538/2		SM 2540C			50 mL	3.8514 g	3.8646 g	3.8645 g	0 g
240-82026-A-11 DU		SM 2540C	T	70 umhos/cm	100 mL	3.8439 g	3.8448 g	3.8443 g	0 g
240-81987-D-1	SEMW-9S-070617	SM 2540C	T	1150 umhos/cm	100 mL	3.8622 g	3.9236 g	3.9240 g	0 g
240-81987-G-2	SEMW-9I-070617	SM 2540C	T	300 umhos/cm	100 mL	3.8785 g	3.8950 g	3.8955 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-286538/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0003 g	0.0004 g	N/A g
LCS 240-286538/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0132 g	0.0131 g	N/A g
240-82026-A-11 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0009 g	0.0004 g	N/A g
240-81987-D-1	SEMW-9S-070617	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0614 g	0.0618 g	N/A g
240-81987-G-2	SEMW-9I-070617	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0165 g	0.017 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022		
MB 240-286538/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-286538/2		SM 2540C		N/A g	100 mL	OK	50 mL		
240-82026-A-11 DU		SM 2540C	T	N/A g	100 mL	OK			
240-81987-D-1	SEMW-9S-070617	SM 2540C	T	N/A g	100 mL	OK			
240-81987-G-2	SEMW-9I-070617	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-81987-1

SDG No.:

Batch Number: 286538 Batch Start Date: 07/10/17 13:21 Batch Analyst: Moser, Morgan

Batch Method: SM 2540C Batch End Date: 07/11/17 14:37

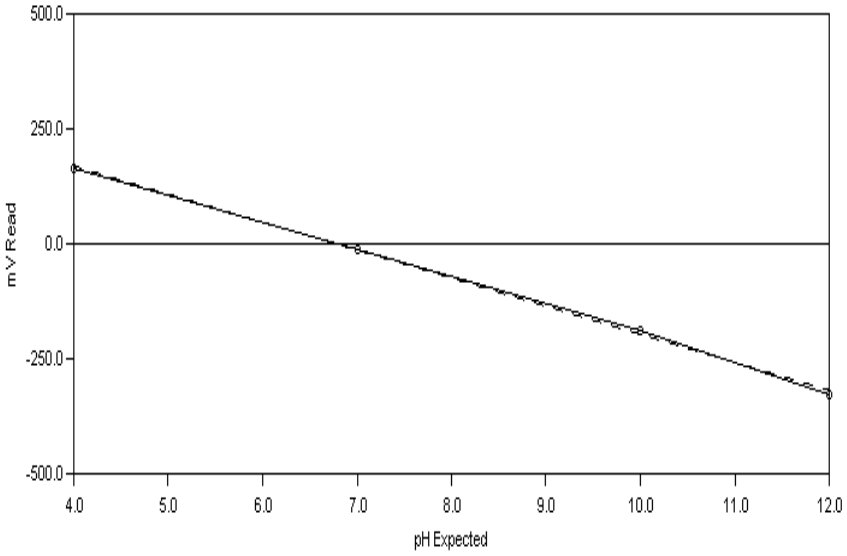
Batch Notes	
Balance ID	BO48
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	7/11/7 12:54
Constant Weight (WT2) Date/Time Out	7/11/17 14:01
Constant Weight (WT2) Temp In	181 Degrees C
Constant Weight (WT2) Temp Out	181 Degrees C
Corrected Temperature in Oven	104 Degrees C
Corrected Temperature out of Oven	105 Degrees C
Date/Time Samples placed in Oven	7/10/17 14:18
Date/Time Samples Removed from Oven	7/11/17 7:20
Filter Paper ID	3069257
Nominal Amount Used	100 mL
Oven ID	006/001
Weight(WT1) Start Date/Time	7/11/17 7:20
Weight(WT1) Date/Time Out	7/11/17 10:100
Weight(WT1) Start Temp	182 Degrees C
Weight(WT1) Temp Out	182 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PC-TitratION PLUS
Calibration Report

Calibration Record # 2373



Calibration Settings

Calibration ID	PH	Date	7/18/2017
Channel	1	Time	4:41 PM
Probe Type	pH	Temperature	295.89 K 22.74 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-61.035	CorrCoeff	0.9995
Intercept	-14.616	Equation:	Y = (-61.035) X + (-14.616)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-61.035	-65.00	-53.00
Intercept	-14.616	-100.00	100.00
Correlation Coefficient	0.9995	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	164.79
	7.00	-11.96
	10.00	-189.57
	12.00	-326.90

Copyright Hinterland Software Ltd.

Report Date: 7/19/2017 : 9:33 AM

TestAmerica

Instrument ID: Steve

2320B, 4500F-C

Analyst _____

LCS _____

Date _____

Sample Name	Run Date	Run Time	Conductivity	pH	P-Alk	Total Alk	BiCarbonate	Carbonate	Hydroxide	Fluoride	Acid
PH 7	7/18/2017	4:45 PM	-1.00	6.93	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
LCS	7/18/2017	4:59 PM	-1.00	8.66	15.10	384.79	354.60	30.19	.00	-1.0000	-1.00
MB	7/18/2017	5:05 PM	-1.00	6.04	.00	.65	.65	.00	.00	-1.0000	-1.00
PH 7-1	7/18/2017	5:09 PM	-1.00	7.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
240-81987-G-1	7/18/2017	5:17 PM	-1.00	6.70	.00	56.10	56.10	.00	.00	-1.0000	-1.00
du	7/18/2017	5:24 PM	-1.00	6.74	.00	56.24	56.24	.00	.00	-1.0000	-1.00
240-81987-J-2	7/18/2017	5:31 PM	-1.00	6.11	.00	15.18	15.18	.00	.00	-1.0000	-1.00
240-82072-F-2	7/18/2017	5:41 PM	-1.00	9.61	22.12	90.90	46.67	44.23	.00	-1.0000	-1.00
240-82072-F-3	7/18/2017	5:51 PM	-1.00	9.61	22.50	90.43	45.42	45.01	.00	-1.0000	-1.00
240-82072-F-4	7/18/2017	6:05 PM	-1.00	8.20	.00	342.83	342.83	.00	.00	-1.0000	-1.00
240-82072-F-5	7/18/2017	6:19 PM	-1.00	7.97	.00	455.03	455.03	.00	.00	-1.0000	-1.00
240-82072-F-6	7/18/2017	6:32 PM	-1.00	7.98	.00	292.78	292.78	.00	.00	-1.0000	-1.00
240-82072-G-10	7/18/2017	6:45 PM	-1.00	8.26	.00	379.08	379.08	.00	.00	-1.0000	-1.00
240-82072-F-11	7/18/2017	6:59 PM	-1.00	8.00	.00	411.26	411.26	.00	.00	-1.0000	-1.00
PH 7-2	7/18/2017	7:03 PM	-1.00	7.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
240-82072-F-16	7/18/2017	7:12 PM	-1.00	8.00	.00	151.97	151.97	.00	.00	-1.0000	-1.00
du	7/18/2017	7:22 PM	-1.00	8.07	.00	151.79	151.79	.00	.00	-1.0000	-1.00
240-82072-F-17	7/18/2017	7:31 PM	-1.00	8.17	.00	138.28	138.28	.00	.00	-1.0000	-1.00
240-82072-G-18	7/18/2017	7:42 PM	-1.00	7.72	.00	240.26	240.26	.00	.00	-1.0000	-1.00
240-82072-G-19	7/18/2017	7:54 PM	-1.00	7.50	.00	340.87	340.87	.00	.00	-1.0000	-1.00
240-82072-G-20	7/18/2017	8:12 PM	-1.00	7.59	.00	565.58	565.58	.00	.00	-1.0000	-1.00
240-82072-F-21	7/18/2017	8:24 PM	-1.00	8.22	.00	314.52	314.52	.00	.00	-1.0000	-1.00

Page 2201 of 2328

PC-TitratION PLUS by Man-Tech Associates, Inc.

Copyright Hinterland Software Ltd.

Analyst _____

LCS _____

Date _____

Sample Name	Run Date	Run Time	Conductivity	pH	P-Alk	Total Alk	BiCarbonate	Carbonate	Hydroxide	Fluoride	Acid
240-82072-F-23	7/18/2017	8:41 PM	-1.00	7.36	.00	530.48	530.48	.00	.00	-1.0000	-1.00
240-82290-H-1	7/18/2017	8:47 PM	-1.00	5.66	.00	4.94	4.94	.00	.00	-1.0000	-1.00
240-82390-D-1	7/18/2017	8:53 PM	-1.00	5.21	.00	1.47	1.47	.00	.00	-1.0000	-1.00
PH 7-3	7/18/2017	8:57 PM	-1.00	7.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
240-82390-H-2	7/18/2017	9:03 PM	-1.00	5.17	.00	1.12	1.12	.00	.00	-1.0000	-1.00
du	7/18/2017	9:08 PM	-1.00	5.17	.00	1.00	1.00	.00	.00	-1.0000	-1.00
240-82163-J-1	7/18/2017	9:27 PM	-1.00	8.04	.00	641.65	641.65	.00	.00	-1.0000	-1.00
PH 7-4	7/18/2017	9:31 PM	-1.00	6.96	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00

PC-TitratION PLUS by Man-Tech Associates, Inc.

Copyright Hinterland Software Ltd.

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-001_02_ECD_1.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Apr-2017 10:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-001
Misc. Info.: std1
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:26:53

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.963	3.977	-0.014	906068	0.0500	0.0364	M
2	Chloride	6.387	6.380	0.007	16710120	1.00	1.02	
3	Nitrite as N	7.997	7.997	0.000	1802408	0.0500	0.0473	
4	Bromide	10.177	10.157	0.020	1221935	0.2000	0.1759	
5	Nitrate as N	11.790	11.743	0.047	1931609	0.0500	0.0488	
6	Sulfate	14.667	14.350	0.317	9613778	1.00	0.8254	
S 7	Nitrate Nitrite as N						0.0961	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

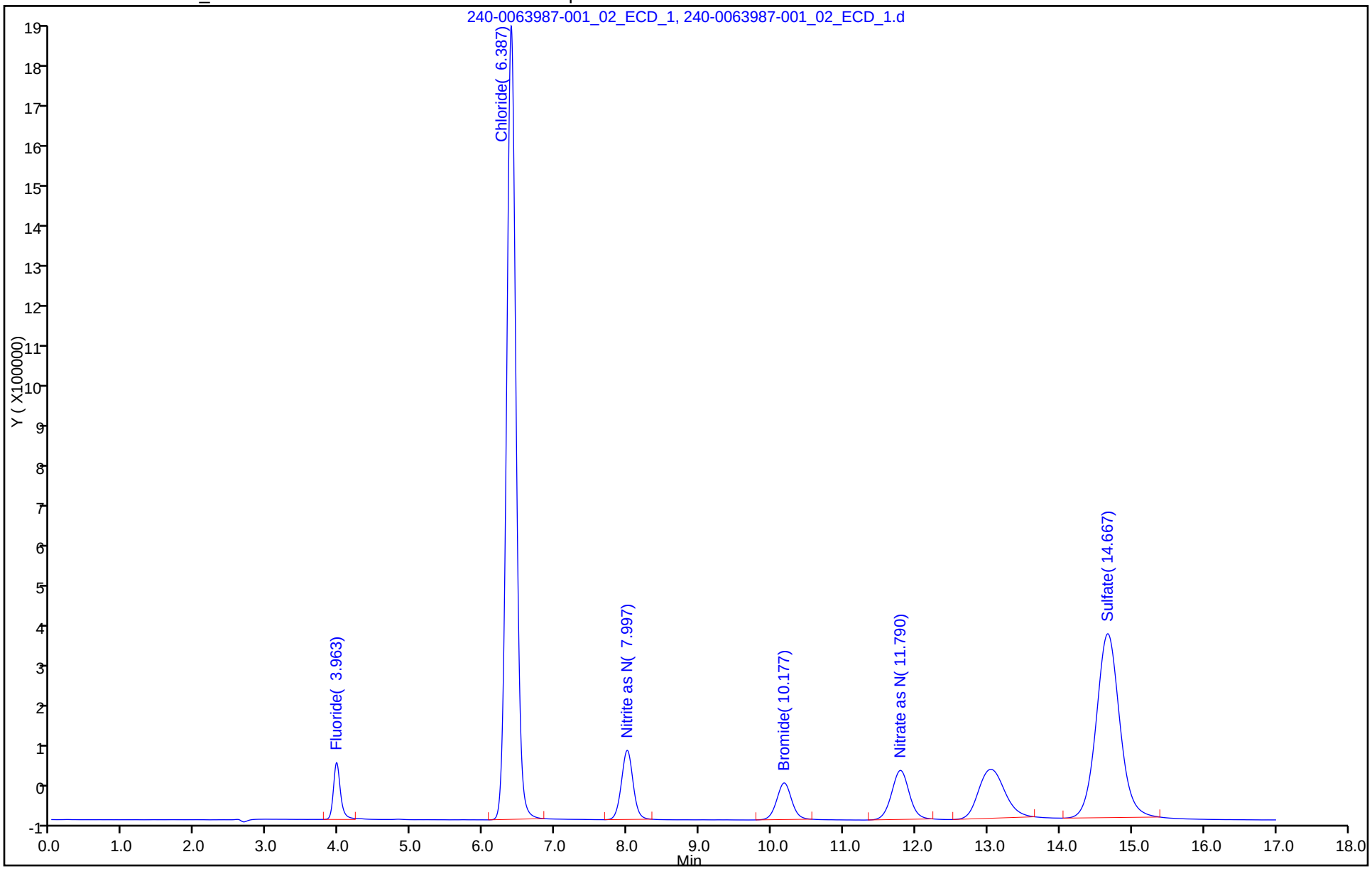
WCICCALSOLN_00282 Amount Added: 0.03 Units: mL

Report Date: 12-Apr-2017 14:42:50 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-001_02_ECD_1.d

Injection Date:	12-Apr-2017 10:47:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

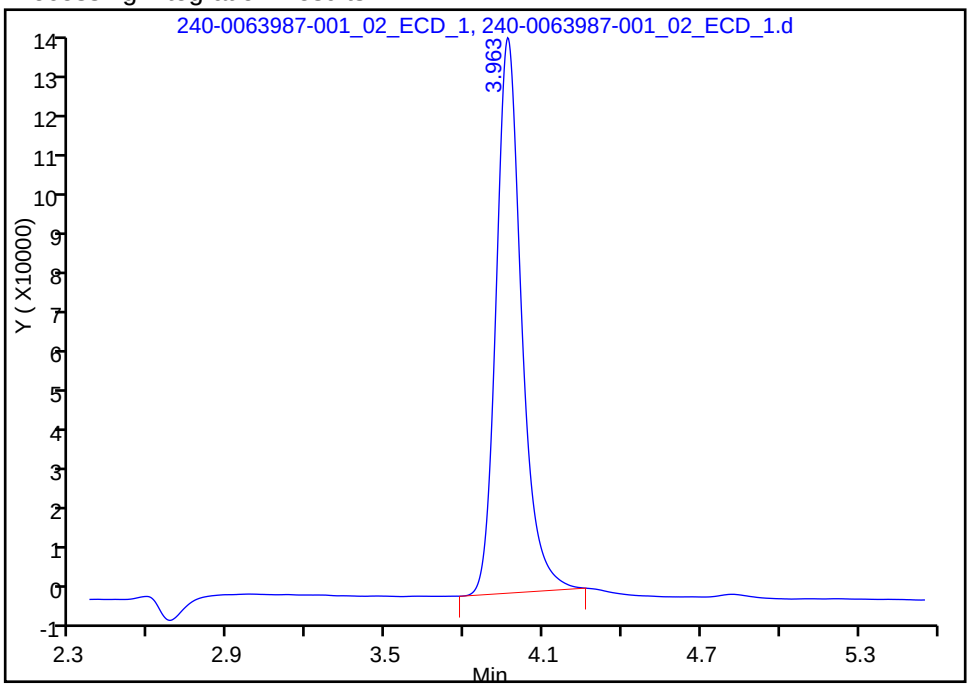
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-001_02_ECD_1.d
Injection Date: 12-Apr-2017 10:47:00 Instrument ID: VERONICA
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

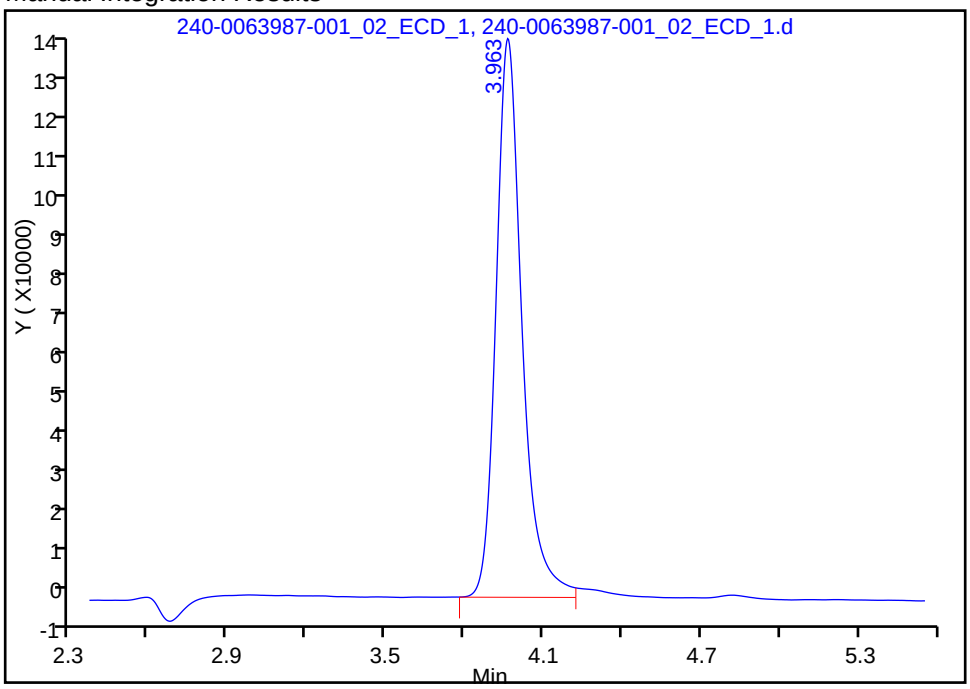
Processing Integration Results

RT: 3.96
Area: 882128
Amount: 0.035525
Amount Units: ug/ml



Manual Integration Results

RT: 3.96
Area: 906068
Amount: 0.036411
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:26:48
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-001_02_ECD_1.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Apr-2017 10:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-001
Misc. Info.: std1
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:26:53

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.963	3.977	-0.014	906068	NC	NC	M
2	Chloride	6.387	6.380	0.007	16710120	NC	NC	
3	Nitrite as N	7.997	7.997	0.000	1802408	0.0500	0.0473	
4	Bromide	10.177	10.157	0.020	1221935	NC	NC	
5	Nitrate as N	11.790	11.743	0.047	1931609	0.0500	0.0488	
6	Sulfate	14.667	14.350	0.317	9613778	NC	NC	
S 7	Nitrate Nitrite as N						0.0961	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

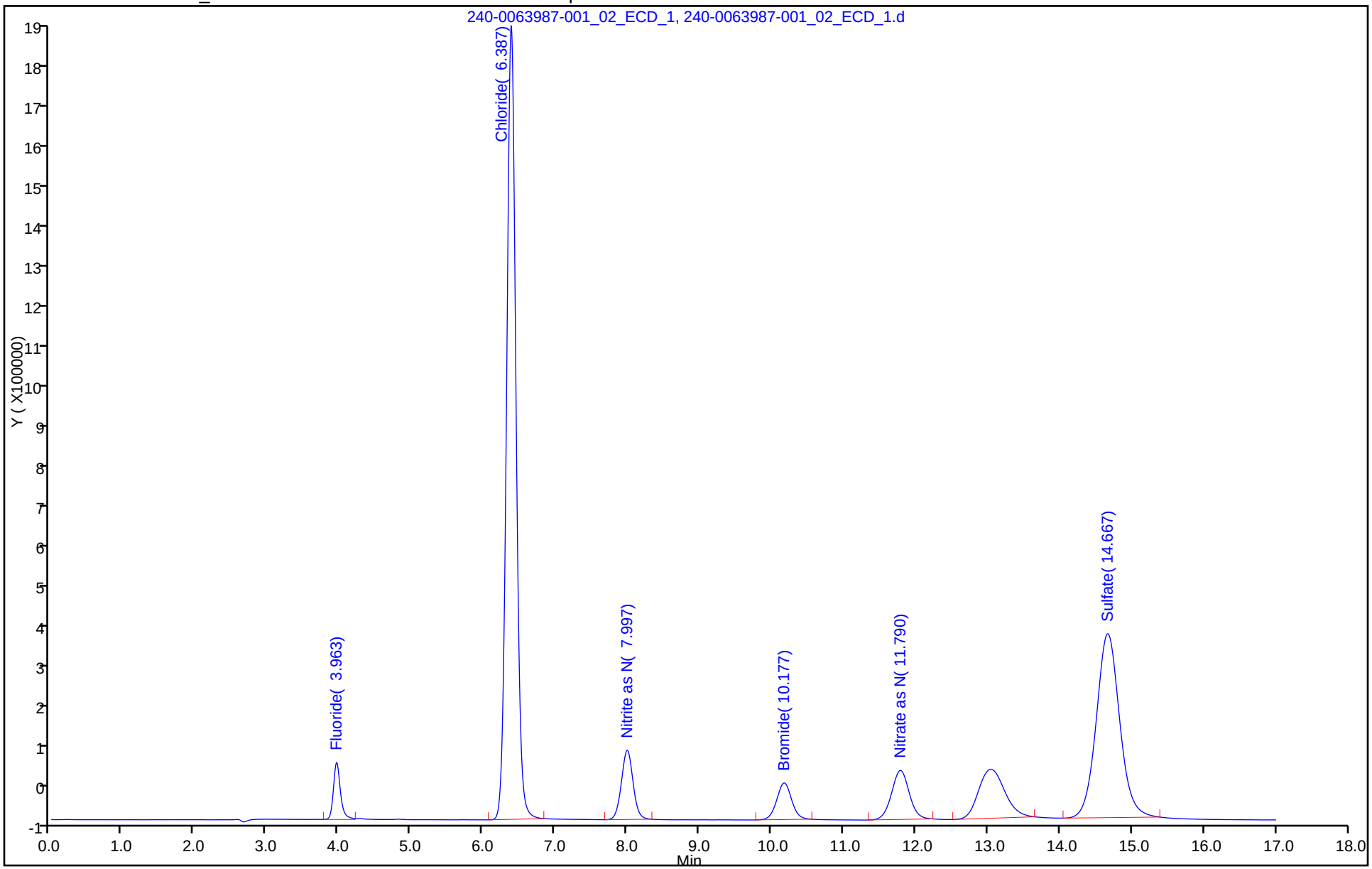
WCICCALSOLN_00282 Amount Added: 0.03 Units: mL

Report Date: 12-Apr-2017 14:42:51 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-001_02_ECD_1.d

Injection Date:	12-Apr-2017 10:47:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-002_03_ECD_1.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2017 11:07:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-002
Misc. Info.: std2
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:51 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.963	3.977	-0.014	5803573	0.2500	0.2332	
2	Chloride	6.387	6.380	0.007	81619989	5.00	4.98	
3	Nitrite as N	7.997	7.997	0.000	9547757	0.2500	0.2508	
4	Bromide	10.177	10.157	0.020	6603912	1.00	0.9505	
5	Nitrate as N	11.790	11.743	0.047	9546044	0.2500	0.2412	
6	Sulfate	14.647	14.350	0.297	56494289	5.00	4.85	
S 7	Nitrate Nitrite as N						0.4920	

Reagents:

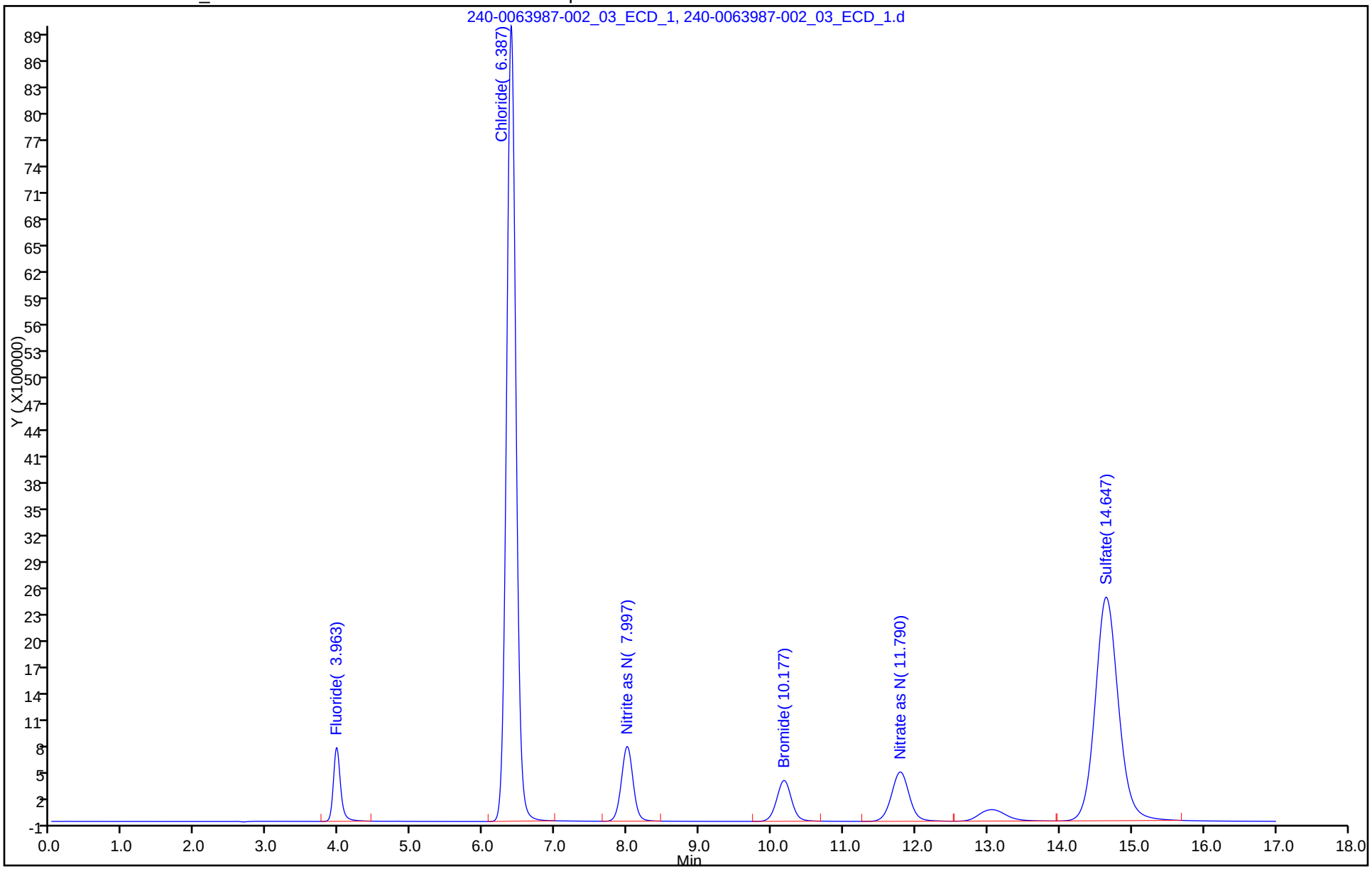
WCICCALSOLN_00282 Amount Added: 0.13 Units: mL

Report Date: 12-Apr-2017 14:42:51 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-002_03_ECD_1.d

Injection Date:	12-Apr-2017 11:07:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-002_03_ECD_1.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2017 11:07:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-002
Misc. Info.: std2
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:51 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.963	3.977	-0.014	5803573	NC	NC	
	2 Chloride	6.387	6.380	0.007	81619989	NC	NC	
	3 Nitrite as N	7.997	7.997	0.000	9547757	0.2500	0.2508	
	4 Bromide	10.177	10.157	0.020	6603912	NC	NC	
	5 Nitrate as N	11.790	11.743	0.047	9546044	0.2500	0.2412	
	6 Sulfate	14.647	14.350	0.297	56494289	NC	NC	
S	7 Nitrate Nitrite as N						0.4920	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

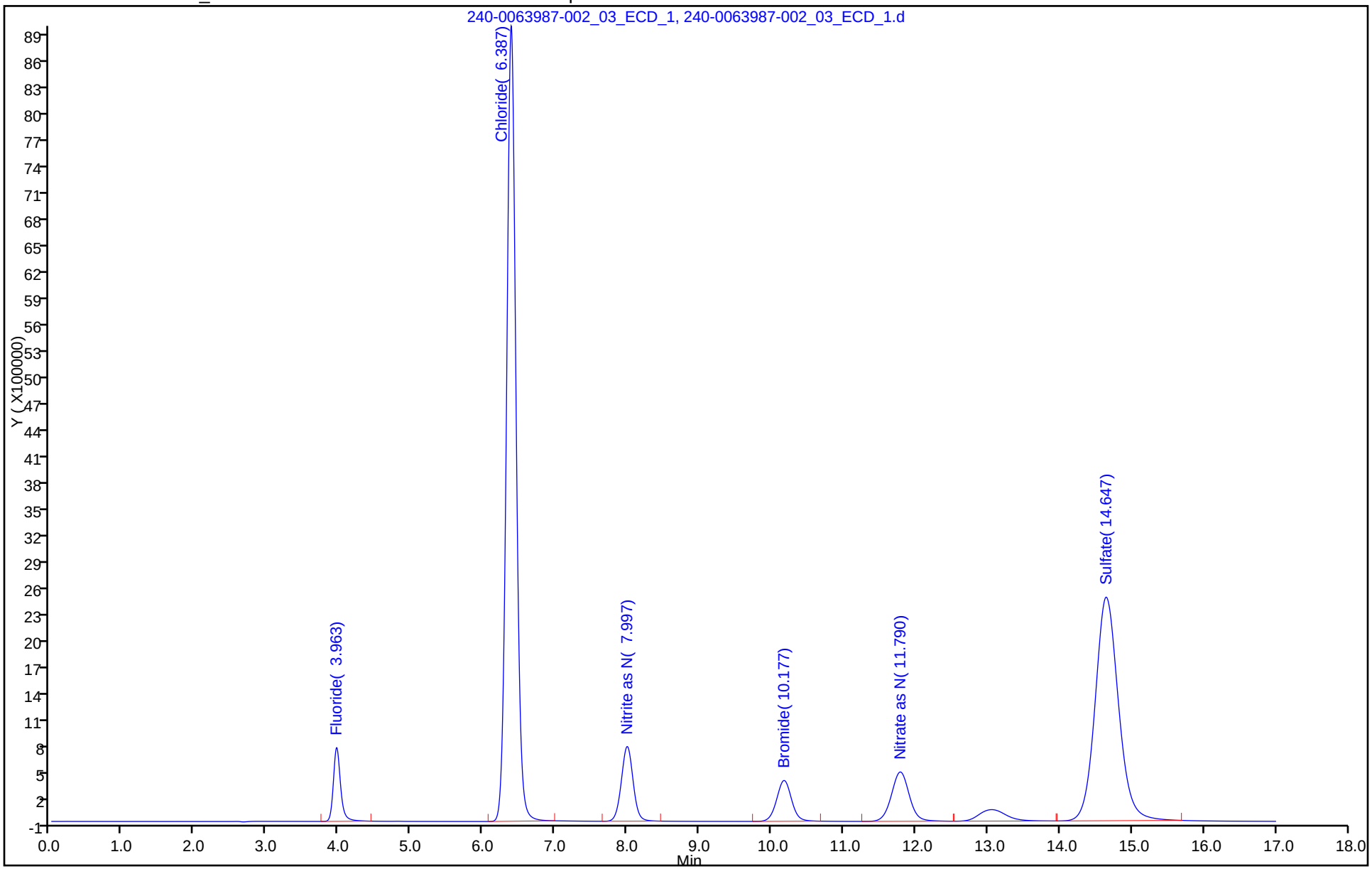
WCICCALSOLN_00282 Amount Added: 0.13 Units: mL

Report Date: 12-Apr-2017 14:42:51 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-002_03_ECD_1.d

Injection Date:	12-Apr-2017 11:07:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-003_04_ECD_1.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2017 11:27:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-003
Misc. Info.: std3
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:52 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.963	3.977	-0.014	12439375	0.5000	0.4999	
2 Chloride	6.380	6.380	0.000	163145031	10.0	9.95	
3 Nitrite as N	7.990	7.997	-0.007	19383873	0.5000	0.5091	
4 Bromide	10.163	10.157	0.006	13571777	2.00	1.95	
5 Nitrate as N	11.773	11.743	0.030	19315858	0.5000	0.4880	
6 Sulfate	14.603	14.350	0.253	116473378	10.0	10.0	
S 7 Nitrate Nitrite as N						1.00	

Reagents:

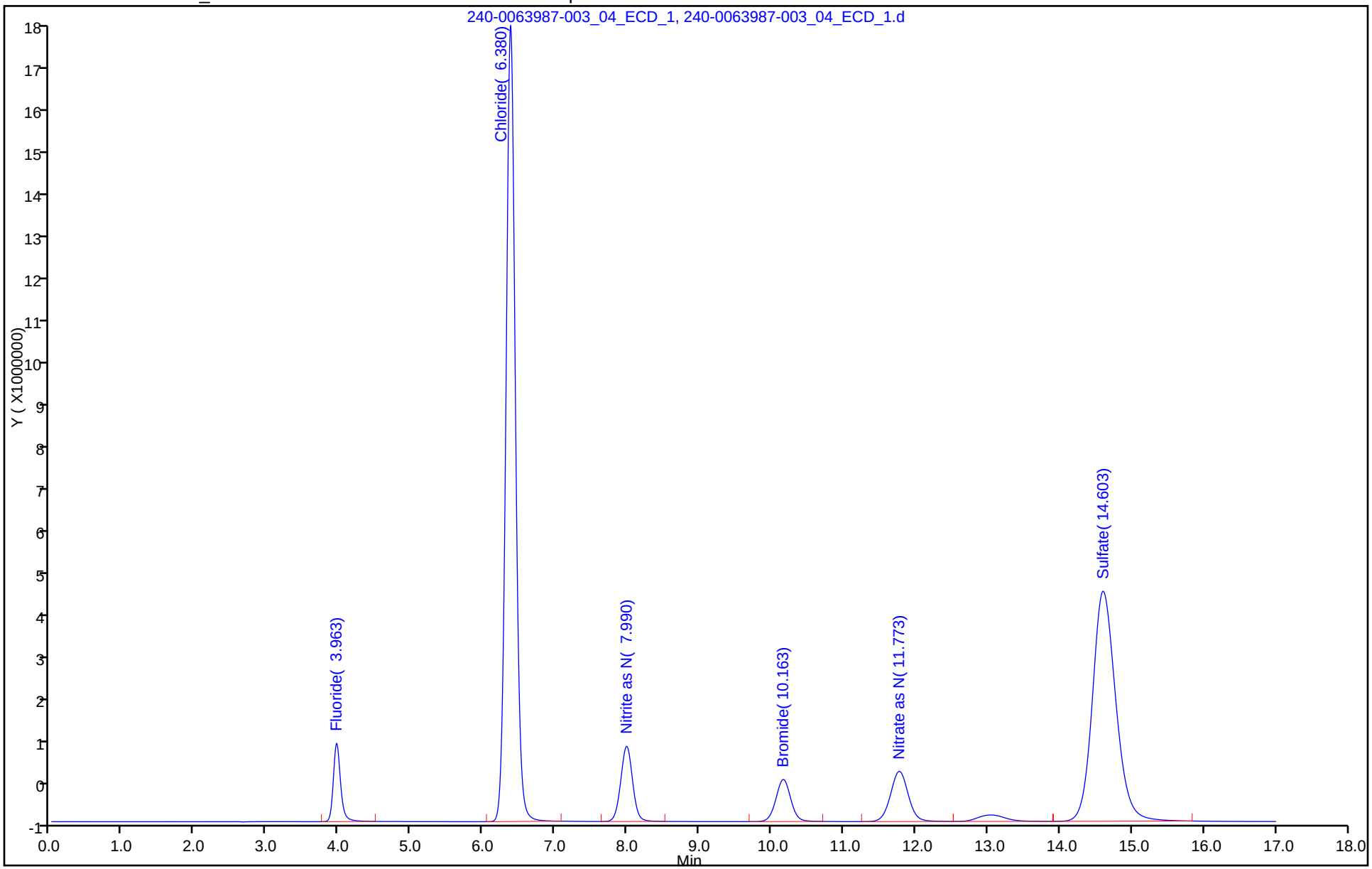
WCICCALSOLN_00282 Amount Added: 0.25 Units: mL

Report Date: 12-Apr-2017 14:42:52 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-003_04_ECD_1.d

Injection Date:	12-Apr-2017 11:27:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-003_04_ECD_1.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2017 11:27:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-003
Misc. Info.: std3
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:52 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.963	3.977	-0.014	12439375	NC	NC	
2	Chloride	6.380	6.380	0.000	163145031	NC	NC	
3	Nitrite as N	7.990	7.997	-0.007	19383873	0.5000	0.5091	
4	Bromide	10.163	10.157	0.006	13571777	NC	NC	
5	Nitrate as N	11.773	11.743	0.030	19315858	0.5000	0.4880	
6	Sulfate	14.603	14.350	0.253	116473378	NC	NC	
S 7	Nitrate Nitrite as N						1.00	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

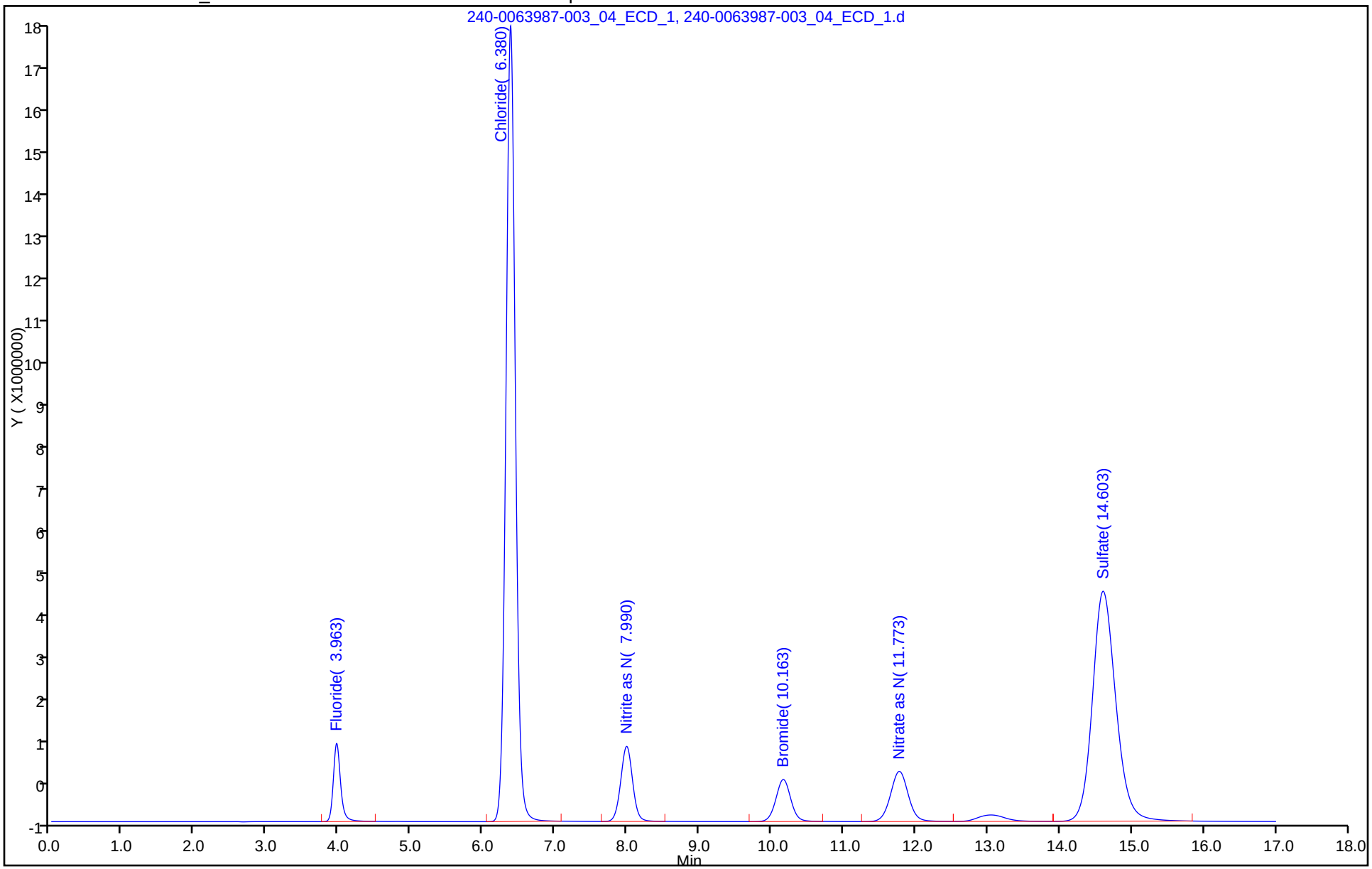
WCICCALSOLN_00282 Amount Added: 0.25 Units: mL

Report Date: 12-Apr-2017 14:42:52 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-003_04_ECD_1.d

Injection Date:	12-Apr-2017 11:27:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-004_05_ECD_1.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2017 11:48:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-004
Misc. Info.: std4
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:53 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:21:00

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.973	3.977	-0.004	25829080	1.00	1.04	
2	Chloride	6.387	6.380	0.007	325406559	20.0	19.8	
3	Nitrite as N	8.000	7.997	0.003	38982032	1.00	1.02	
4	Bromide	10.170	10.157	0.013	27773444	4.00	4.00	
5	Nitrate as N	11.770	11.743	0.027	39100351	1.00	0.9879	
6	Sulfate	14.527	14.350	0.177	236462736	20.0	20.3	
S 7	Nitrate Nitrite as N						2.01	

Reagents:

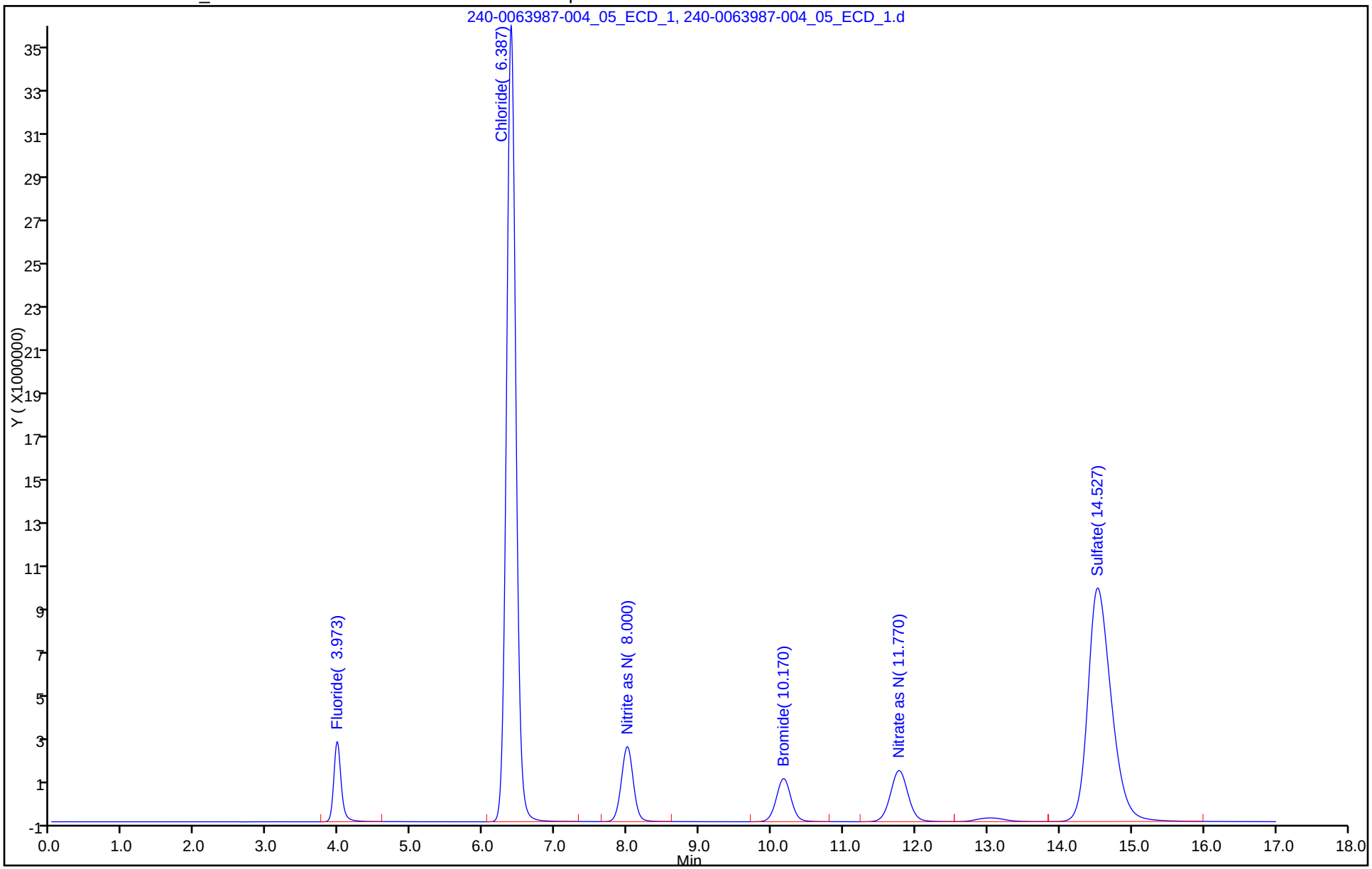
WCICCALSOLN_00282 Amount Added: 0.50 Units: mL

Report Date: 12-Apr-2017 14:42:53 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-004_05_ECD_1.d

Injection Date:	12-Apr-2017 11:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-004_05_ECD_1.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2017 11:48:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-004
Misc. Info.: std4
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:53 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:21:00

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.973	3.977	-0.004	25829080	NC	NC	
2	Chloride	6.387	6.380	0.007	325406559	NC	NC	
3	Nitrite as N	8.000	7.997	0.003	38982032	1.00	1.02	
4	Bromide	10.170	10.157	0.013	27773444	NC	NC	
5	Nitrate as N	11.770	11.743	0.027	39100351	1.00	0.9879	
6	Sulfate	14.527	14.350	0.177	236462736	NC	NC	
S 7	Nitrate Nitrite as N						2.01	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

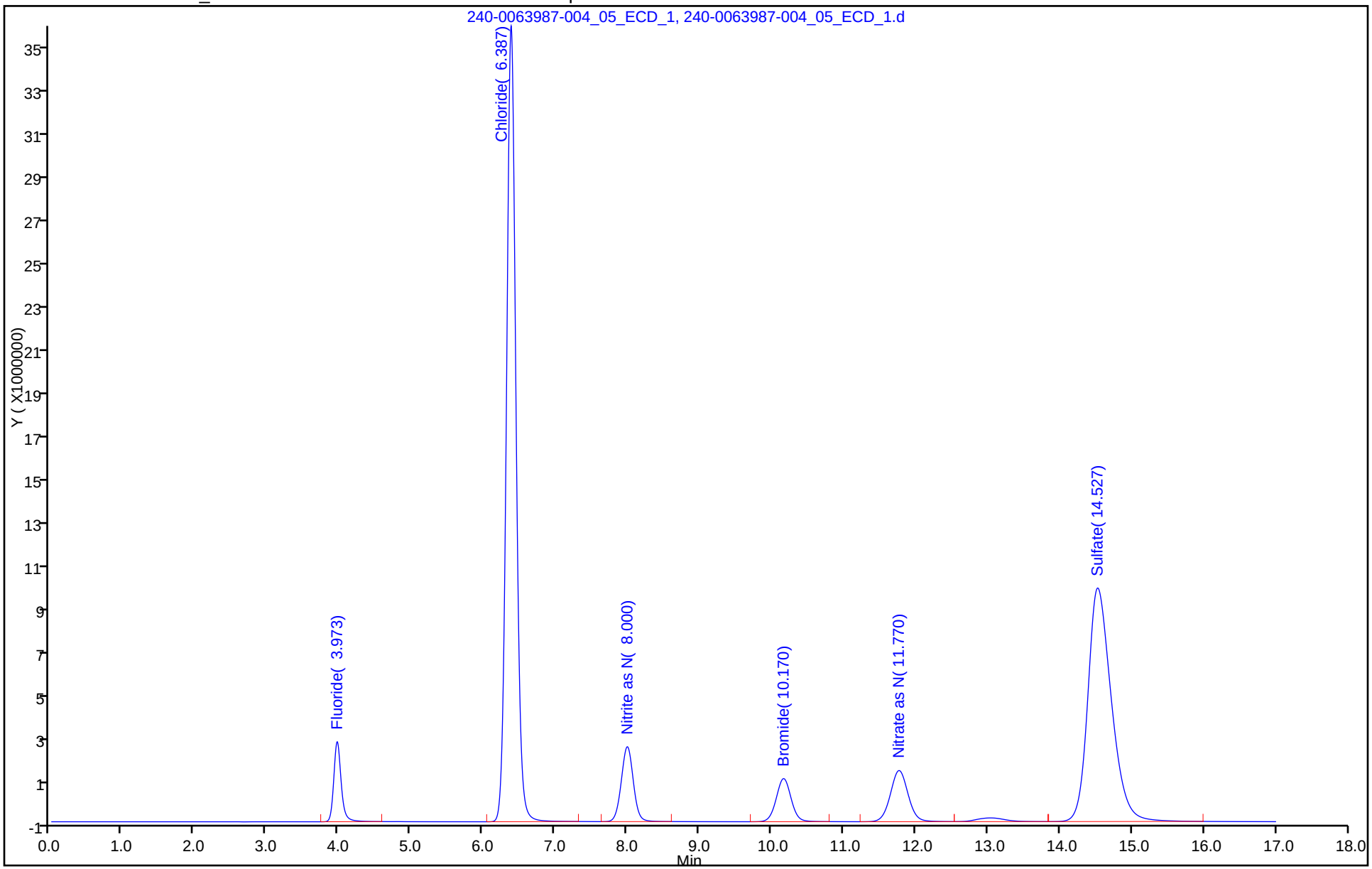
WCICCALSOLN_00282 Amount Added: 0.50 Units: mL

Report Date: 12-Apr-2017 14:42:53 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-004_05_ECD_1.d

Injection Date:	12-Apr-2017 11:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-005_06_ECD_1.d
Lims ID: STD5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 12-Apr-2017 12:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-005
Misc. Info.: std5
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:54 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:20:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.977	3.977	0.000	67486324	2.50	2.71	M
2 Chloride	6.380	6.380	0.000	828955519	50.0	50.5	
3 Nitrite as N	7.997	7.997	0.000	98716546	2.50	2.59	
4 Bromide	10.157	10.157	0.000	72173287	10.0	10.4	
5 Nitrate as N	11.743	11.743	0.000	101060340	2.50	2.55	
6 Sulfate	14.350	14.350	0.000	608986785	50.0	52.3	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

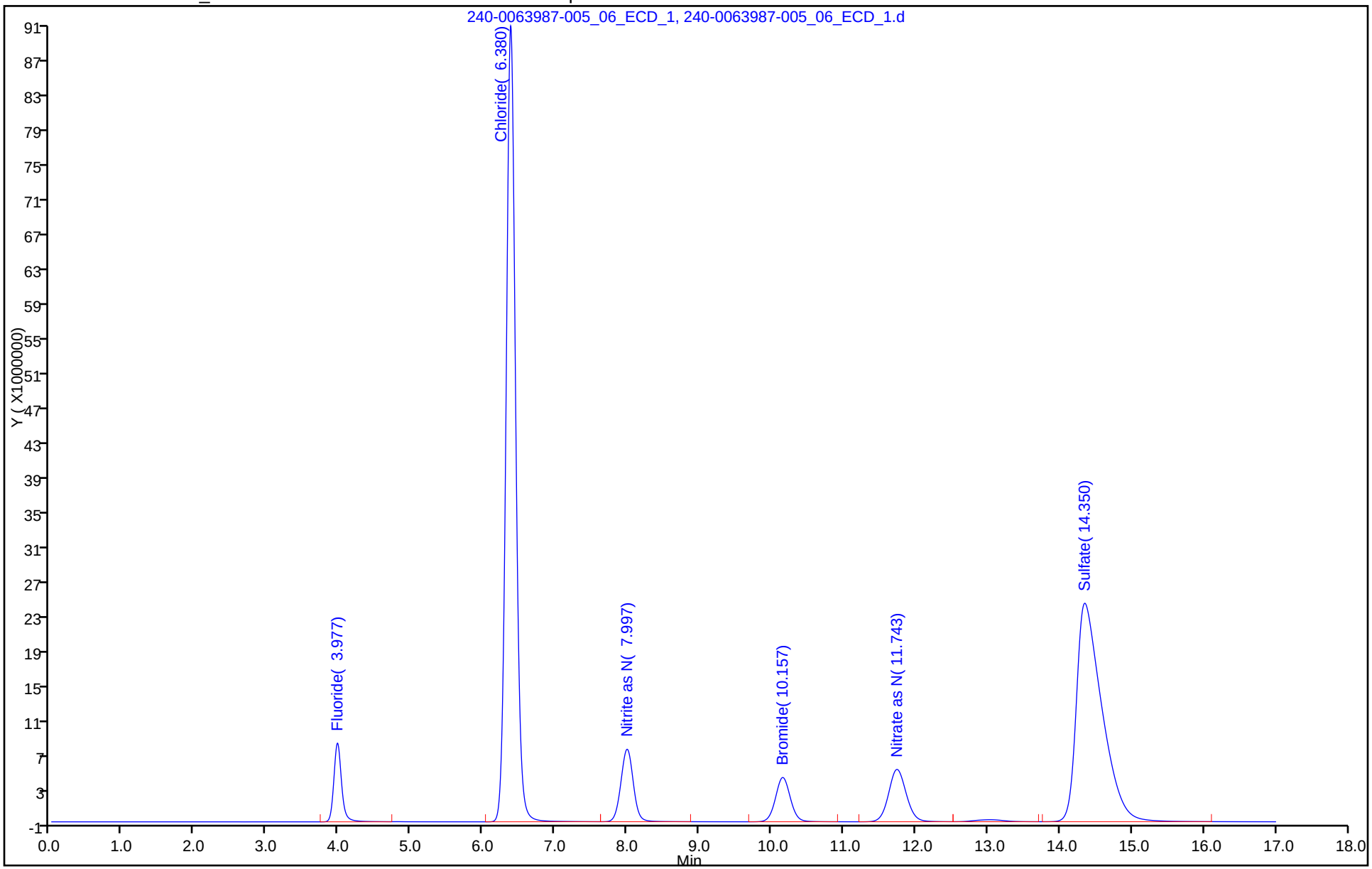
WCICCALSOLN_00282 Amount Added: 1.25 Units: mL

Report Date: 12-Apr-2017 14:42:54 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-005_06_ECD_1.d

Injection Date:	12-Apr-2017 12:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

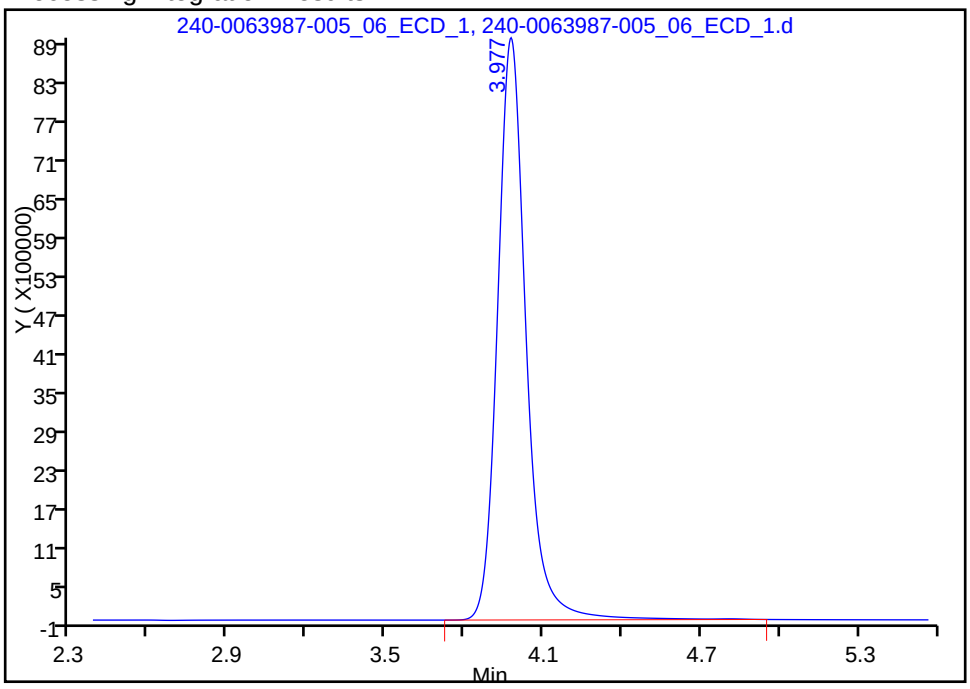
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-005_06_ECD_1.d
Injection Date: 12-Apr-2017 12:08:00 Instrument ID: VERONICA
Lims ID: STD5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

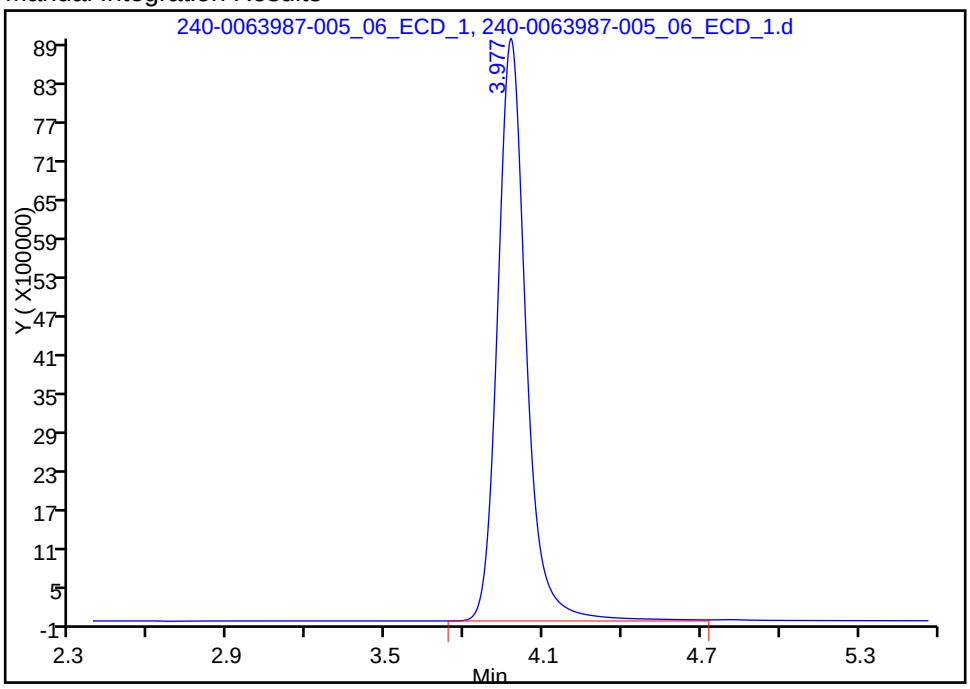
Processing Integration Results

RT: 3.98
Area: 67348186
Amount: 2.722778
Amount Units: ug/ml



Manual Integration Results

RT: 3.98
Area: 67486324
Amount: 2.712015
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:24:44
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-005_06_ECD_1.d
Lims ID: STD5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 12-Apr-2017 12:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-005
Misc. Info.: std5
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:54 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:20:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.977	3.977	0.000	67486324	NC	NC	M
2 Chloride	6.380	6.380	0.000	828955519	NC	NC	
3 Nitrite as N	7.997	7.997	0.000	98716546	2.50	2.59	
4 Bromide	10.157	10.157	0.000	72173287	NC	NC	
5 Nitrate as N	11.743	11.743	0.000	101060340	2.50	2.55	
6 Sulfate	14.350	14.350	0.000	608986785	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

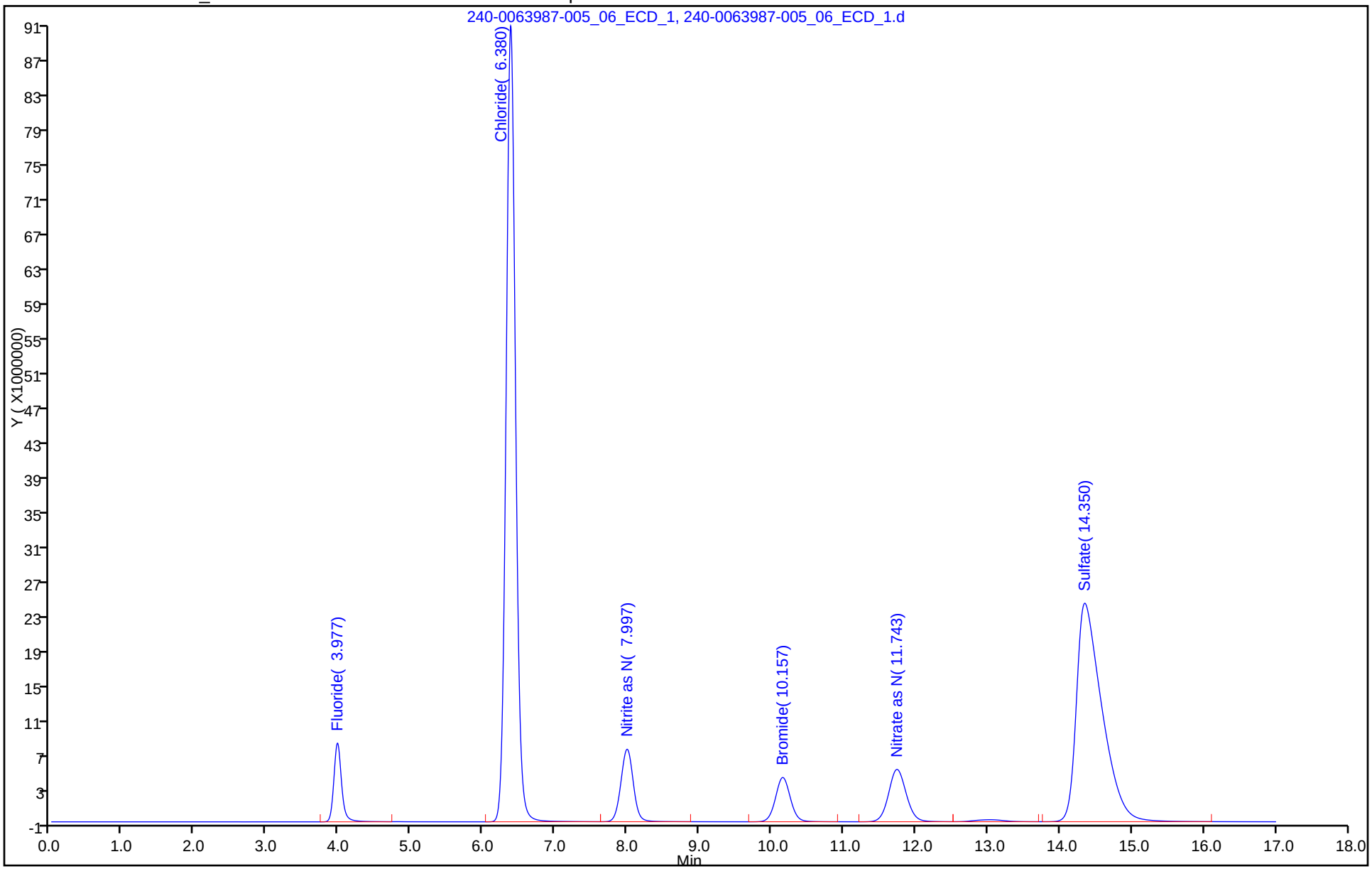
WCICCALSOLN_00282 Amount Added: 1.25 Units: mL

Report Date: 12-Apr-2017 14:42:54 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-005_06_ECD_1.d

Injection Date:	12-Apr-2017 12:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-006_07_ECD_1.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2017 12:28:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-006
Misc. Info.: std6
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:54 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:24

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.967	3.977	-0.010	106528503	4.00	4.28	M
2	Chloride	6.367	6.380	-0.013	1312758072	80.0	80.0	
3	Nitrite as N	7.983	7.997	-0.014	154484676	4.00	4.06	
4	Bromide	10.130	10.157	-0.027	115034820	16.0	16.6	
5	Nitrate as N	11.700	11.743	-0.043	160830533	4.00	4.06	
6	Sulfate	14.210	14.350	-0.140	966074305	80.0	82.9	
S 7	Nitrate Nitrite as N						8.12	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

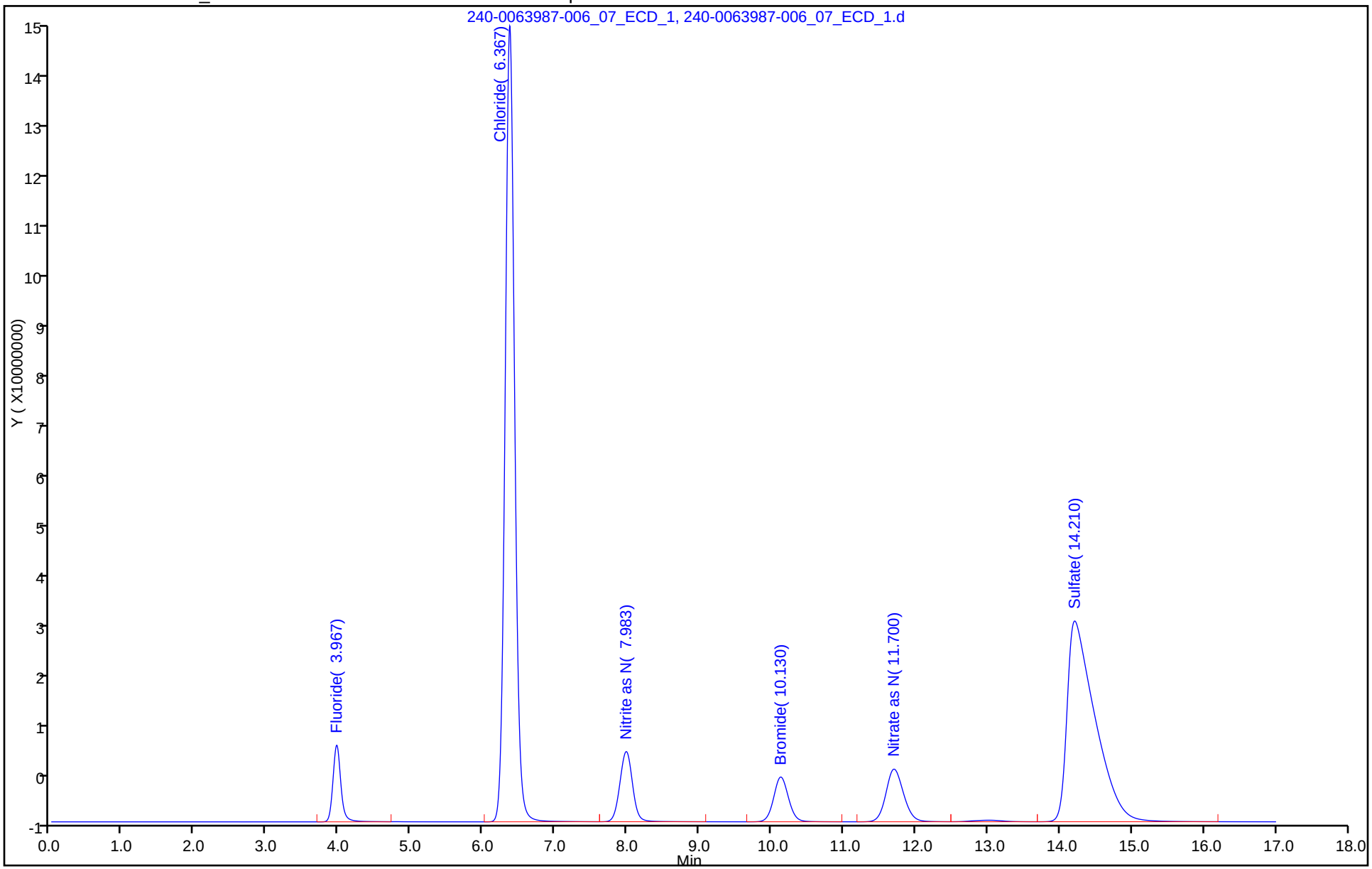
WCICCALSOLN_00282 Amount Added: 2.00 Units: mL

Report Date: 12-Apr-2017 14:42:55 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-006_07_ECD_1.d

Injection Date:	12-Apr-2017 12:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

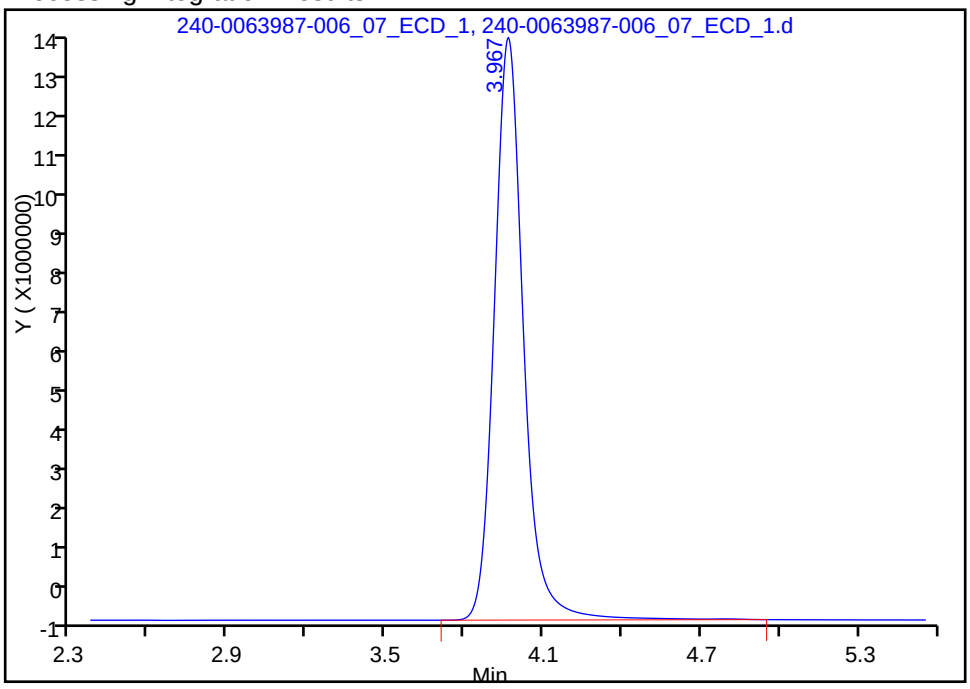
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-006_07_ECD_1.d
Injection Date: 12-Apr-2017 12:28:00 Instrument ID: VERONICA
Lims ID: STD6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

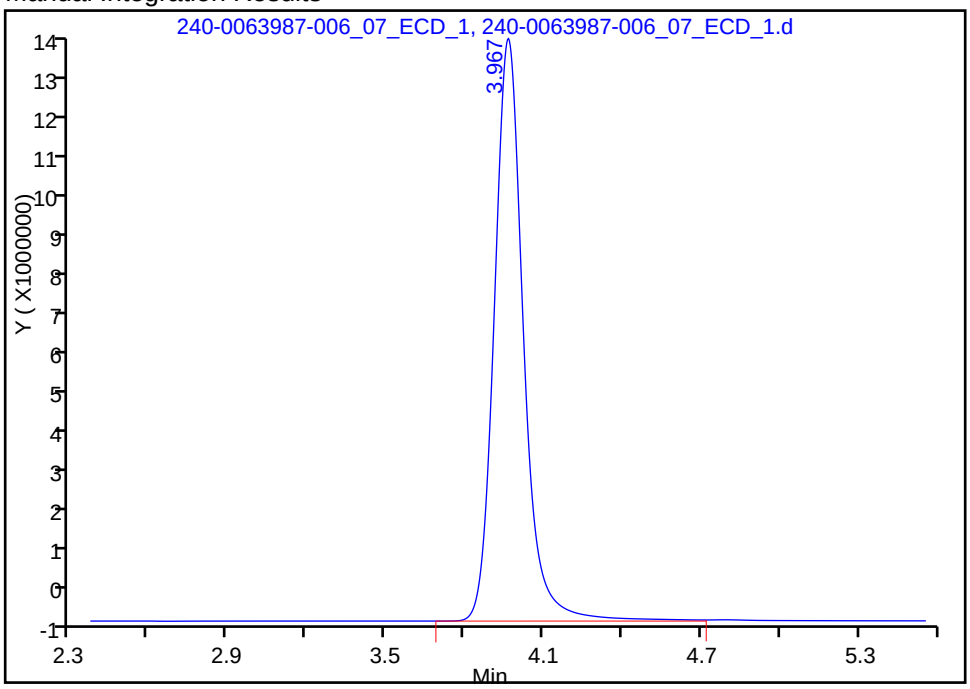
Processing Integration Results

RT: 3.97
Area: 106345606
Amount: 4.285721
Amount Units: ug/ml



Manual Integration Results

RT: 3.97
Area: 106528503
Amount: 4.280970
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:25:06
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-006_07_ECD_1.d
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2017 12:28:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-006
Misc. Info.: std6
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:54 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:24

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.967	3.977	-0.010	106528503	NC	NC	M
	2 Chloride	6.367	6.380	-0.013	1312758072	NC	NC	
	3 Nitrite as N	7.983	7.997	-0.014	154484676	4.00	4.06	
	4 Bromide	10.130	10.157	-0.027	115034820	NC	NC	
	5 Nitrate as N	11.700	11.743	-0.043	160830533	4.00	4.06	
	6 Sulfate	14.210	14.350	-0.140	966074305	NC	NC	
S	7 Nitrate Nitrite as N						8.12	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

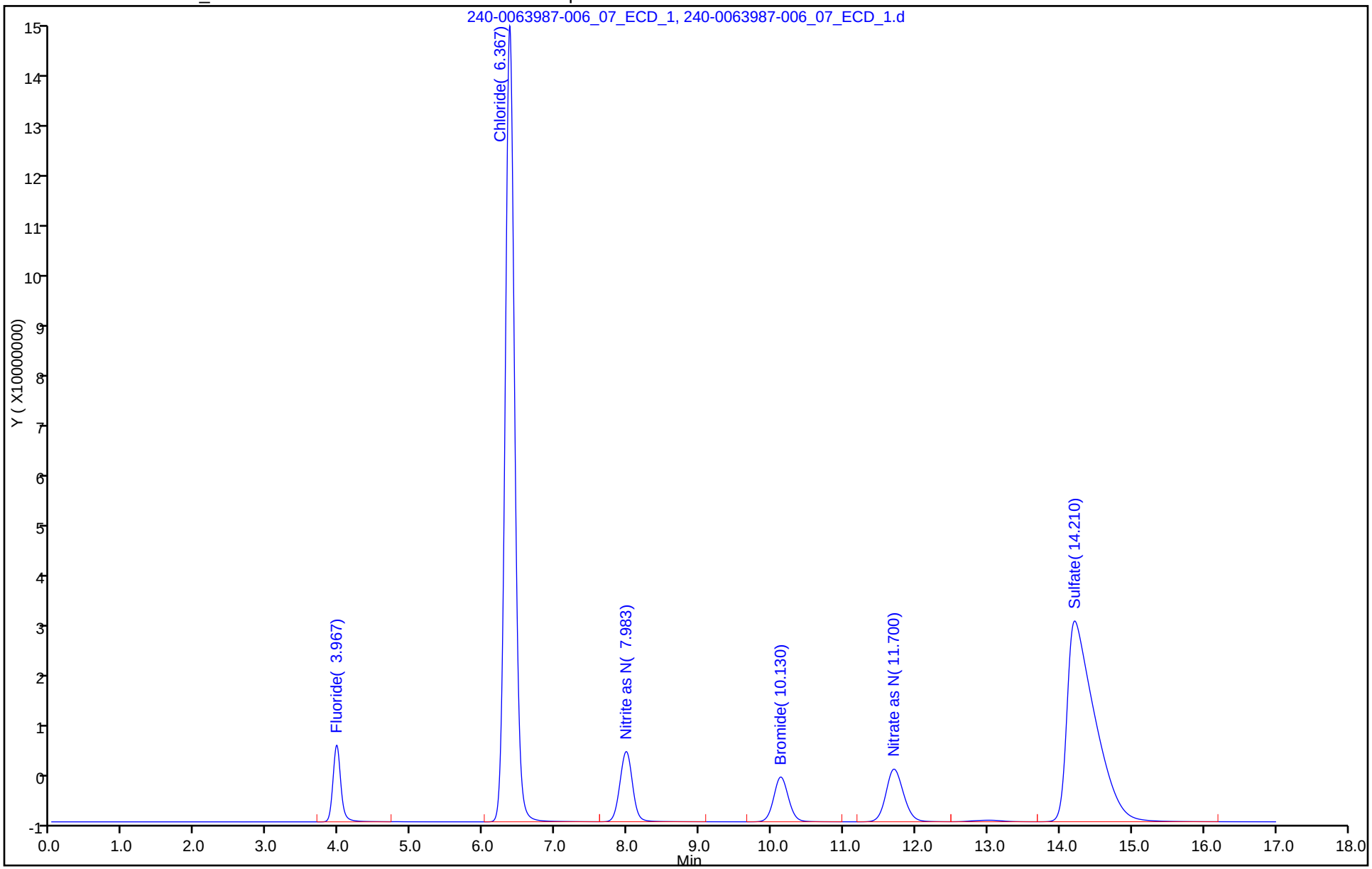
WCICCALSOLN_00282 Amount Added: 2.00 Units: mL

Report Date: 12-Apr-2017 14:42:55 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-006_07_ECD_1.d

Injection Date:	12-Apr-2017 12:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-007_08_ECD_1.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2017 12:48:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-007
Misc. Info.: std7
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:55 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:23:13

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.987	3.977	0.010	132291398	5.00	5.32	M
2	Chloride	6.383	6.380	0.003	1630772541	100.0	99.4	
3	Nitrite as N	7.990	7.997	-0.007	190315112	5.00	5.00	
4	Bromide	10.130	10.157	-0.027	143726268	20.0	20.7	
5	Nitrate as N	11.693	11.743	-0.050	200805742	5.00	5.07	
6	Sulfate	14.147	14.350	-0.203	1205053585	100.0	103.5	
S 7	Nitrate Nitrite as N						10.1	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

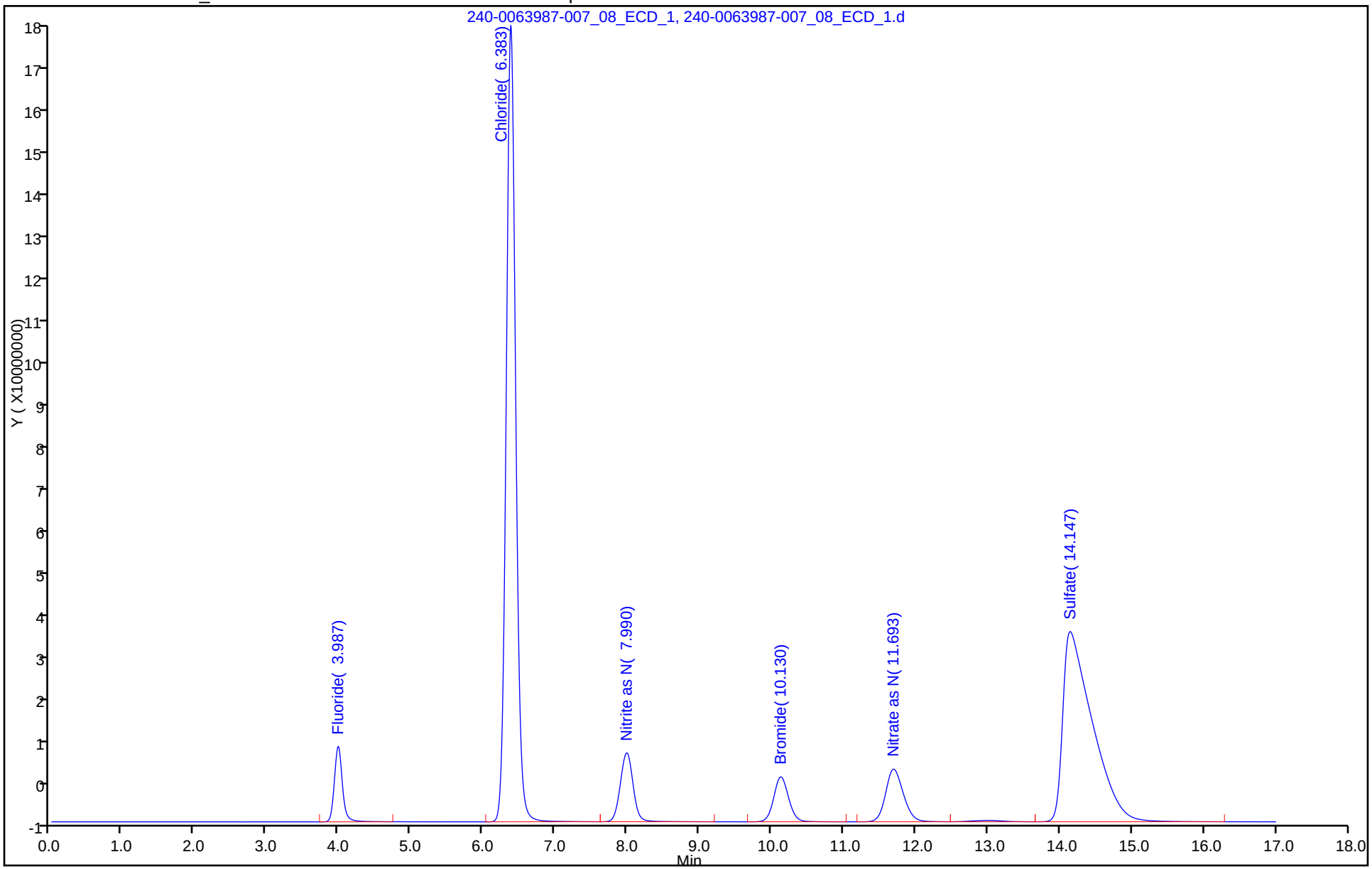
WCICCALSOLN_00282 Amount Added: 2.50 Units: mL

Report Date: 12-Apr-2017 14:42:55 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-007_08_ECD_1.d

Injection Date:	12-Apr-2017 12:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD7			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

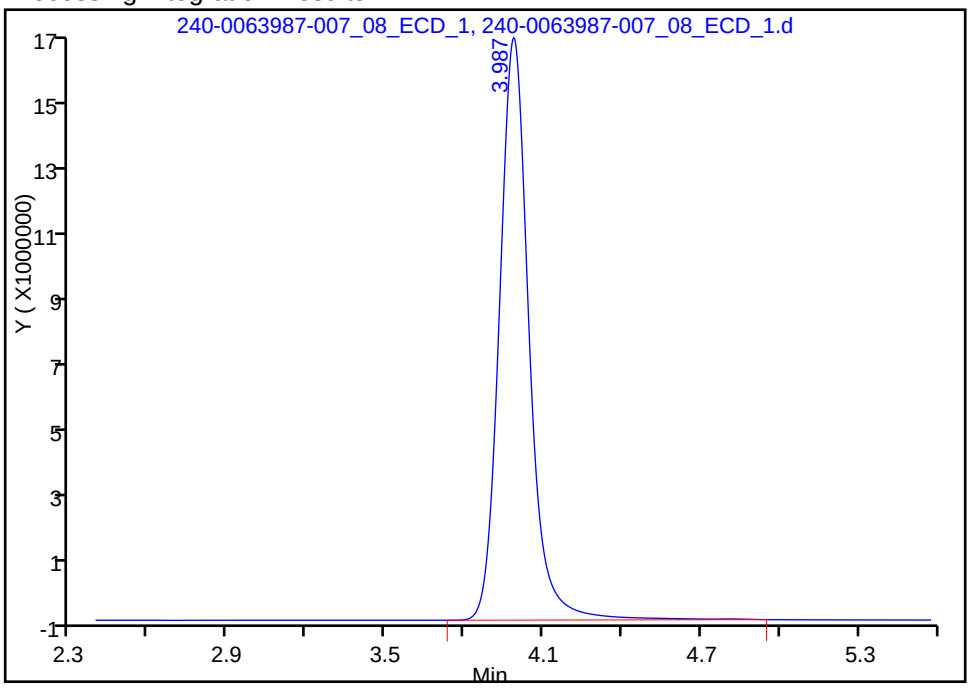
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-007_08_ECD_1.d
Injection Date: 12-Apr-2017 12:48:00 Instrument ID: VERONICA
Lims ID: STD7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

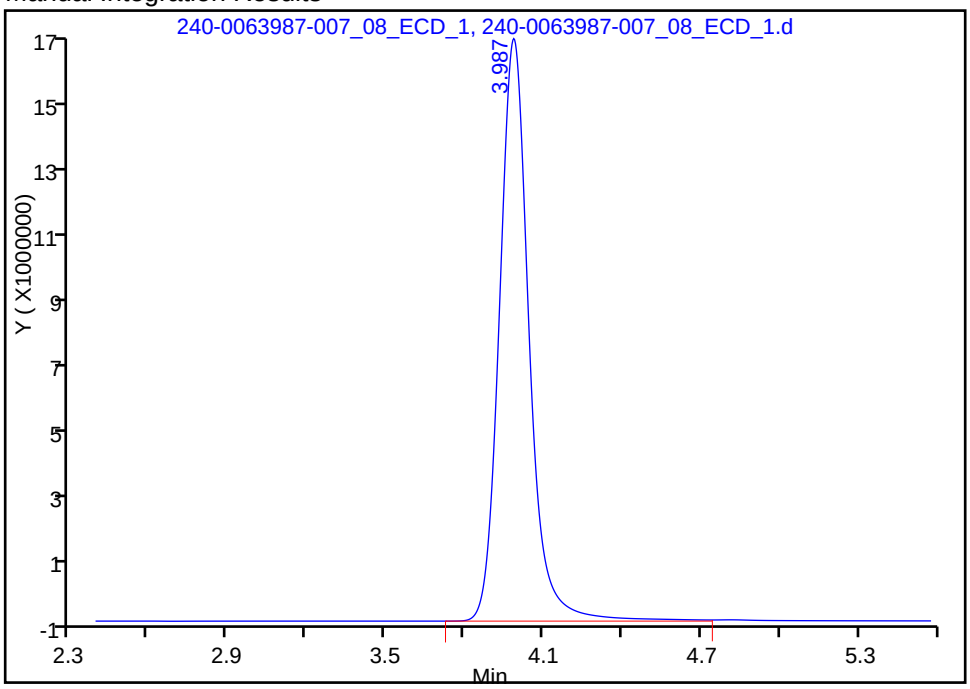
Processing Integration Results

RT: 3.99
Area: 132022110
Amount: 5.334098
Amount Units: ug/ml



Manual Integration Results

RT: 3.99
Area: 132291398
Amount: 5.316282
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:25:31
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-007_08_ECD_1.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2017 12:48:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-007
Misc. Info.: std7
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:55 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:23:13

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.987	3.977	0.010	132291398	NC	NC	M
	2 Chloride	6.383	6.380	0.003	1630772541	NC	NC	
	3 Nitrite as N	7.990	7.997	-0.007	190315112	5.00	5.00	
	4 Bromide	10.130	10.157	-0.027	143726268	NC	NC	
	5 Nitrate as N	11.693	11.743	-0.050	200805742	5.00	5.07	
	6 Sulfate	14.147	14.350	-0.203	1205053585	NC	NC	
S	7 Nitrate Nitrite as N						10.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

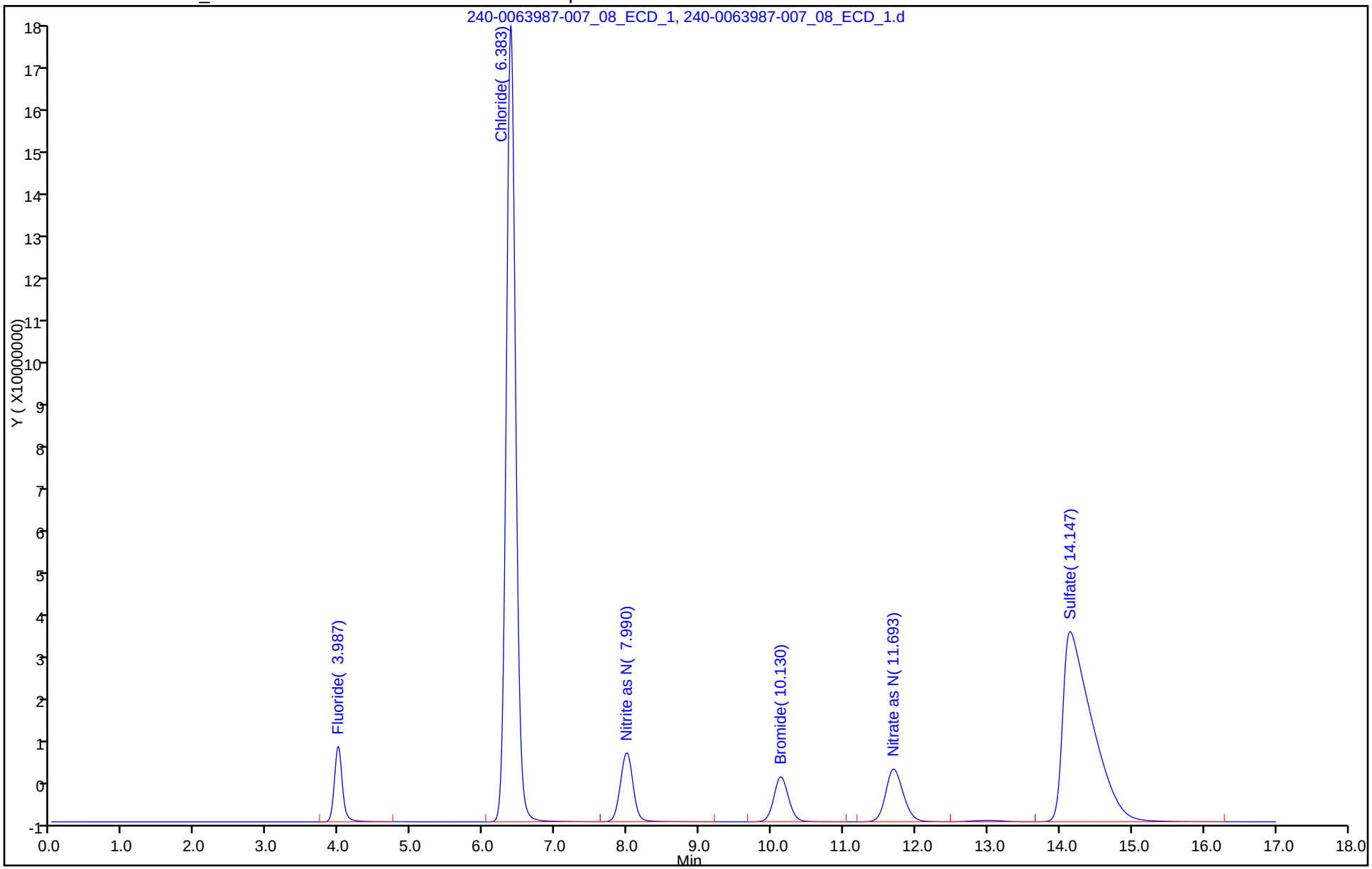
WCICCALSOLN_00282 Amount Added: 2.50 Units: mL

Report Date: 12-Apr-2017 14:42:56 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-007_08_ECD_1.d

Injection Date:	12-Apr-2017 12:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD7			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-008_09_ECD_1.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Apr-2017 13:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-008
Misc. Info.: std8
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:56 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:59

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.973	3.977	-0.004	195782790	7.50	7.87	M
2	Chloride	6.367	6.380	-0.013	2448780941	150.0	149.3	
3	Nitrite as N	7.977	7.997	-0.020	281252475	7.50	7.39	
4	Bromide	10.097	10.157	-0.060	216835617	30.0	31.2	
5	Nitrate as N	11.633	11.743	-0.110	302236546	7.50	7.64	
6	Sulfate	13.977	14.350	-0.373	1809888072	150.0	155.4	
S 7	Nitrate Nitrite as N						15.0	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

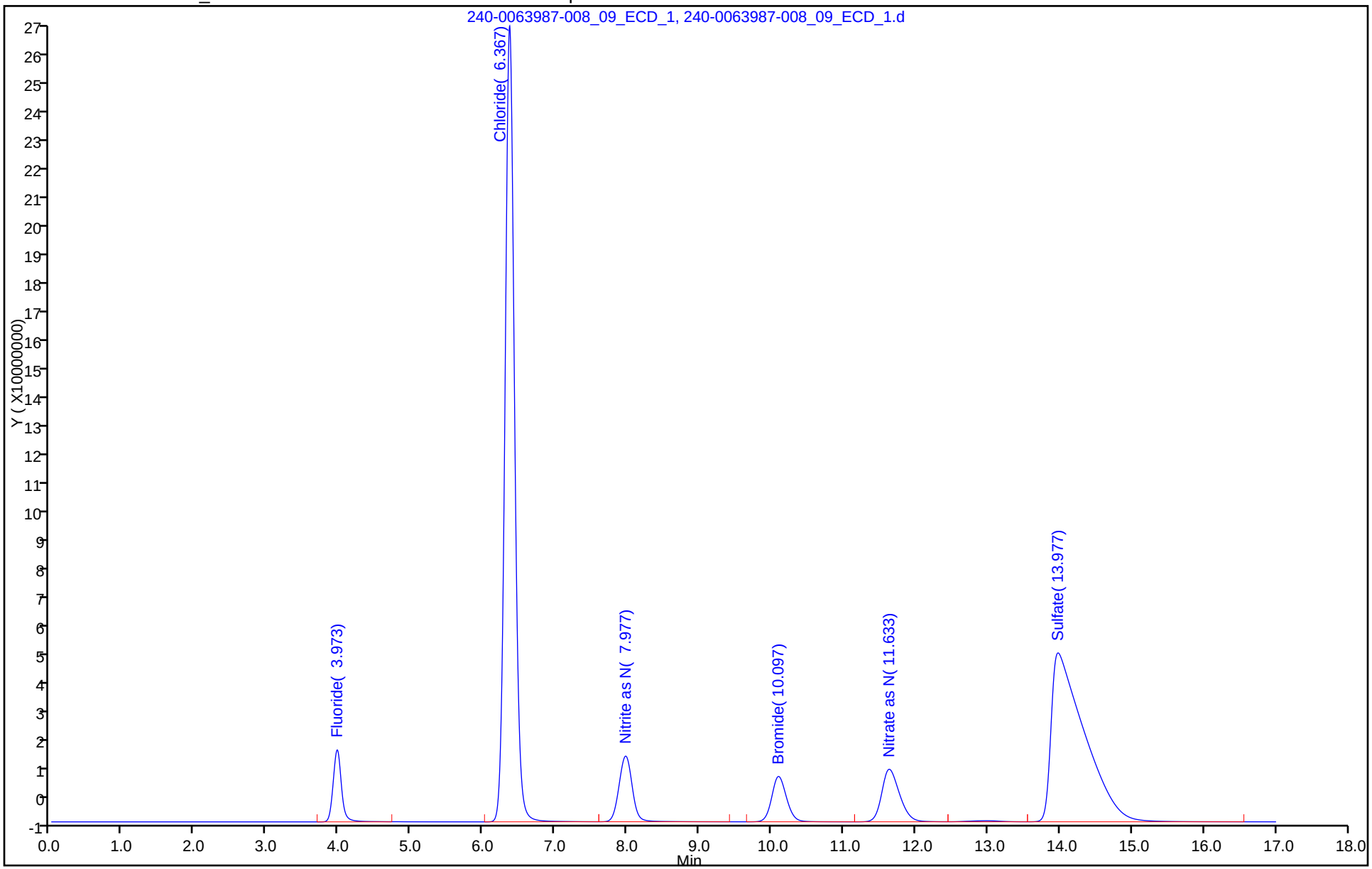
WCICCALSOLN_00282 Amount Added: 3.75 Units: mL

Report Date: 12-Apr-2017 14:42:56 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-008_09_ECD_1.d

Injection Date:	12-Apr-2017 13:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD8			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

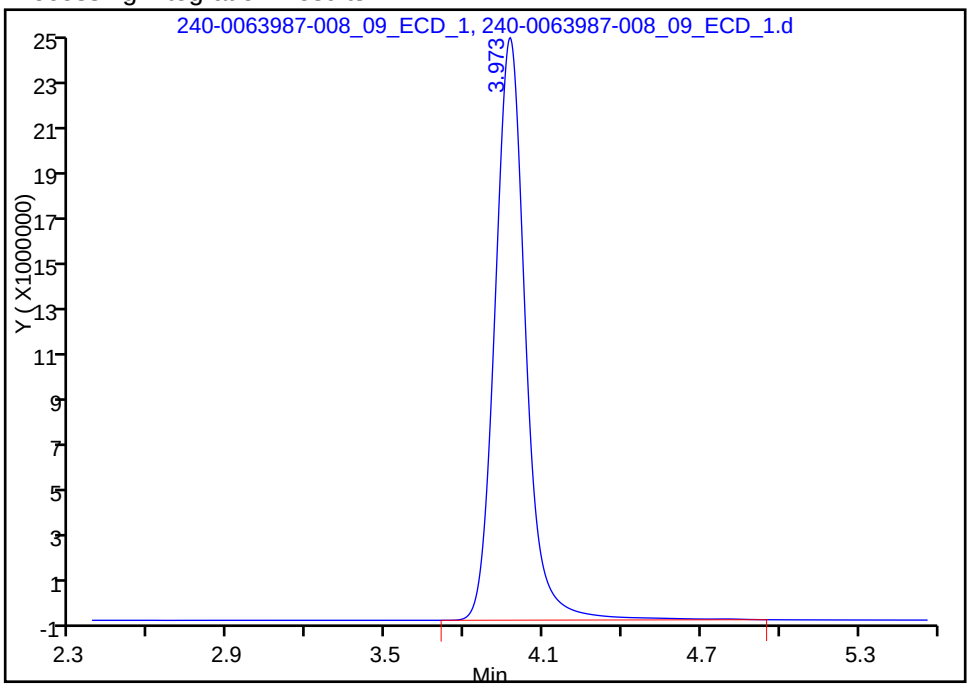
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-008_09_ECD_1.d
Injection Date: 12-Apr-2017 13:08:00 Instrument ID: VERONICA
Lims ID: STD8
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

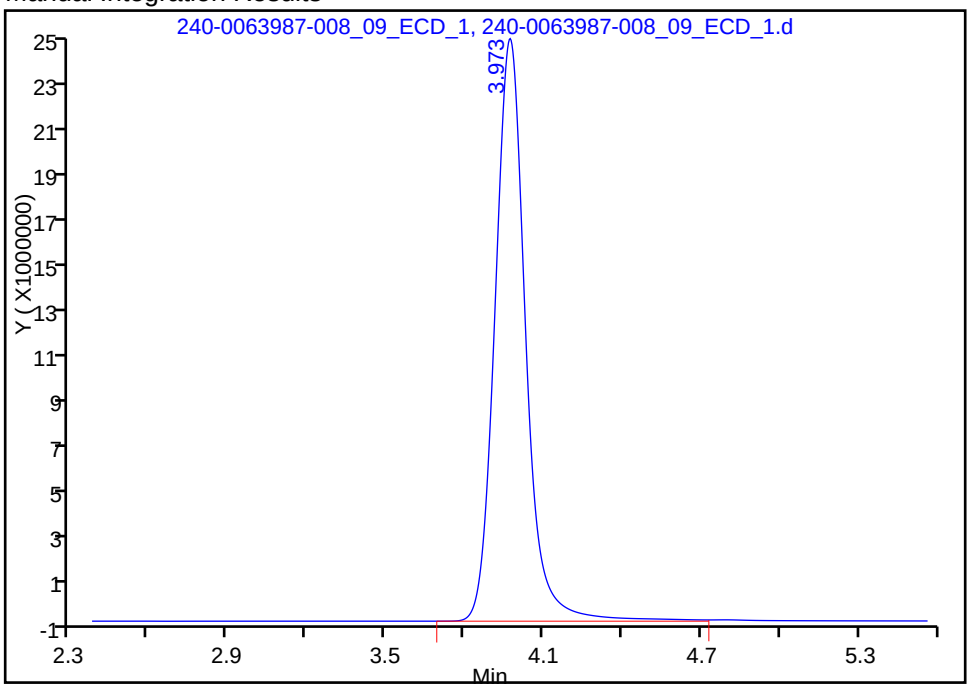
Processing Integration Results

RT: 3.97
Area: 195413801
Amount: 7.889599
Amount Units: ug/ml



Manual Integration Results

RT: 3.97
Area: 195782790
Amount: 7.867756
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:25:49
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-008_09_ECD_1.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Apr-2017 13:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-008
Misc. Info.: std8
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:56 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:59

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.973	3.977	-0.004	195782790	NC	NC	M
2	Chloride	6.367	6.380	-0.013	2448780941	NC	NC	
3	Nitrite as N	7.977	7.997	-0.020	281252475	7.50	7.39	
4	Bromide	10.097	10.157	-0.060	216835617	NC	NC	
5	Nitrate as N	11.633	11.743	-0.110	302236546	7.50	7.64	
6	Sulfate	13.977	14.350	-0.373	1809888072	NC	NC	
S 7	Nitrate Nitrite as N						15.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

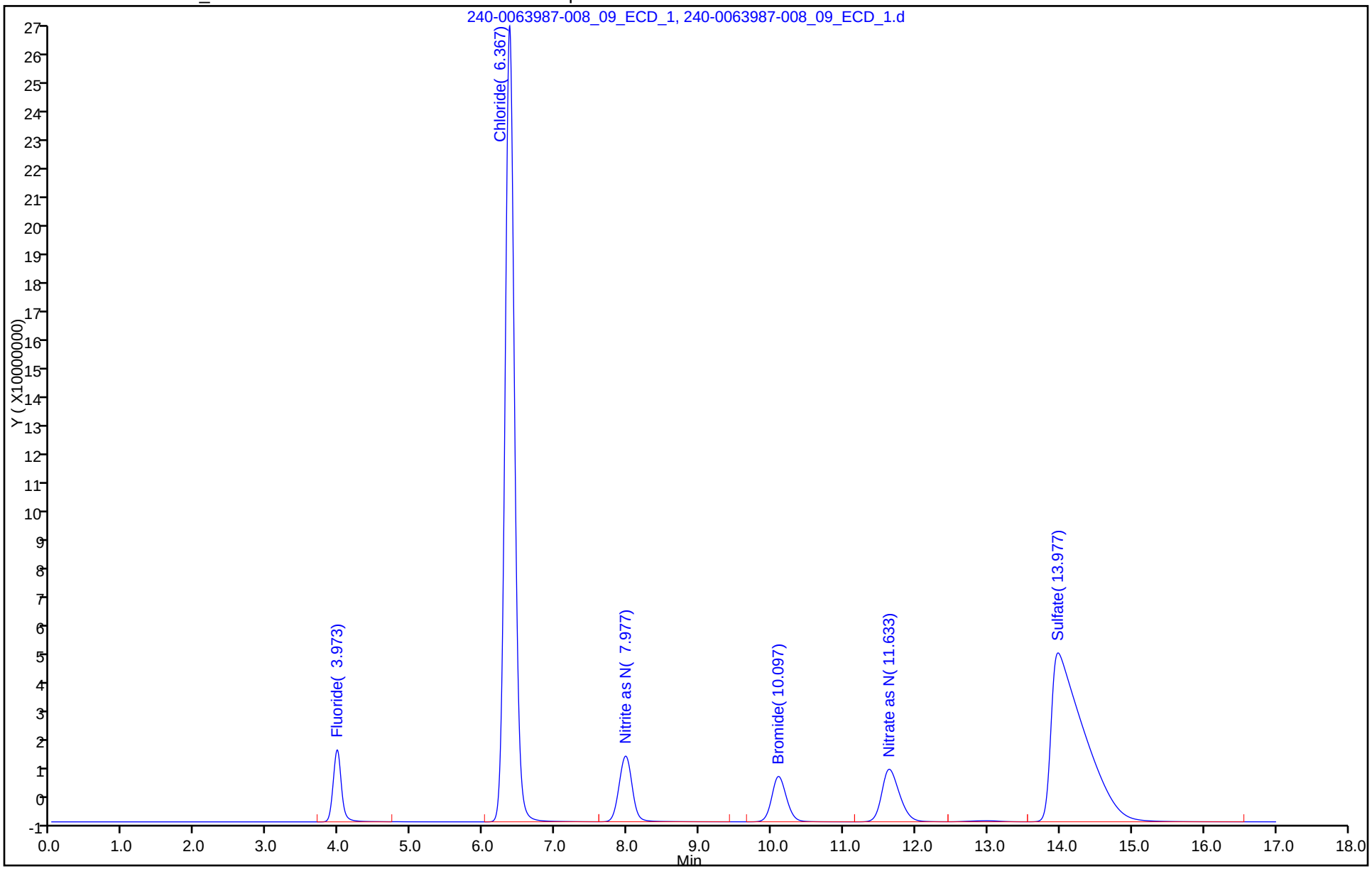
WCICCALSOLN_00282 Amount Added: 3.75 Units: mL

Report Date: 12-Apr-2017 14:42:56 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-008_09_ECD_1.d

Injection Date:	12-Apr-2017 13:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD8			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Apr-2017 13:28:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-009
Misc. Info.: std9
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:47

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.987	3.977	0.010	257249845	10.0	10.3	M
2	Chloride	6.370	6.380	-0.010	3272618855	200.0	199.5	
3	Nitrite as N	7.980	7.997	-0.017	369883902	10.0	9.72	
4	Bromide	10.087	10.157	-0.070	290711128	40.0	41.8	
5	Nitrate as N	11.600	11.743	-0.143	405796543	10.0	10.3	
6	Sulfate	13.857	14.350	-0.493	2414977120	200.0	207.3	
S 7	Nitrate Nitrite as N						20.0	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

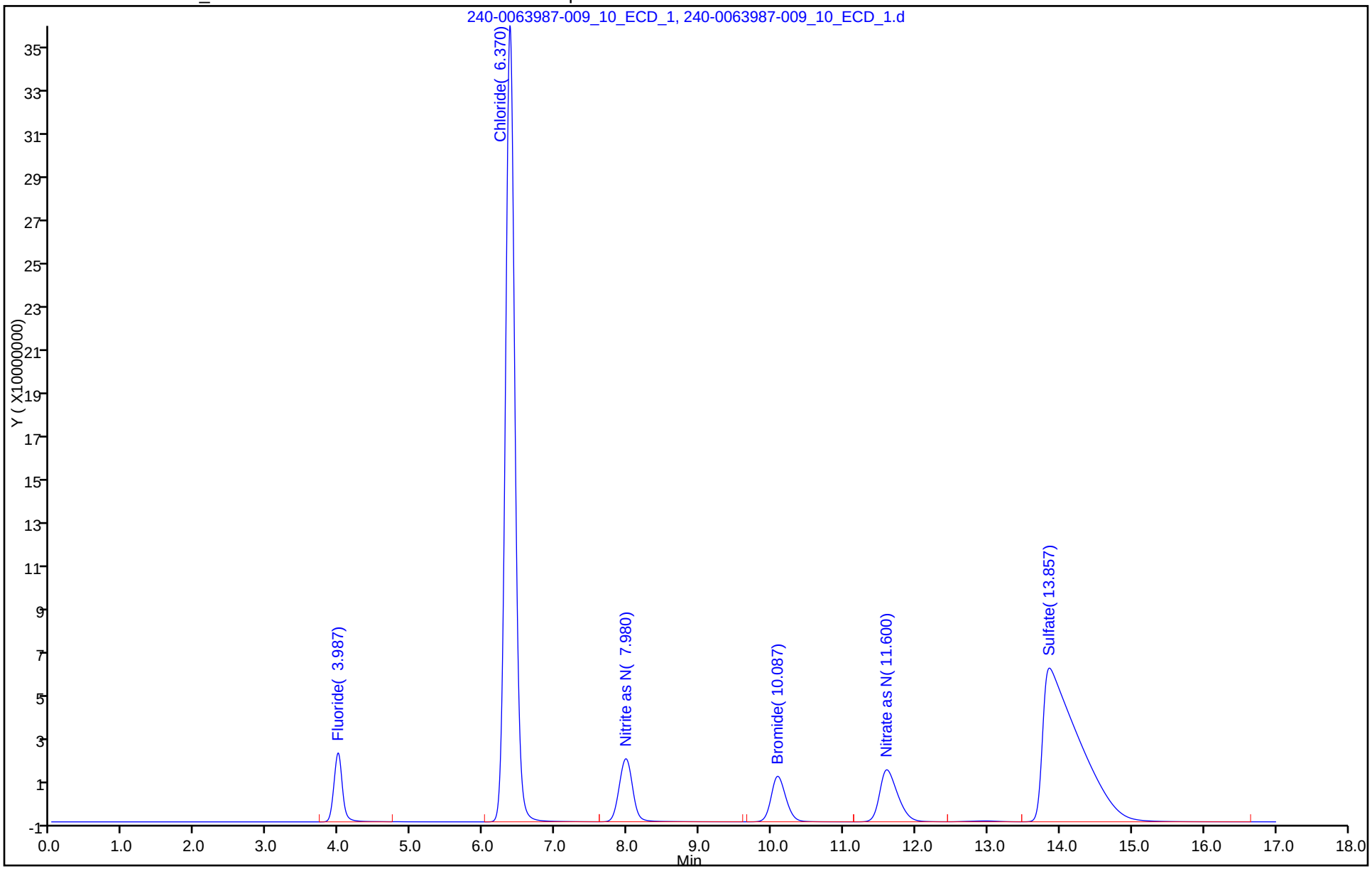
WCICCALSOLN_00282 Amount Added: 5.00 Units: mL

Report Date: 12-Apr-2017 14:42:57 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Injection Date:	12-Apr-2017 13:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD9			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Canton

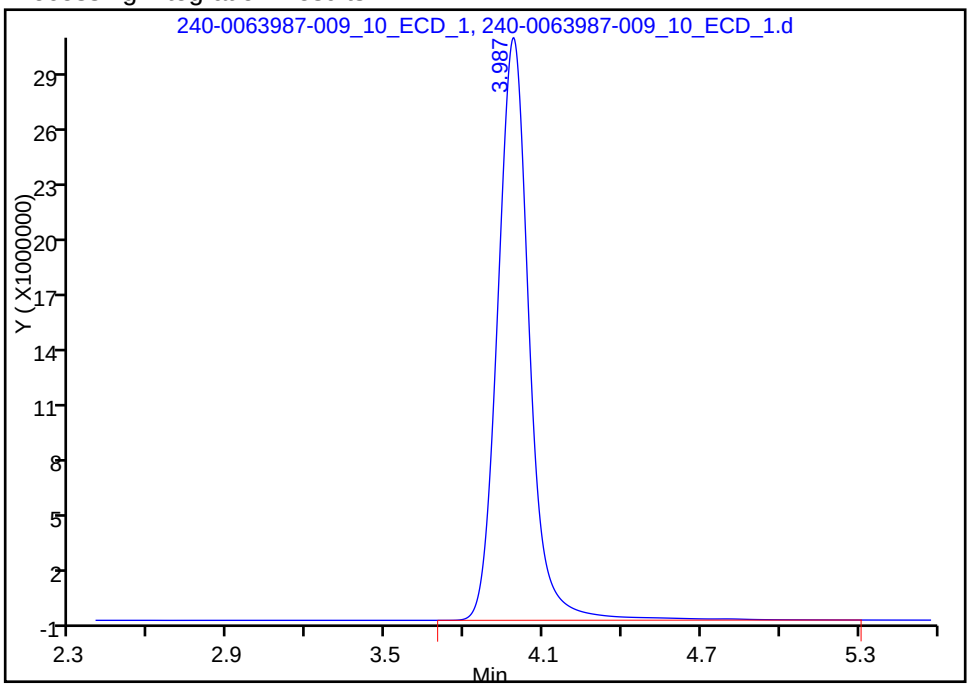
Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d
Injection Date: 12-Apr-2017 13:28:00 Instrument ID: VERONICA
Lims ID: STD9
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_Veronica Limit Group: WET IC ICAL
Column: Detector IC 0001

1 Fluoride, CAS: 16984-48-8

Signal: 1

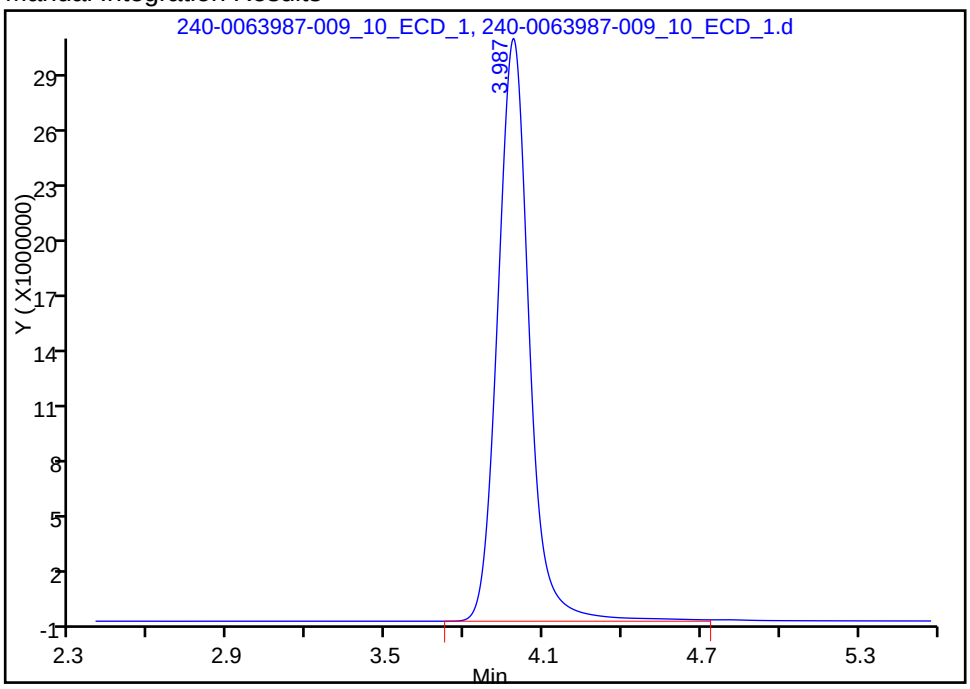
Processing Integration Results

RT: 3.99
Area: 257754598
Amount: 10.394367
Amount Units: ug/ml



Manual Integration Results

RT: 3.99
Area: 257249845
Amount: 10.337880
Amount Units: ug/ml



Reviewer: nollel, 12-Apr-2017 14:26:09
Audit Action: Manually Integrated Audit Reason: Peak not integrated

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Apr-2017 13:28:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-009
Misc. Info.: std9
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:22:47

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.987	3.977	0.010	257249845	NC	NC	M
2	Chloride	6.370	6.380	-0.010	3272618855	NC	NC	
3	Nitrite as N	7.980	7.997	-0.017	369883902	10.0	9.72	
4	Bromide	10.087	10.157	-0.070	290711128	NC	NC	
5	Nitrate as N	11.600	11.743	-0.143	405796543	10.0	10.3	
6	Sulfate	13.857	14.350	-0.493	2414977120	NC	NC	
S 7	Nitrate Nitrite as N						20.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

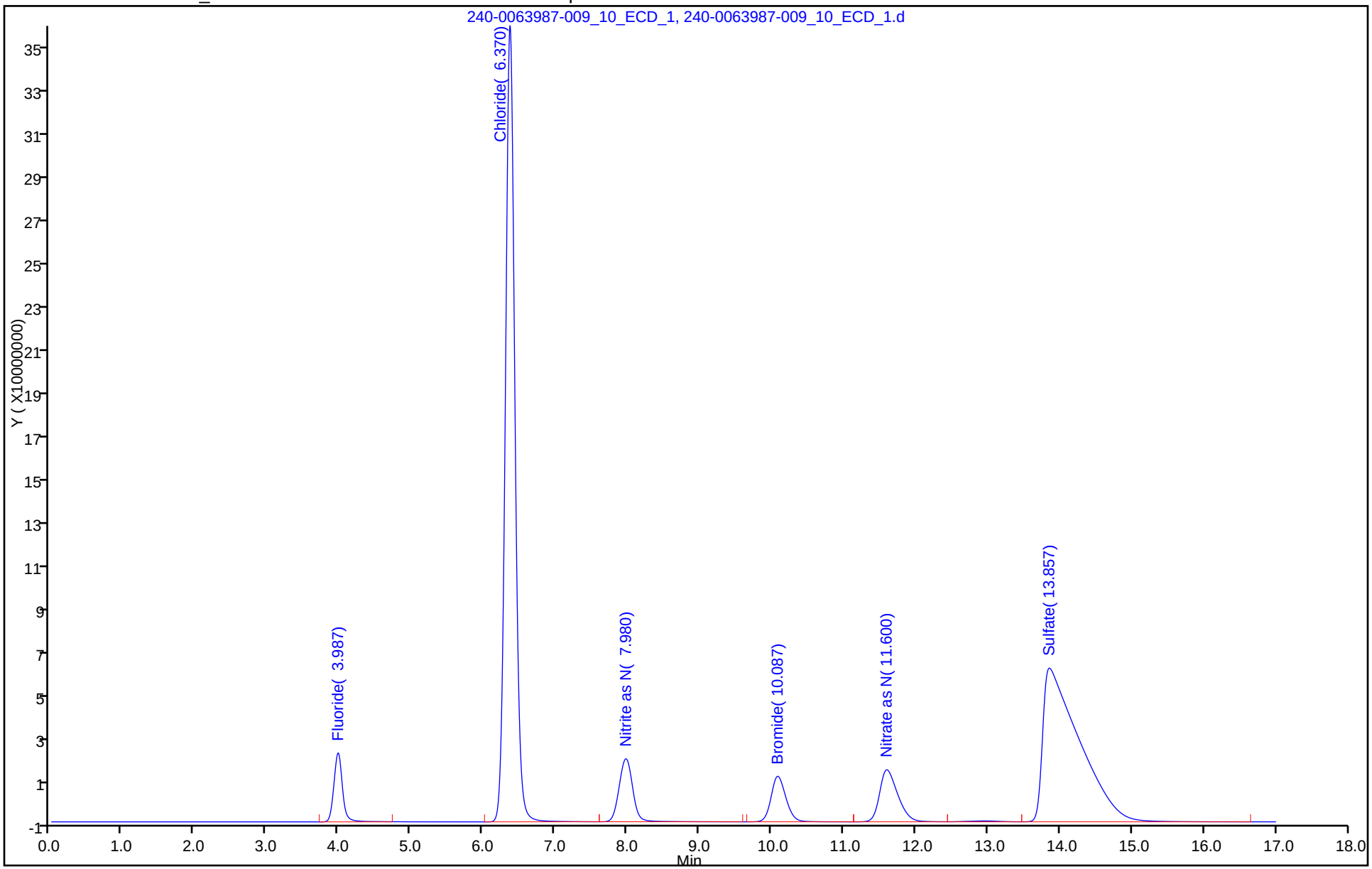
WCICCALSOLN_00282 Amount Added: 5.00 Units: mL

Report Date: 12-Apr-2017 14:42:57 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Injection Date:	12-Apr-2017 13:28:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	STD9			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Laboratories
Initial Calibration RRF Report

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Instrument: VERONICA Lims Location: 240
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 12-Apr-2017 14:26:53
No.Compounds:9

Initial Calibration Batches

Ical Batch: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b
Inj Date : 12-Apr-2017 10:47:00, Sublist: chrom-300_Veronica*sub2

Limit Group: WET IC ICAL

Detector 1: IC 0001

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	b	M1	M2	Rse	Rsd/R^2
1 Fluoride	18121360	23214292	24878750	25829080	26994530	26632126	26458280	26104372	25724985		24884197		11.2	Avg 11.2
2 Chloride	16710120	16323998	16314503	16270328	16579110	16409476	16307725	16325206	16363094		16400396		0.9	Avg 0.9
3 Nitrite as N	36048160	38191028	38767746	38982032	39486618	38621169	38063022	37500330	36988390		38072055		2.8	Avg 2.8
4 Bromide	6109675	6603912	6785889	6943361	7217329	7189676	7186313	7227854	7267778		6947976		5.6	Avg 5.6
5 Nitrate as N	38632180	38184176	38631716	39100351	40424136	40207633	40161148	40298206	40579654		39579911		2.4	Avg 2.4
6 Sulfate	9613778	11298858	11647338	11823137	12179736	12075929	12050536	12065920	12074886		11647791		7.0	Avg 7.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-010_11_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2017 13:48:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-010
Misc. Info.: icv
Operator ID: Instrument ID: VERONICA
Sublist:

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:38:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.977	3.977	0.000	66306402	2.50	2.66	
2 Chloride	6.380	6.380	0.000	833613371	50.0	50.8	
3 Nitrite as N	7.997	7.997	0.000	96588042	2.50	2.54	
4 Bromide	10.153	10.157	-0.004	72105141	10.0	10.4	
5 Nitrate as N	11.737	11.743	-0.006	101460262	2.50	2.56	
6 Sulfate	14.350	14.350	0.000	603134604	50.0	51.8	

Reagents:

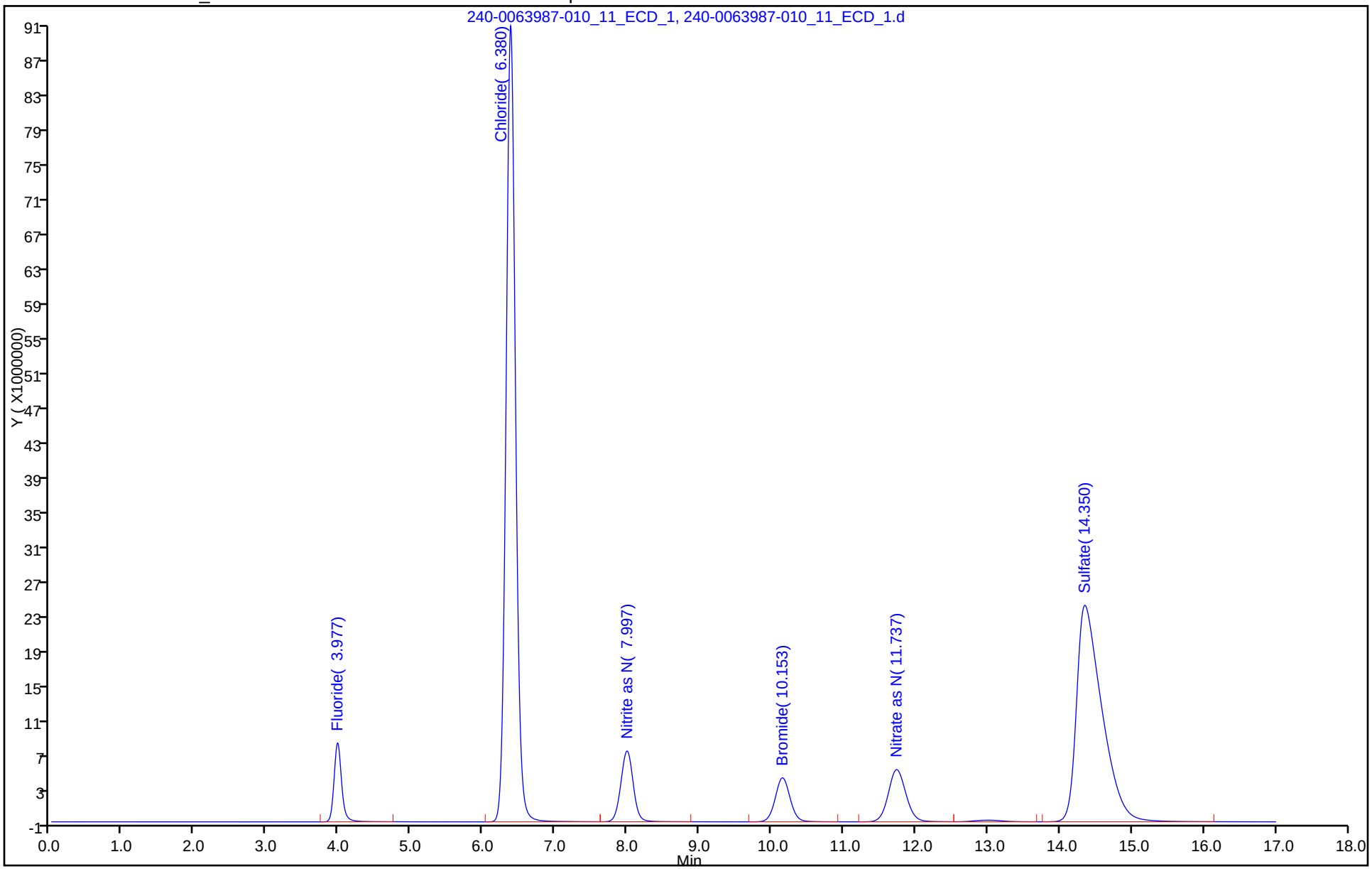
WCICLCS_00603 Amount Added: 5.00 Units: mL

Report Date: 12-Apr-2017 14:42:58 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-010_11_ECD_1.d

Injection Date:	12-Apr-2017 13:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Laboratories
Initial Calibration RRF Report

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Instrument: VERONICA Lims Location: 240
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 12-Apr-2017 14:38:15
No.Compounds:9

Initial Calibration Batches

Ical Batch: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b
Inj Date : 12-Apr-2017 10:47:00, Sublist: chrom-300_Veronica*sub2

Limit Group: WET IC SH ICAL

Detector 1: IC 0001

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	b	M1	M2	Rse	Rsd/R^2
3 Nitrite as N	36048160	38191028	38767746	38982032	39486618	38621169	38063022	37500330	36988390		38072055		2.8	Avg 2.8
5 Nitrate as N	38632180	38184176	38631716	39100351	40424136	40207633	40161148	40298206	40579654		39579911		2.4	Avg 2.4

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-010_11_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2017 13:48:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-010
Misc. Info.: icv
Operator ID: Instrument ID: VERONICA
Sublist:

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:38:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.977	3.977	0.000	66306402	NC	NC	
2 Chloride	6.380	6.380	0.000	833613371	NC	NC	
3 Nitrite as N	7.997	7.997	0.000	96588042	2.50	2.54	
4 Bromide	10.153	10.157	-0.004	72105141	NC	NC	
5 Nitrate as N	11.737	11.743	-0.006	101460262	2.50	2.56	
6 Sulfate	14.350	14.350	0.000	603134604	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

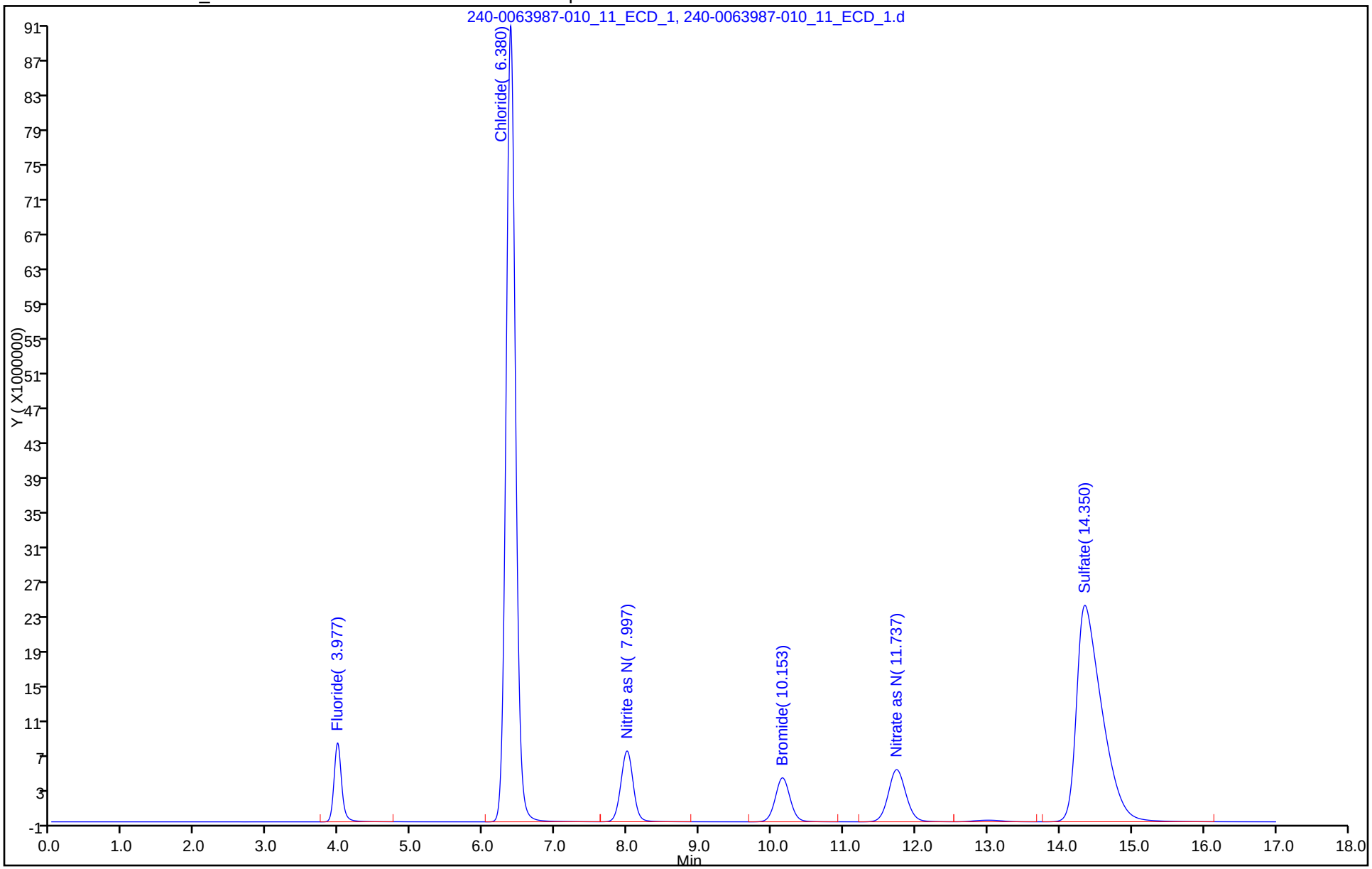
WCICLCS_00603 Amount Added: 5.00 Units: mL

Report Date: 12-Apr-2017 14:42:58 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-010_11_ECD_1.d

Injection Date:	12-Apr-2017 13:48:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-011_12_ECD_1.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 12-Apr-2017 14:08:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-011
Misc. Info.: icb
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:42:28

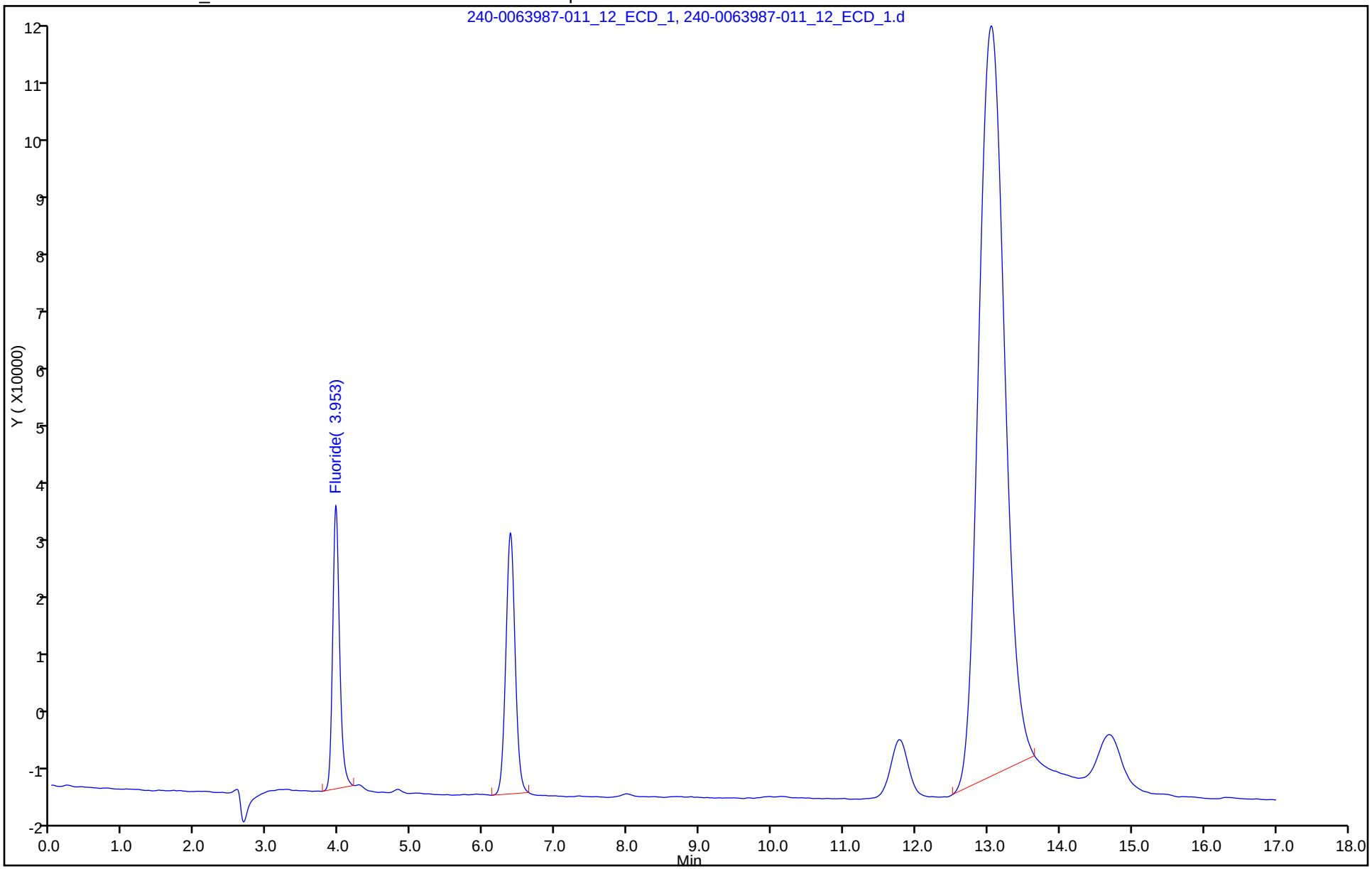
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.953	3.977	-0.024	305440		0.0123	
	3 Nitrite as N		7.997				ND	
	4 Bromide		10.157				ND	
	5 Nitrate as N		11.743				ND	
	6 Sulfate		14.350				ND	
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

Report Date: 12-Apr-2017 14:42:59 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-011_12_ECD_1.d

Injection Date:	12-Apr-2017 14:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	11
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-011_12_ECD_1.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 12-Apr-2017 14:08:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0063987-011
Misc. Info.: icb
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 12-Apr-2017 14:42:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK033

First Level Reviewer: nollel Date: 12-Apr-2017 14:42:28

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.953	3.977	-0.024	305440		NC	
2	Chloride	6.377	6.380	-0.003	378413		NC	
3	Nitrite as N		7.997				ND	
4	Bromide		10.157				ND	
5	Nitrate as N		11.743				ND	
6	Sulfate		14.350				ND	
S 7	Nitrate Nitrite as N		0.000				ND	
10	Nitrite as NO2		0.000				ND	
11	Nitrate as NO3		0.000				ND	

QC Flag Legend

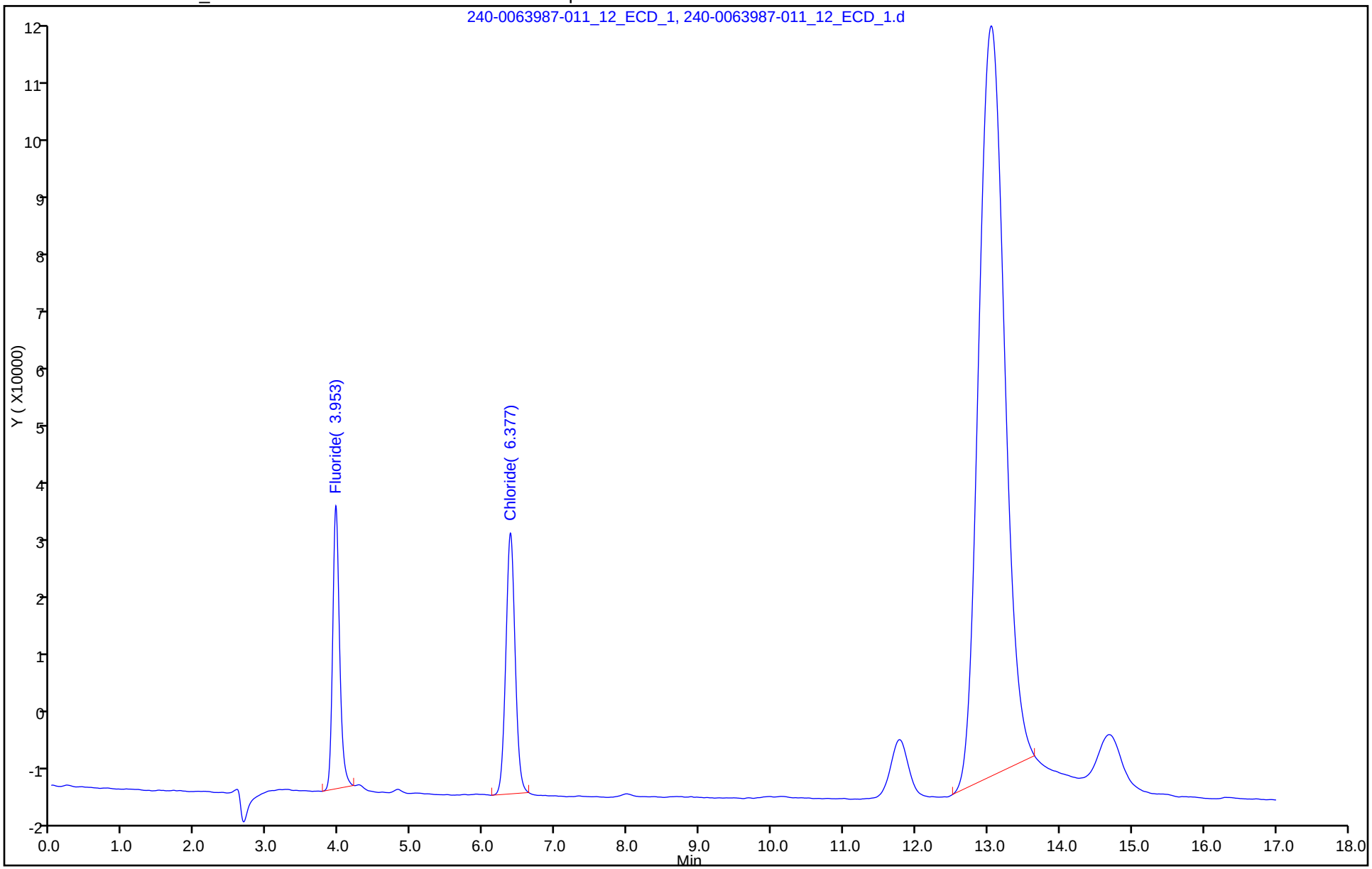
Processing Flags
NC - Not Calibrated

Report Date: 12-Apr-2017 14:42:59 Chrom Revision: 2.2 22-Mar-2017 08:36:42

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-011_12_ECD_1.d

Injection Date:	12-Apr-2017 14:08:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	11
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-001_02_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 07-Jul-2017 12:20:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-001
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.910	3.910	0.000	64333809	NC	NC	
	2 Chloride	6.107	6.107	0.000	828125948	NC	NC	
	3 Nitrite as N	7.567	7.567	0.000	94407232	2.50	2.48	
	4 Bromide	9.477	9.477	0.000	69803377	NC	NC	
	5 Nitrate as N	10.897	10.897	0.000	97932015	2.50	2.47	
	6 Sulfate	13.237	13.237	0.000	600844306	NC	NC	
S	7 Nitrate Nitrite as N						4.95	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

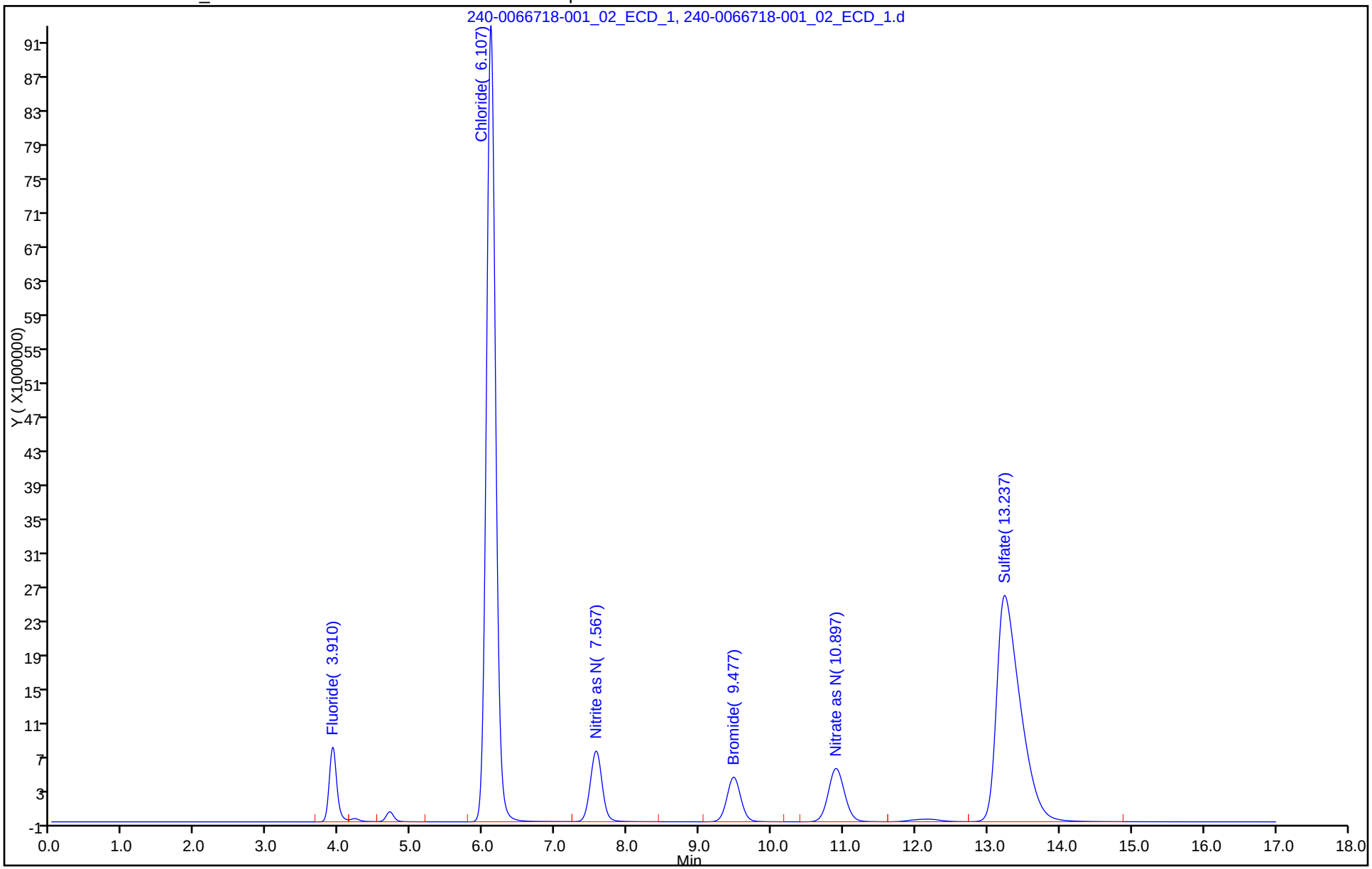
WCICCCV_00775 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:41 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-001_02_ECD_1.d

Injection Date:	07-Jul-2017 12:20:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-001_02_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 07-Jul-2017 12:20:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-001
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride	3.910	3.910	0.000	64333809	2.50	2.59	
	2 Chloride	6.107	6.107	0.000	828125948	50.0	50.5	
	3 Nitrite as N	7.567	7.567	0.000	94407232	2.50	2.48	
	4 Bromide	9.477	9.477	0.000	69803377	10.0	10.0	
	5 Nitrate as N	10.897	10.897	0.000	97932015	2.50	2.47	
	6 Sulfate	13.237	13.237	0.000	600844306	50.0	51.6	
S	7 Nitrate Nitrite as N						4.95	

Reagents:

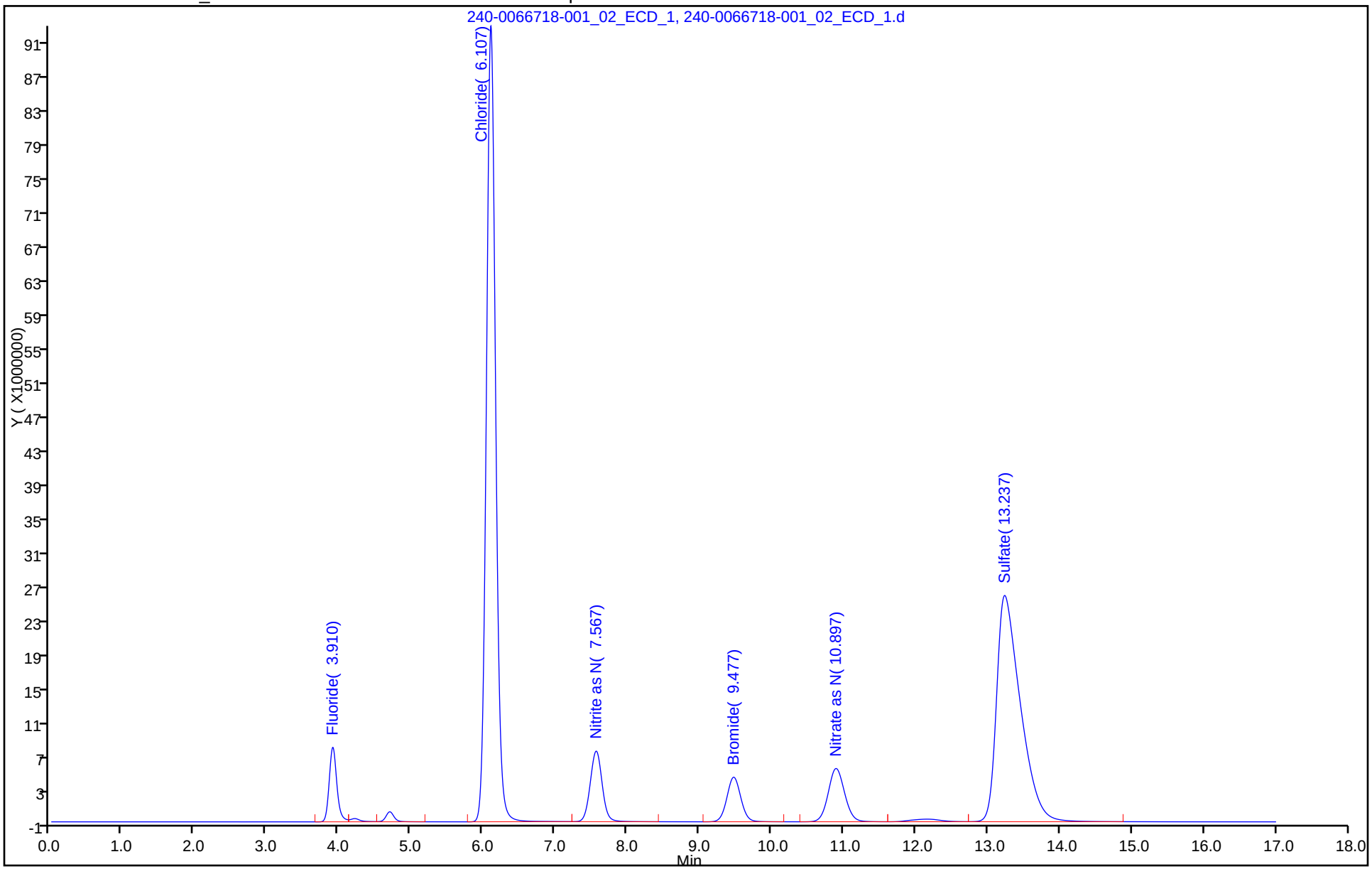
WCICCCV_00775 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:41 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-001_02_ECD_1.d

Injection Date:	07-Jul-2017 12:20:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-002_03_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 07-Jul-2017 12:40:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-002
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.910				ND	
	2 Chloride	6.093	6.107	-0.014	819968			NC
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.477				ND	
	5 Nitrate as N		10.897				ND	
	6 Sulfate	13.493	13.237	0.256	282807			NC
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

QC Flag Legend

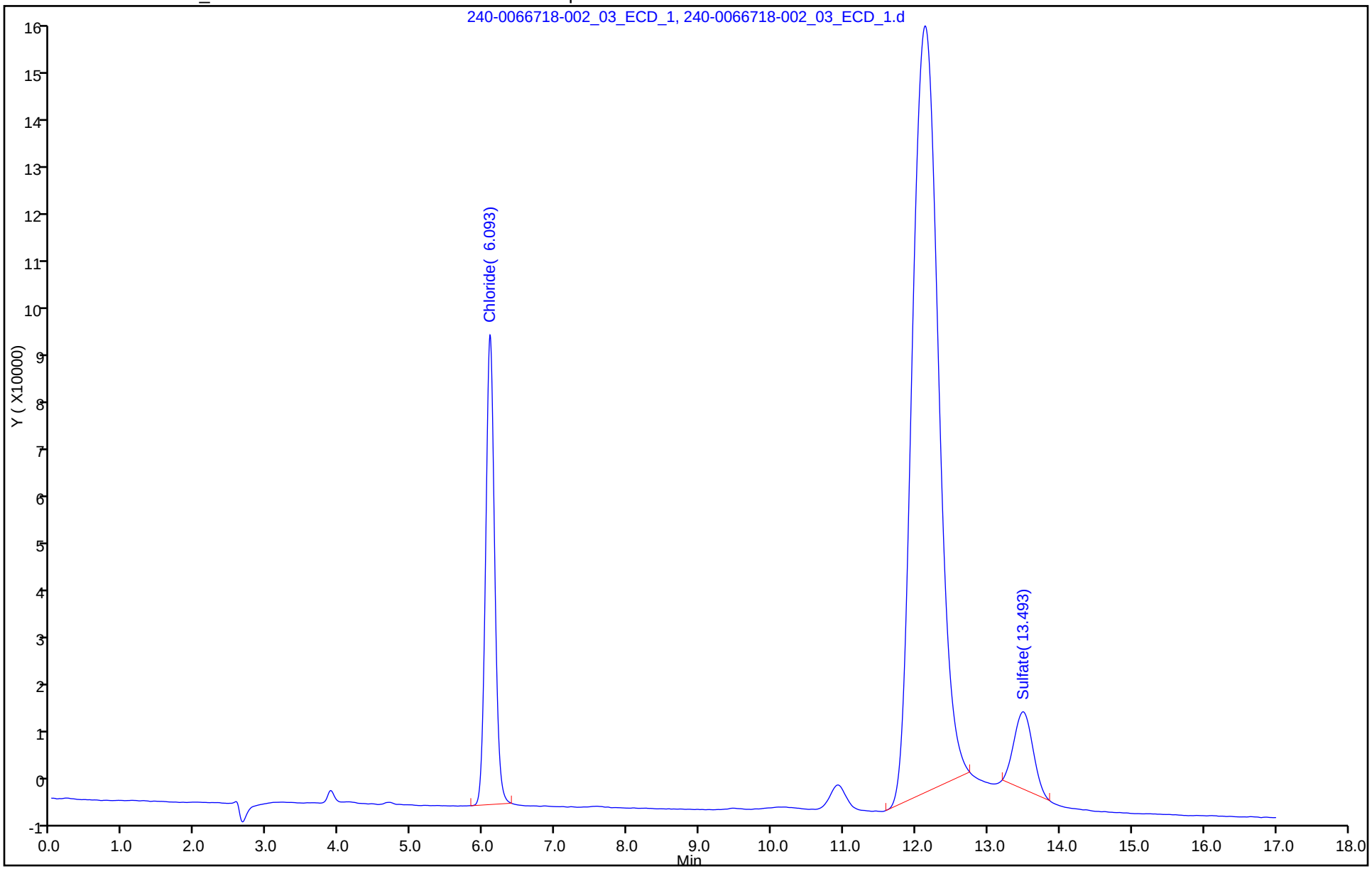
Processing Flags
NC - Not Calibrated

Report Date: 08-Jul-2017 13:26:42 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-002_03_ECD_1.d

Injection Date:	07-Jul-2017 12:40:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-002_03_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 07-Jul-2017 12:40:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-002
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

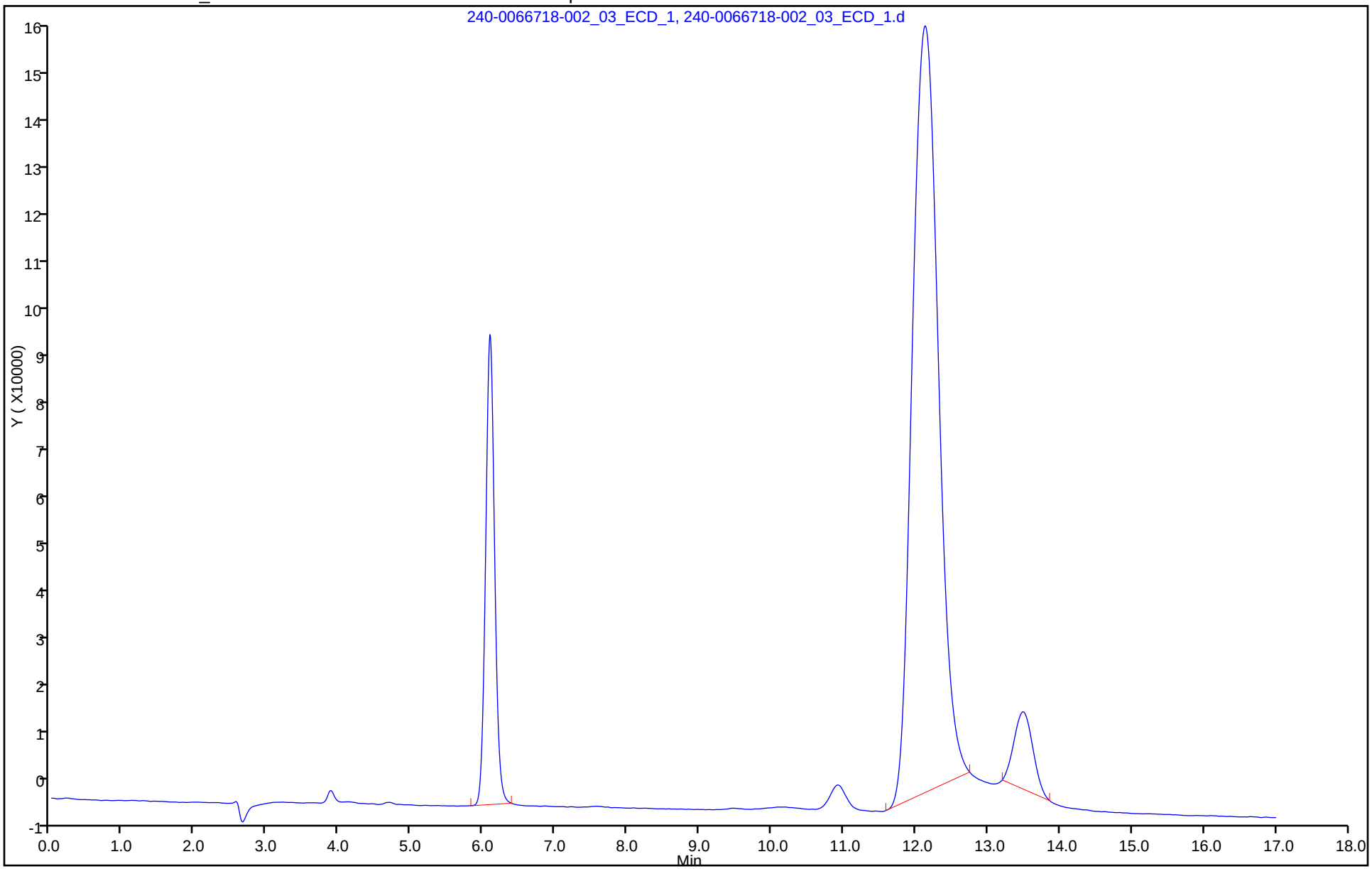
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.910				ND	
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.477				ND	
	5 Nitrate as N		10.897				ND	
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

Report Date: 08-Jul-2017 13:26:42 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-002_03_ECD_1.d

Injection Date:	07-Jul-2017 12:40:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-003_04_ECD_1.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 07-Jul-2017 13:00:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-003
Misc. Info.: MB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.910				ND	
	2 Chloride	6.103	6.107	-0.004	807491			NC
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.477				ND	
	5 Nitrate as N		10.897				ND	
	6 Sulfate	13.490	13.237	0.253	270281			NC
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

QC Flag Legend

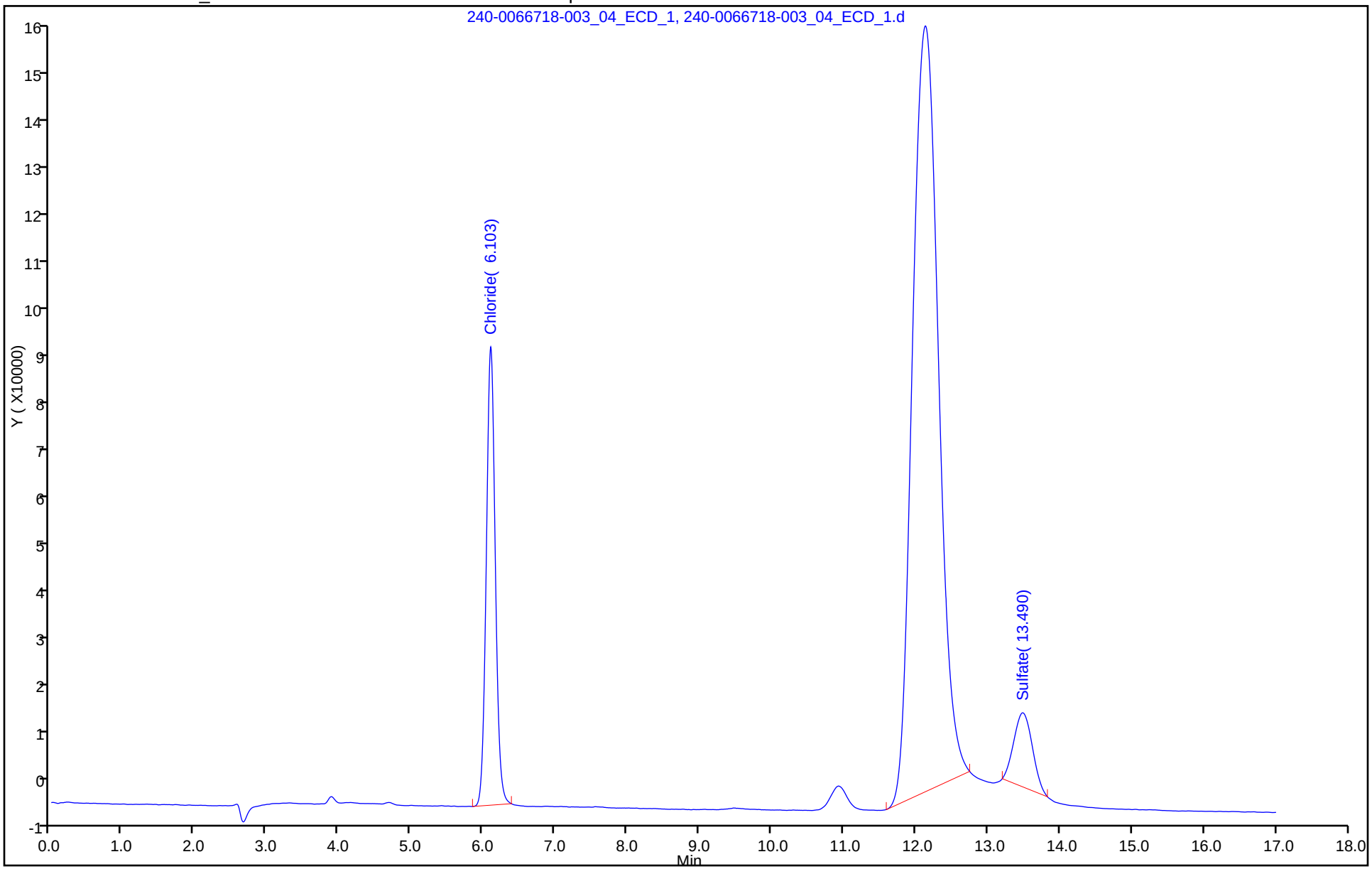
Processing Flags
NC - Not Calibrated

Report Date: 08-Jul-2017 13:26:42 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-003_04_ECD_1.d

Injection Date:	07-Jul-2017 13:00:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-003_04_ECD_1.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 07-Jul-2017 13:00:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-003
Misc. Info.: MB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

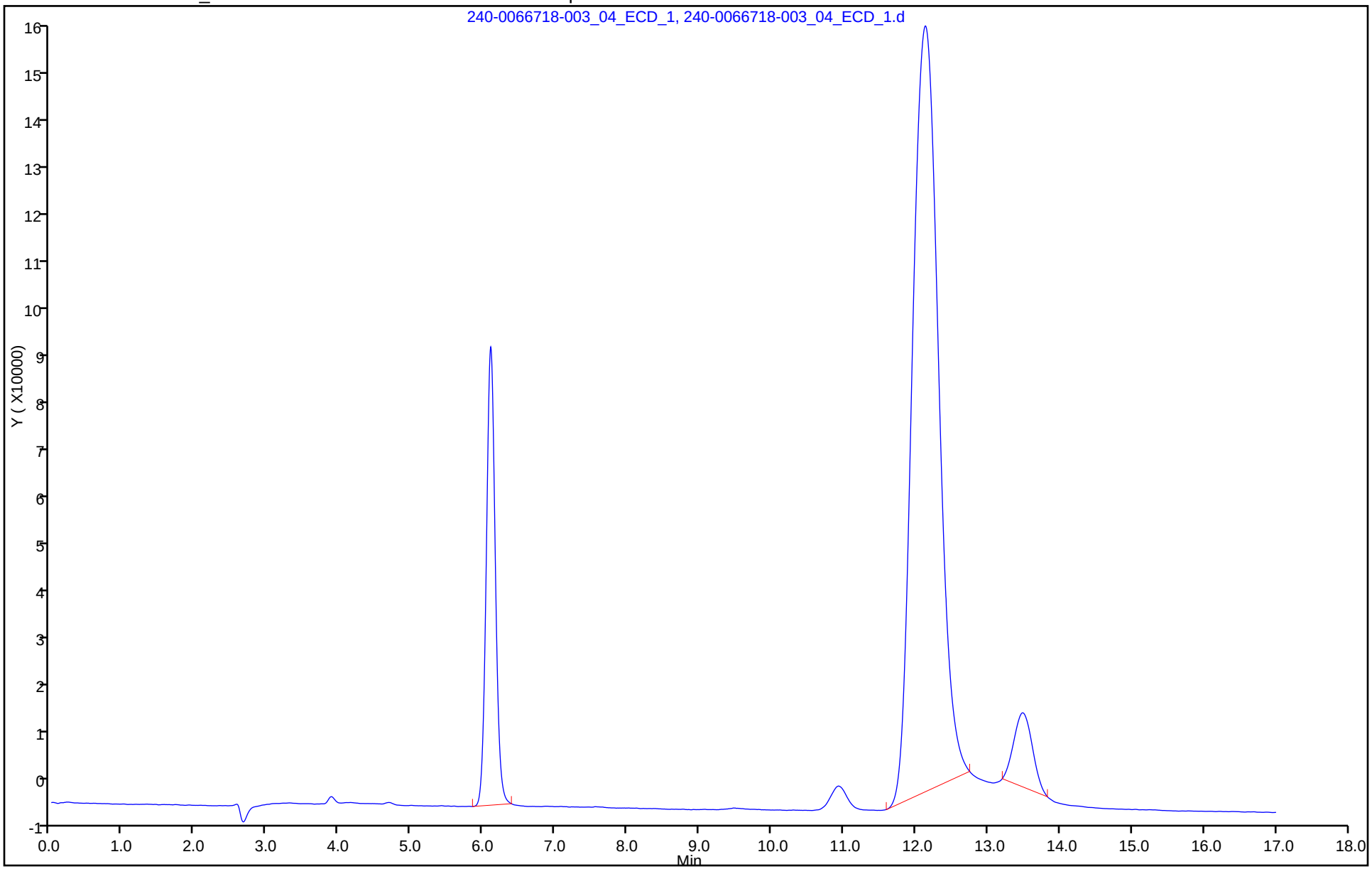
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.910				ND	
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.477				ND	
	5 Nitrate as N		10.897				ND	
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

Report Date: 08-Jul-2017 13:26:42 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-003_04_ECD_1.d

Injection Date:	07-Jul-2017 13:00:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-004_05_ECD_1.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 07-Jul-2017 13:20:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-004
Misc. Info.: LCS
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.910	3.910	0.000	66556812	NC	NC	
2 Chloride	6.103	6.107	-0.004	833964013	NC	NC	
3 Nitrite as N	7.567	7.567	0.000	93889764	2.50	2.47	
4 Bromide	9.473	9.477	-0.004	70980706	NC	NC	
5 Nitrate as N	10.893	10.897	-0.004	99675121	2.50	2.52	
6 Sulfate	13.230	13.237	-0.007	606723187	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

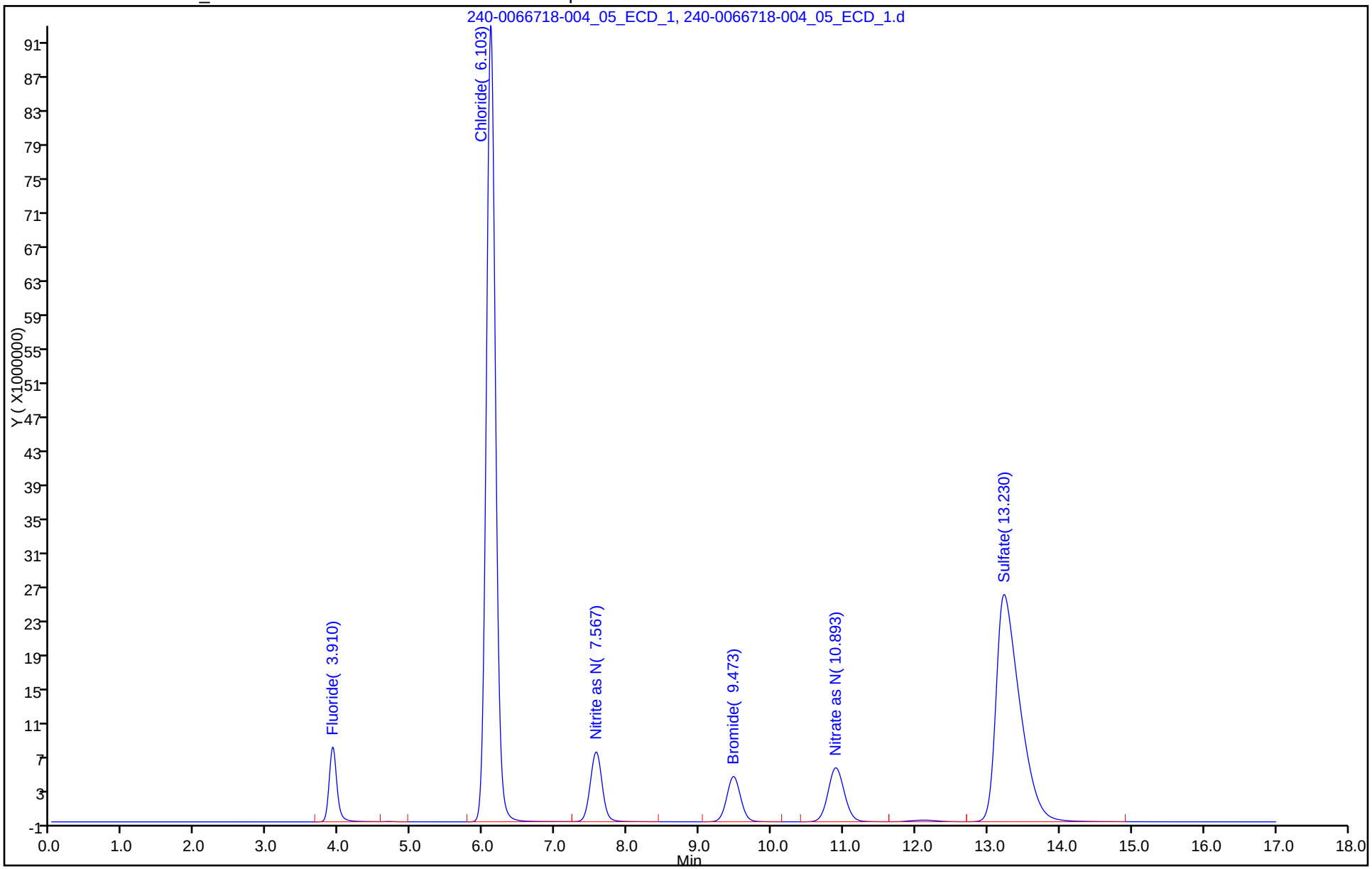
WCICLCS_00613 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:43 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-004_05_ECD_1.d

Injection Date:	07-Jul-2017 13:20:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-004_05_ECD_1.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 07-Jul-2017 13:20:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-004
Misc. Info.: LCS
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.910	3.910	0.000	66556812	2.50	2.67	
2 Chloride	6.103	6.107	-0.004	833964013	50.0	50.9	
3 Nitrite as N	7.567	7.567	0.000	93889764	2.50	2.47	
4 Bromide	9.473	9.477	-0.004	70980706	10.0	10.2	
5 Nitrate as N	10.893	10.897	-0.004	99675121	2.50	2.52	
6 Sulfate	13.230	13.237	-0.007	606723187	50.0	52.1	

Reagents:

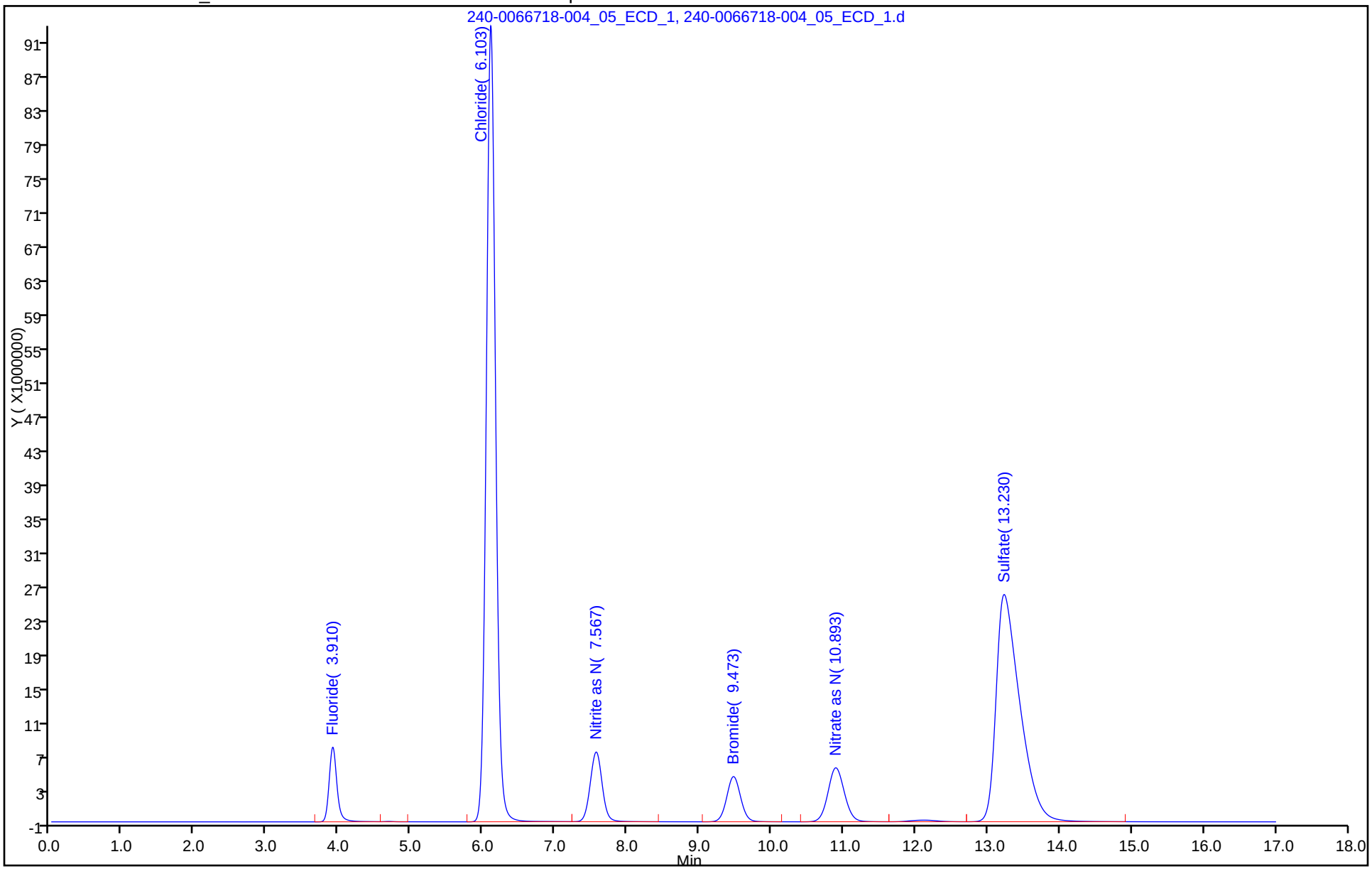
WCICLCS_00613 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:43 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-004_05_ECD_1.d

Injection Date:	07-Jul-2017 13:20:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-006_07_ECD_1.d
Lims ID: 240-81959-B-1 MS
Client ID:
Sample Type: MS
Inject. Date: 07-Jul-2017 14:00:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-006
Misc. Info.: 240-81959-B-1 MS
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.903	3.910	-0.007	78698957	NC	NC	
2	Chloride	6.120	6.107	0.013	5688059962	NC	NC	
3	Nitrite as N	7.560	7.567	-0.007	102562147	2.50	2.69	
4	Bromide	9.423	9.477	-0.054	90567082	NC	NC	
5	Nitrate as N	10.653	10.897	-0.244	369143352	2.50	9.33	
6	Sulfate	12.650	13.237	-0.587	3021601407	NC	NC	
S 7	Nitrate Nitrite as N						12.0	
10	Nitrite as NO2		0.000				ND	
11	Nitrate as NO3		0.000				ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

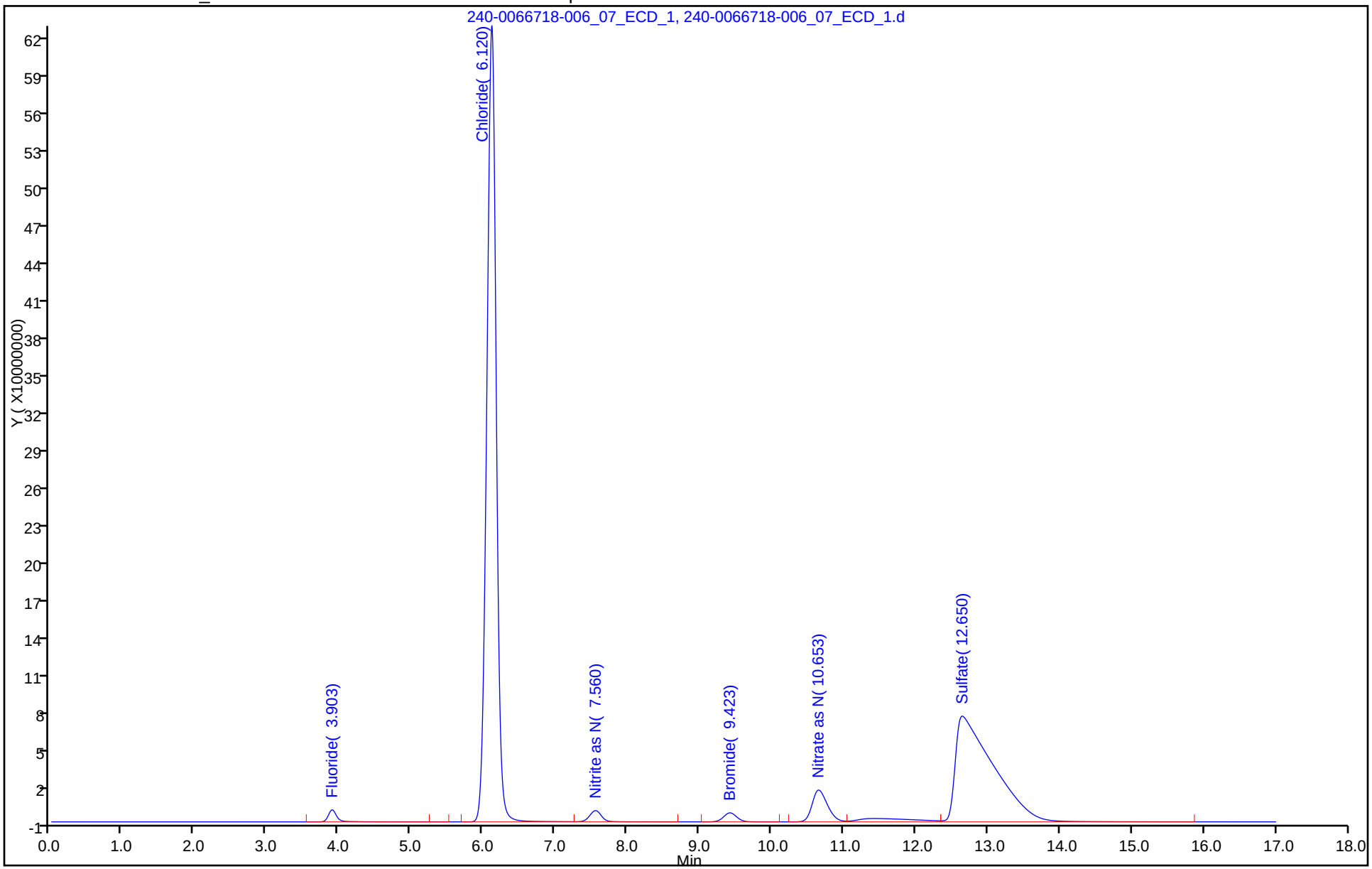
WCICSOLNB1_00015 Amount Added: 0.10 Units: mL
WCICSOLNA1_00016 Amount Added: 0.10 Units: mL

Report Date: 08-Jul-2017 13:26:45 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-006_07_ECD_1.d

Injection Date:	07-Jul-2017 14:00:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81959-B-1 MS			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-007_08_ECD_1.d
Lims ID: 240-81959-B-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 07-Jul-2017 14:21:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-007
Misc. Info.: 240-81959-B-1 MSD
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.890	3.910	-0.020	74143496	NC	NC	
2	Chloride	6.107	6.107	0.000	5660388325	NC	NC	
3	Nitrite as N	7.547	7.567	-0.020	97764504	2.50	2.57	
4	Bromide	9.410	9.477	-0.067	87945838	NC	NC	
5	Nitrate as N	10.647	10.897	-0.250	365910171	2.50	9.24	
6	Sulfate	12.650	13.237	-0.587	3000083613	NC	NC	
S 7	Nitrate Nitrite as N						11.8	
10	Nitrite as NO2		0.000				ND	
11	Nitrate as NO3		0.000				ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

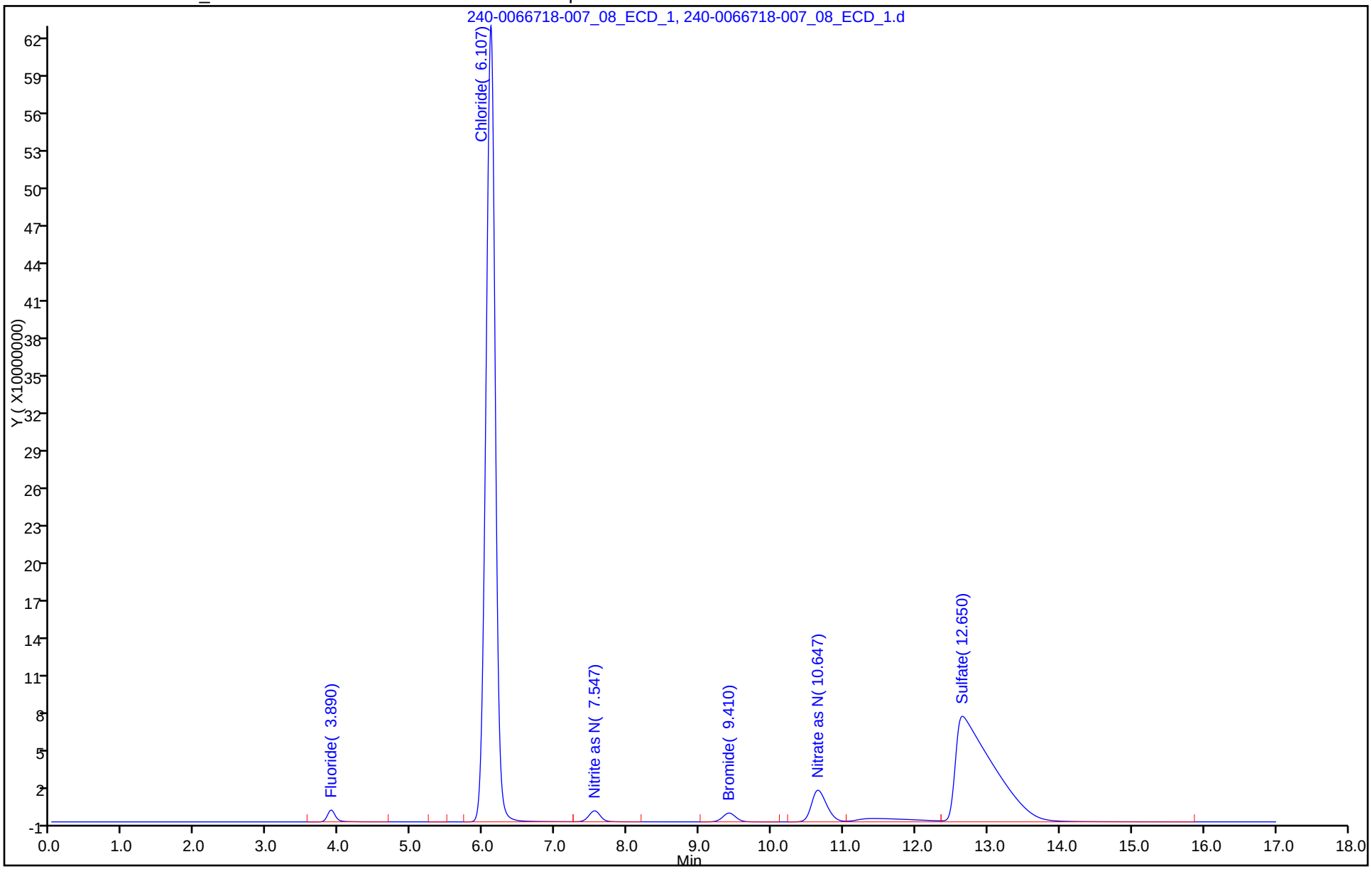
WCICSOLNB1_00015 Amount Added: 0.10 Units: mL
WCICSOLNA1_00016 Amount Added: 0.10 Units: mL

Report Date: 08-Jul-2017 13:26:46 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-007_08_ECD_1.d

Injection Date:	07-Jul-2017 14:21:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81959-B-1 MSD			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-009_10_ECD_1.d
Lims ID: 240-81987-G-1
Client ID: SEMW-9S-070617
Sample Type: Client
Inject. Date: 07-Jul-2017 15:19:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-009
Misc. Info.: 240-81987-G-1
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N	7.537	7.567	-0.030	1192997	0.0313	
4 Bromide	9.460	9.477	-0.017	1376366	NC	
5 Nitrate as N	10.837	10.897	-0.060	4805476	0.1214	
6 Sulfate	13.057	13.237	-0.180	1026610611	NC	

QC Flag Legend

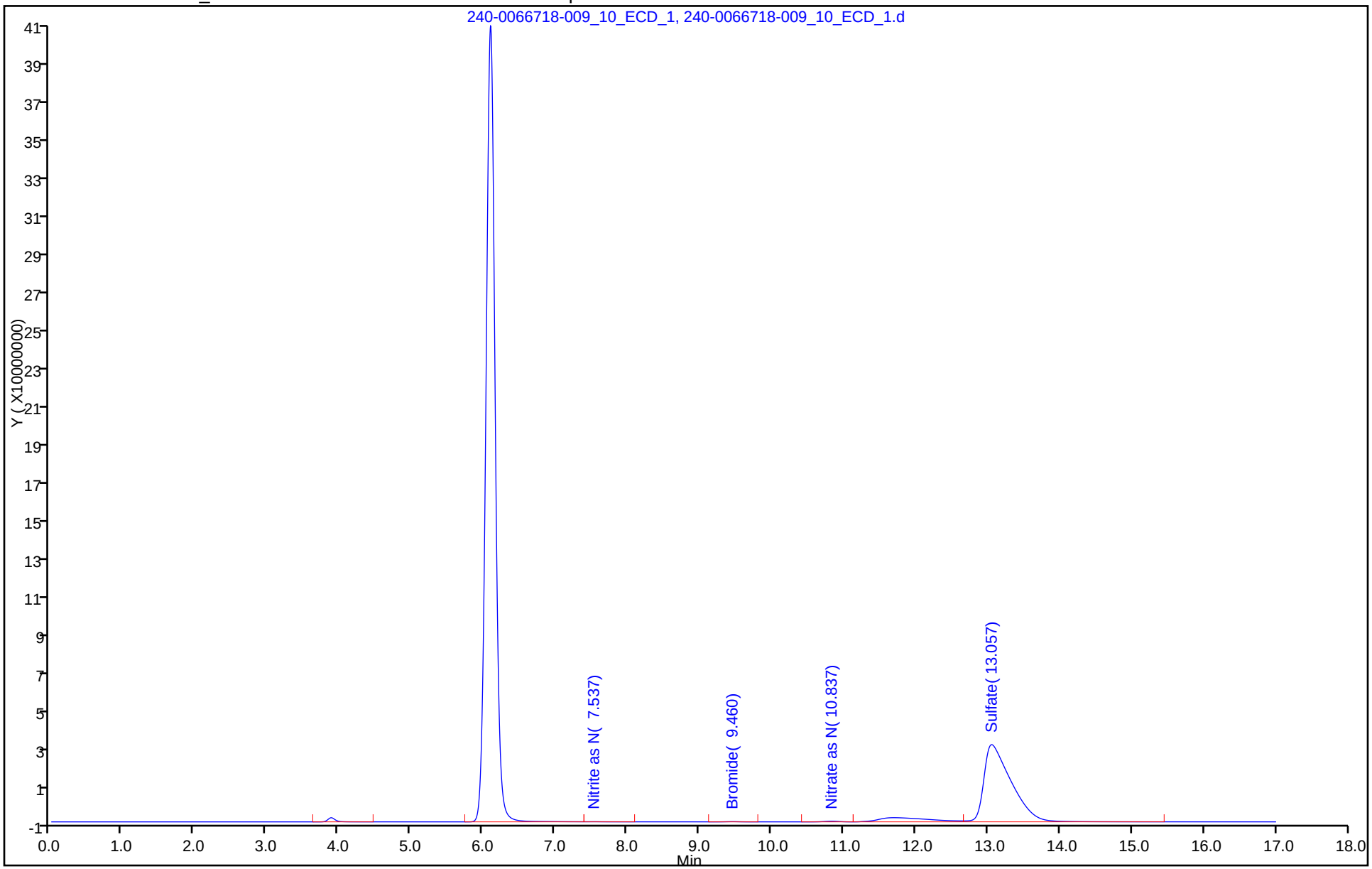
Processing Flags
NC - Not Calibrated

Report Date: 08-Jul-2017 13:26:47 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-009_10_ECD_1.d

Injection Date:	07-Jul-2017 15:19:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81987-G-1	Lab Sample ID:	240-81987-1	Worklist Smp#:	9
Client ID:	SEMW-9S-070617				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-009_10_ECD_1.d
Lims ID: 240-81987-G-1
Client ID: SEMW-9S-070617
Sample Type: Client
Inject. Date: 07-Jul-2017 15:19:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-009
Misc. Info.: 240-81987-G-1
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

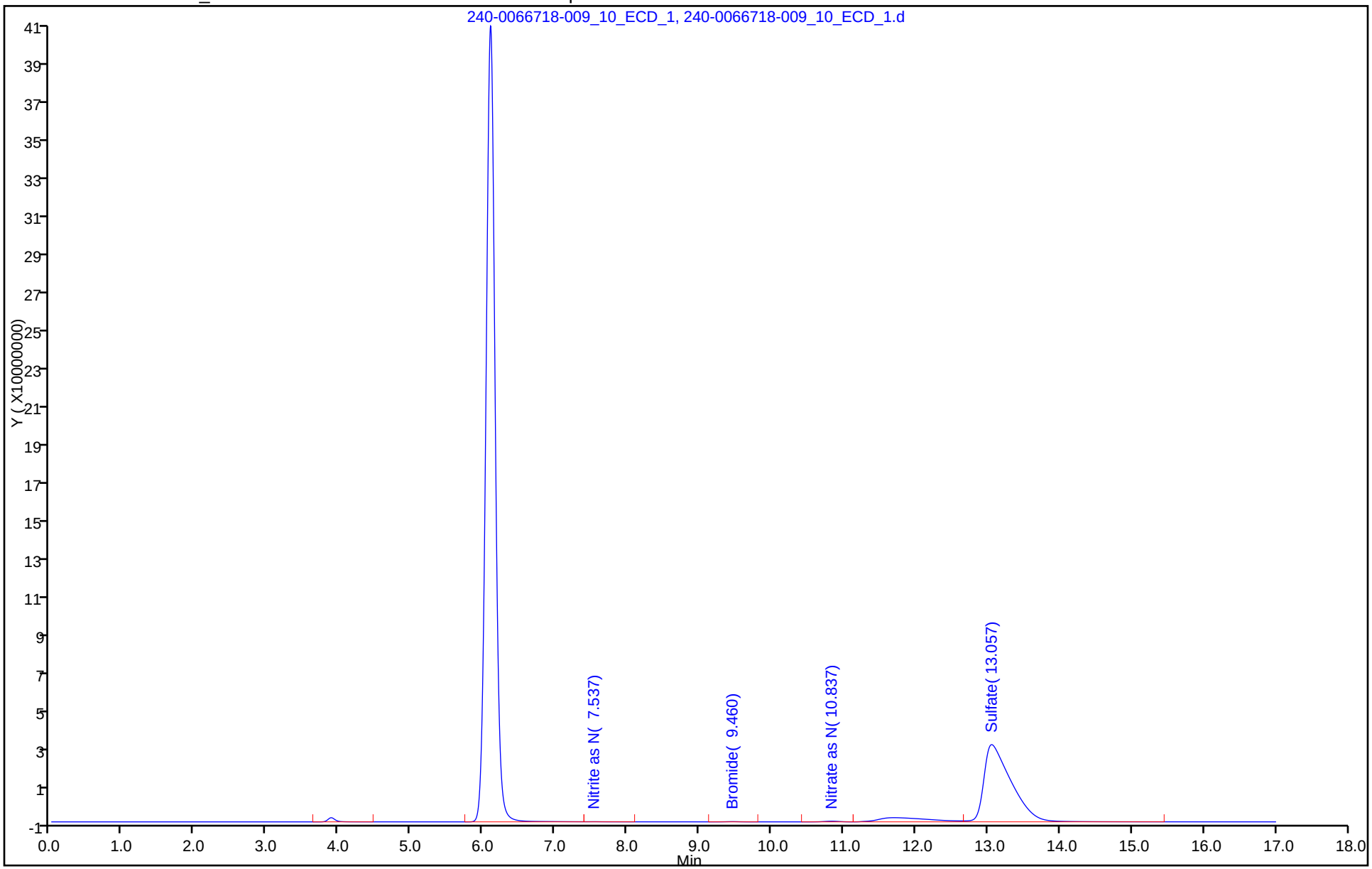
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N	7.537	7.567	-0.030	1192997	0.0313	
4 Bromide	9.460	9.477	-0.017	1376366	0.1981	
5 Nitrate as N	10.837	10.897	-0.060	4805476	0.1214	
6 Sulfate	13.057	13.237	-0.180	1026610611	88.1	

Report Date: 08-Jul-2017 13:26:47 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-009_10_ECD_1.d

Injection Date:	07-Jul-2017 15:19:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81987-G-1	Lab Sample ID:	240-81987-1	Worklist Smp#:	9
Client ID:	SEMW-9S-070617				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-011_12_ECD_1.d
Lims ID: 240-81987-J-2
Client ID: SEMW-9I-070617
Sample Type: Client
Inject. Date: 07-Jul-2017 15:59:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-011
Misc. Info.: 240-81987-J-2
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N	7.567	7.567	0.000	3079729	0.0809	
4 Bromide	9.483	9.477	0.006	1651999	NC	
5 Nitrate as N	10.883	10.897	-0.014	7295641	0.1843	
6 Sulfate	13.410	13.237	0.173	95729804	NC	

QC Flag Legend

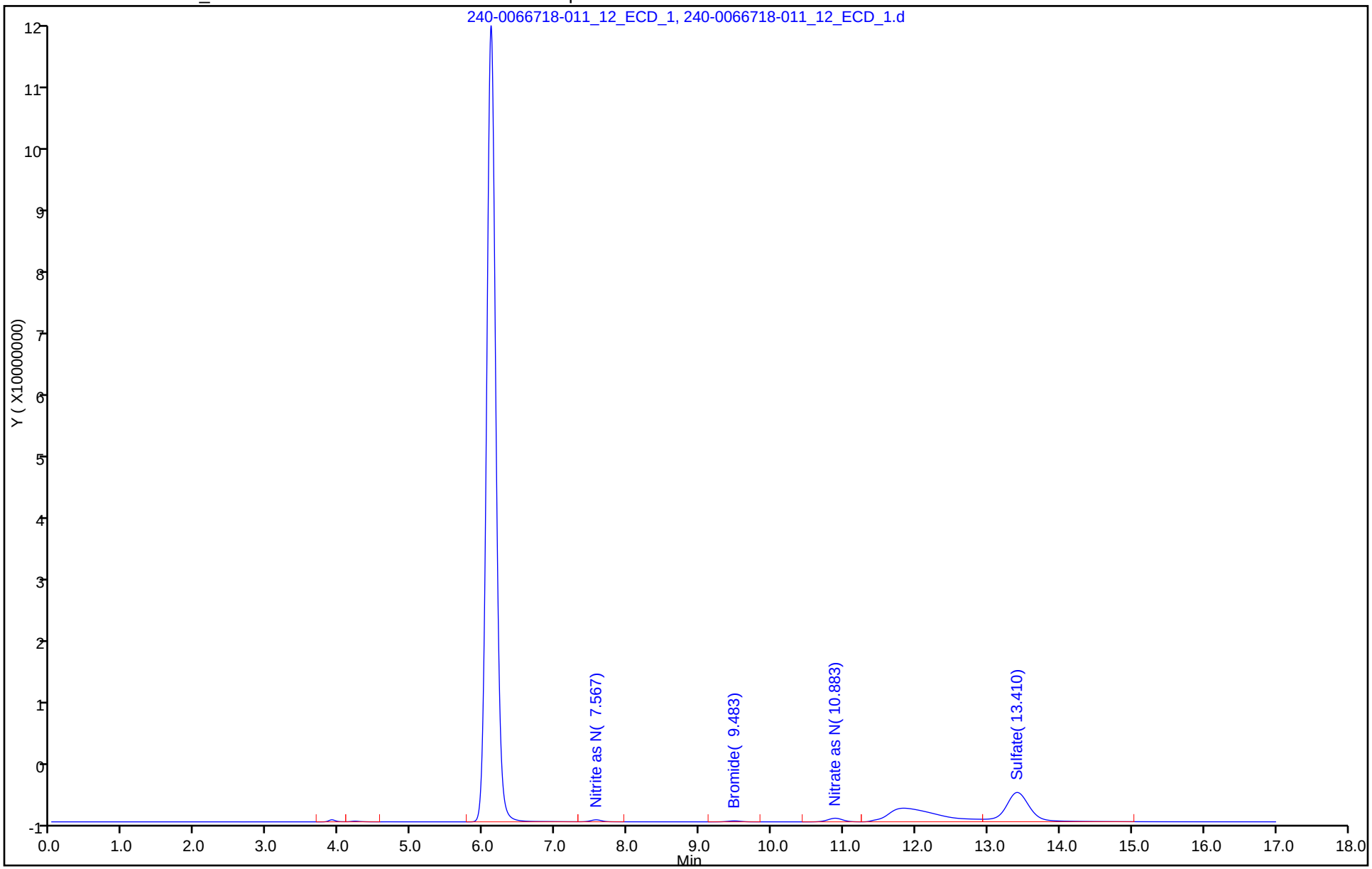
Processing Flags
NC - Not Calibrated

Report Date: 08-Jul-2017 13:26:49 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-011_12_ECD_1.d

Injection Date:	07-Jul-2017 15:59:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81987-J-2	Lab Sample ID:	240-81987-2	Worklist Smp#:	11
Client ID:	SEMW-9I-070617				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-011_12_ECD_1.d
Lims ID: 240-81987-J-2
Client ID: SEMW-9I-070617
Sample Type: Client
Inject. Date: 07-Jul-2017 15:59:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-011
Misc. Info.: 240-81987-J-2
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:40 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

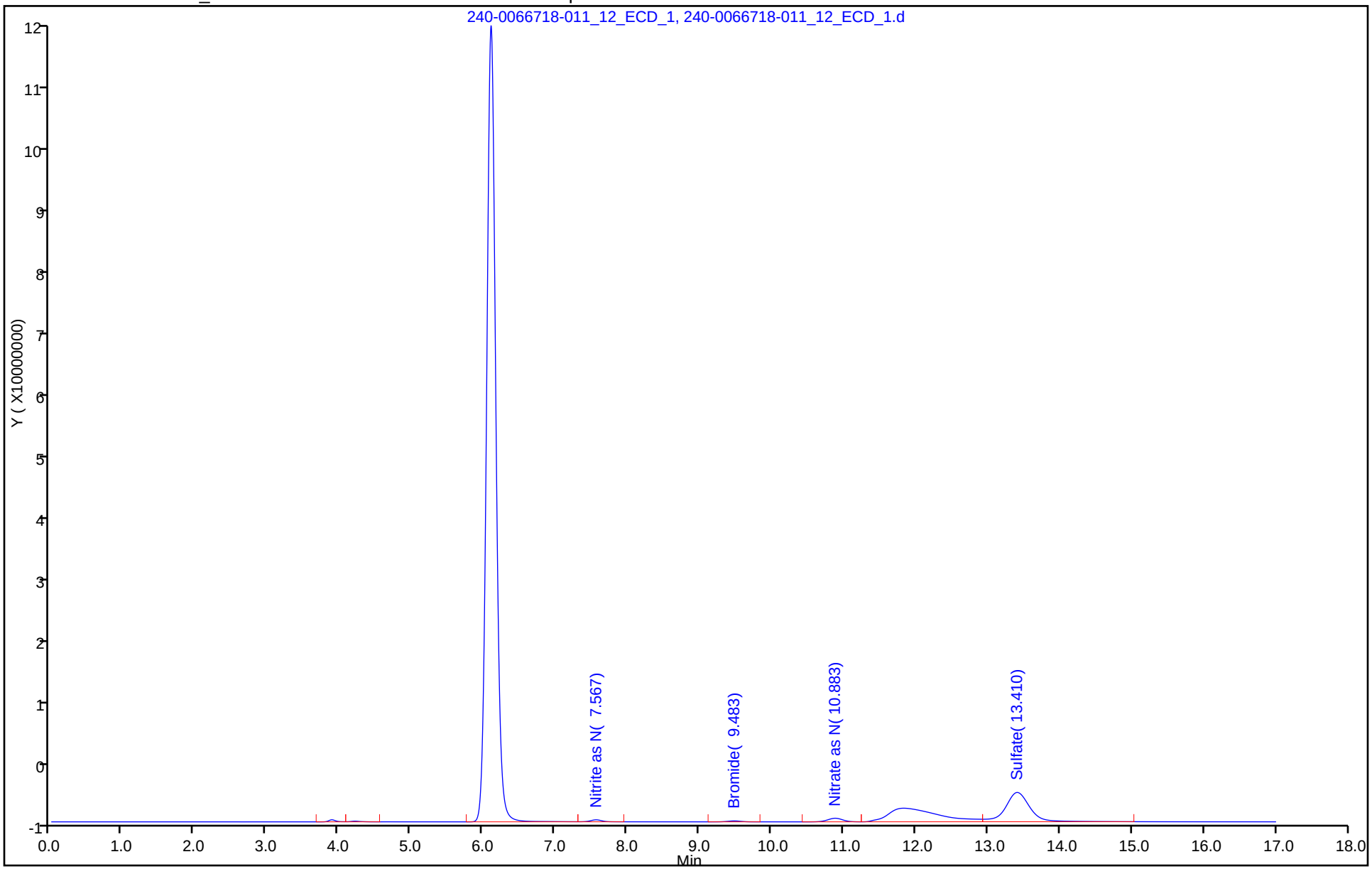
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
3 Nitrite as N	7.567	7.567	0.000	3079729	0.0809	
4 Bromide	9.483	9.477	0.006	1651999	0.2378	
5 Nitrate as N	10.883	10.897	-0.014	7295641	0.1843	
6 Sulfate	13.410	13.237	0.173	95729804	8.22	

Report Date: 08-Jul-2017 13:26:49 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-011_12_ECD_1.d

Injection Date:	07-Jul-2017 15:59:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-81987-J-2	Lab Sample ID:	240-81987-2	Worklist Smp#:	11
Client ID:	SEMW-9I-070617				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-013_14_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 07-Jul-2017 16:39:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-013
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.913	3.913	0.000	64356970	NC	NC	
2	Chloride	6.107	6.107	0.000	829211646	NC	NC	
3	Nitrite as N	7.567	7.567	0.000	94606964	2.50	2.48	
4	Bromide	9.473	9.473	0.000	69974495	NC	NC	
5	Nitrate as N	10.890	10.890	0.000	97969020	2.50	2.48	
6	Sulfate	13.230	13.230	0.000	601828685	NC	NC	
S 7	Nitrate Nitrite as N						4.96	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

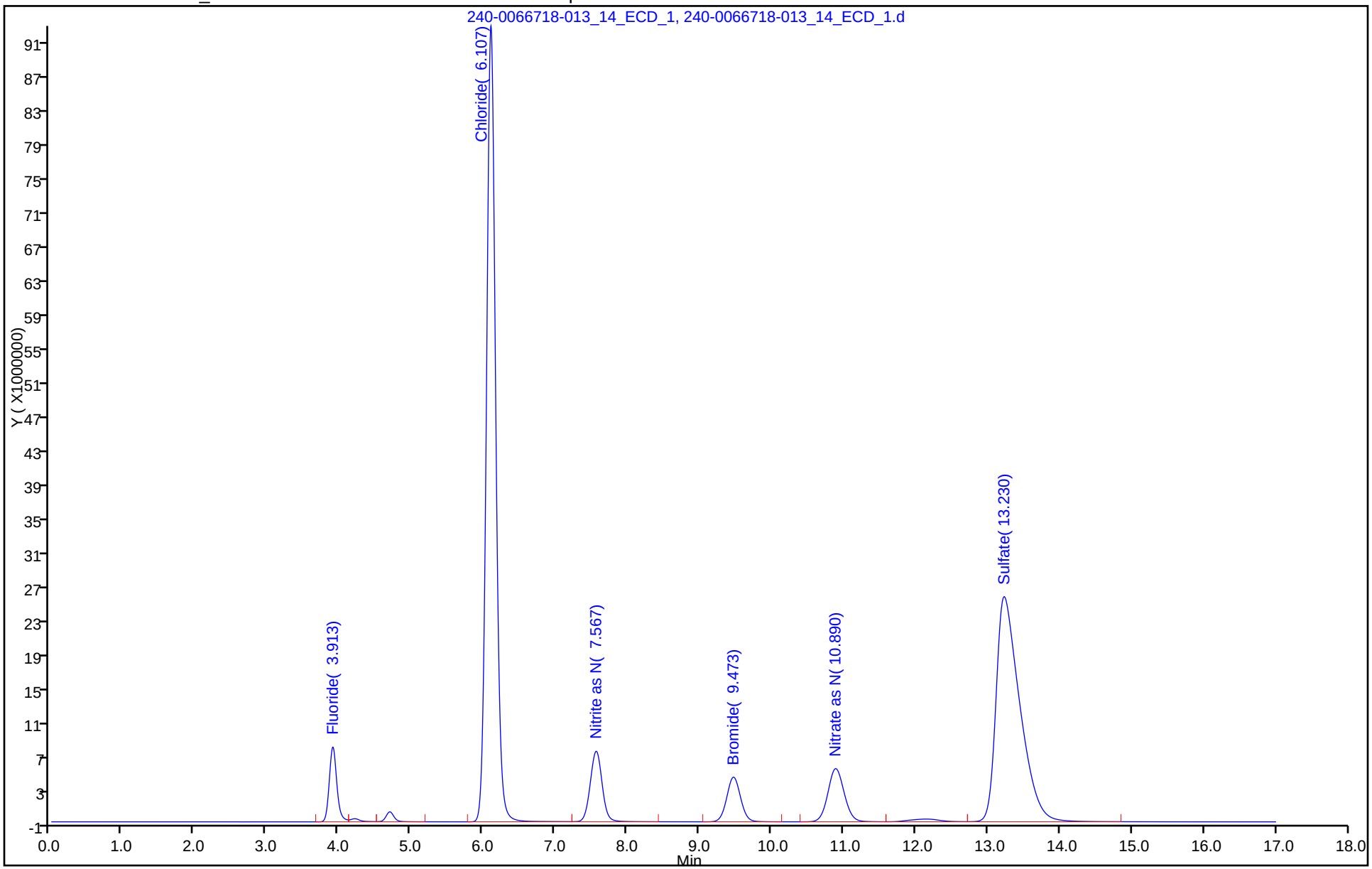
WCICCCV_00775 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-013_14_ECD_1.d

Injection Date:	07-Jul-2017 16:39:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	13
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-013_14_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 07-Jul-2017 16:39:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-013
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.913	3.913	0.000	64356970	2.50	2.59	
2	Chloride	6.107	6.107	0.000	829211646	50.0	50.6	
3	Nitrite as N	7.567	7.567	0.000	94606964	2.50	2.48	
4	Bromide	9.473	9.473	0.000	69974495	10.0	10.1	
5	Nitrate as N	10.890	10.890	0.000	97969020	2.50	2.48	
6	Sulfate	13.230	13.230	0.000	601828685	50.0	51.7	
S 7	Nitrate Nitrite as N						4.96	

Reagents:

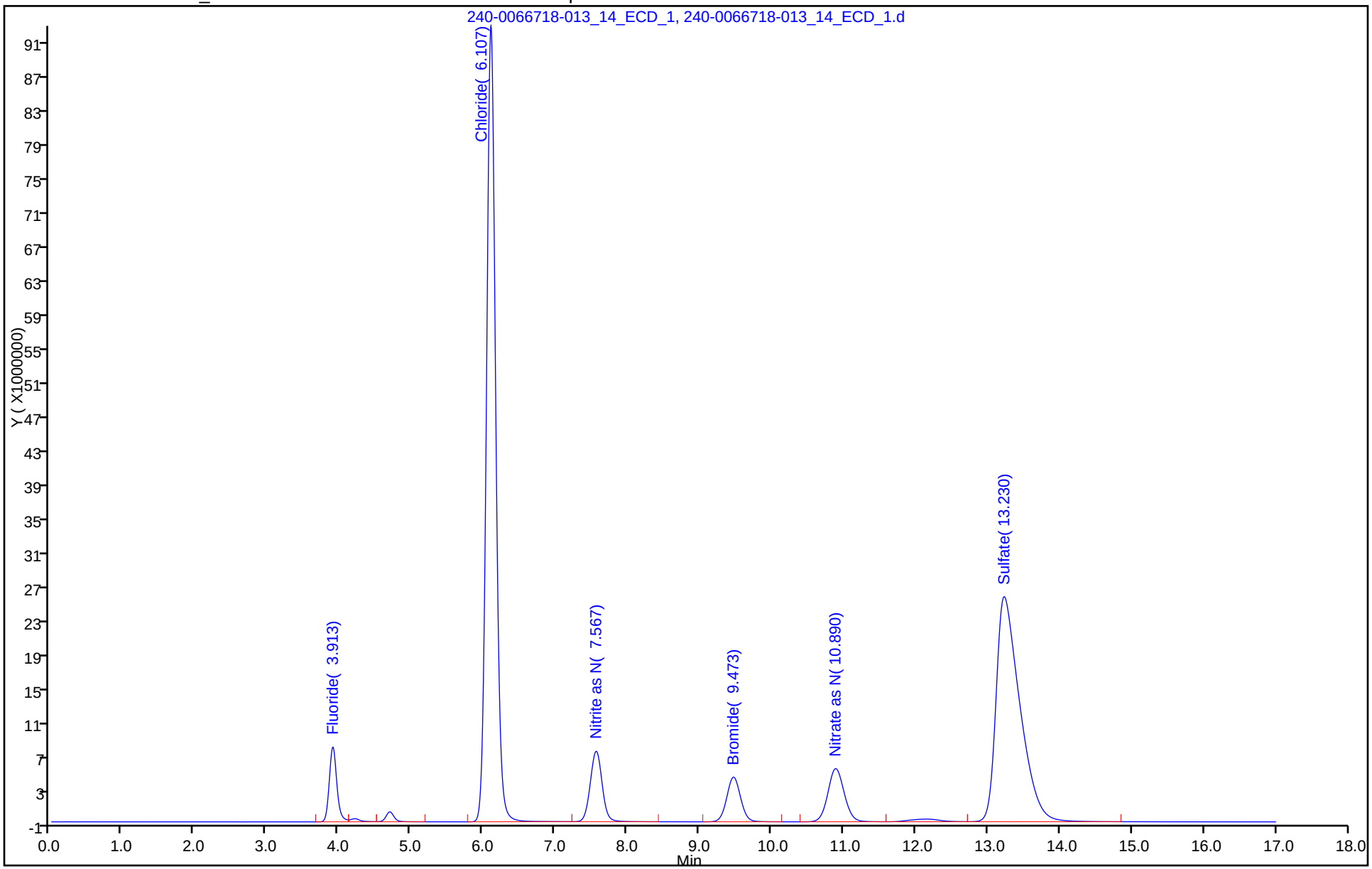
WCICCCV_00775 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:26:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-013_14_ECD_1.d

Injection Date:	07-Jul-2017 16:39:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	13
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-014_15_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 07-Jul-2017 16:59:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-014
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC SH ICAL
Last Update: 08-Jul-2017 13:26:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.913				ND	
	2 Chloride	6.093	6.107	-0.014	876315			NC
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.473				ND	
	5 Nitrate as N		10.890				ND	
	6 Sulfate	13.470	13.230	0.240	351584			NC
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

QC Flag Legend

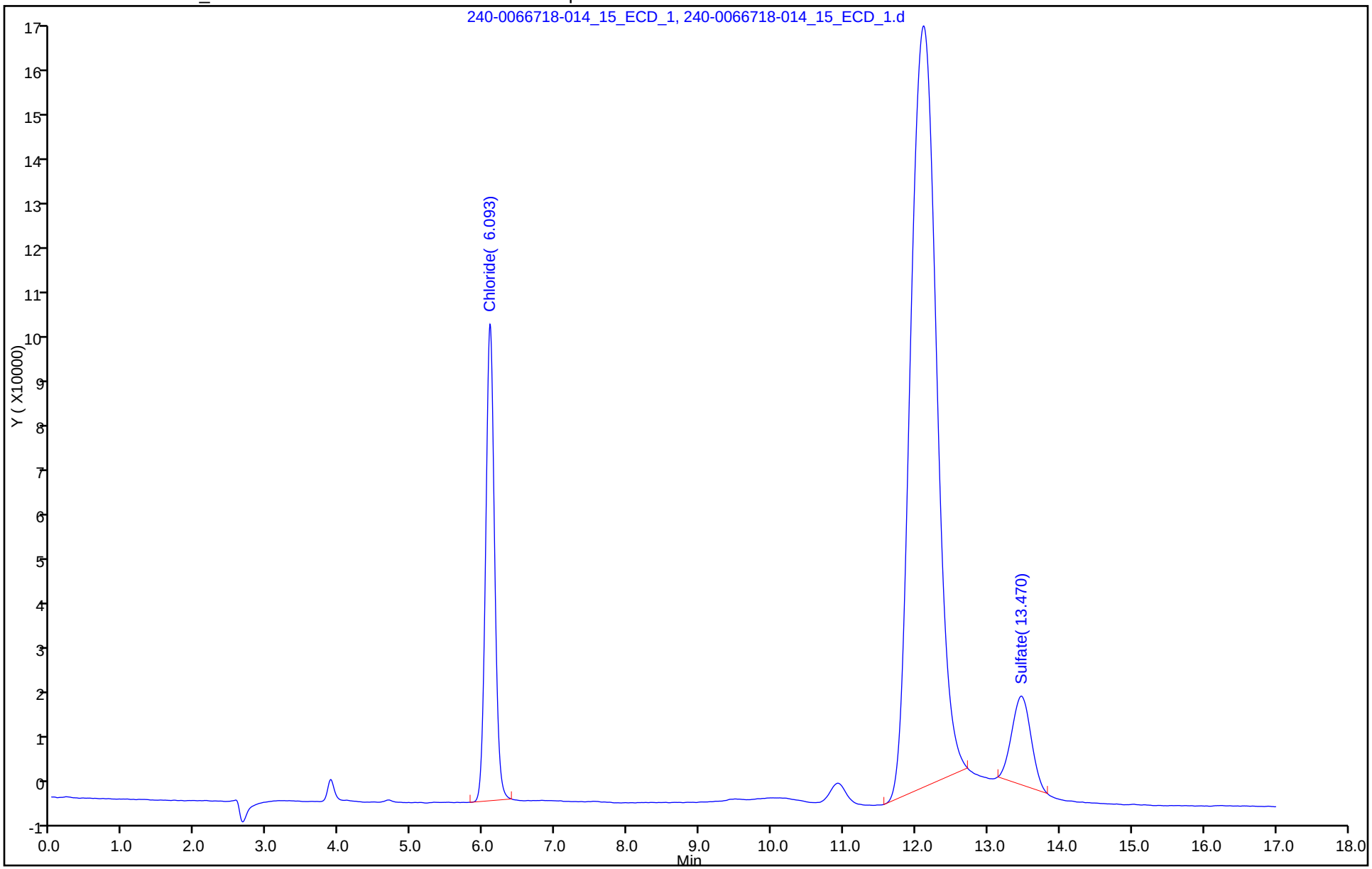
Processing Flags
NC - Not Calibrated

Report Date: 08-Jul-2017 13:26:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-014_15_ECD_1.d

Injection Date:	07-Jul-2017 16:59:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	14
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC SH ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-014_15_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 07-Jul-2017 16:59:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-014
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:50 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

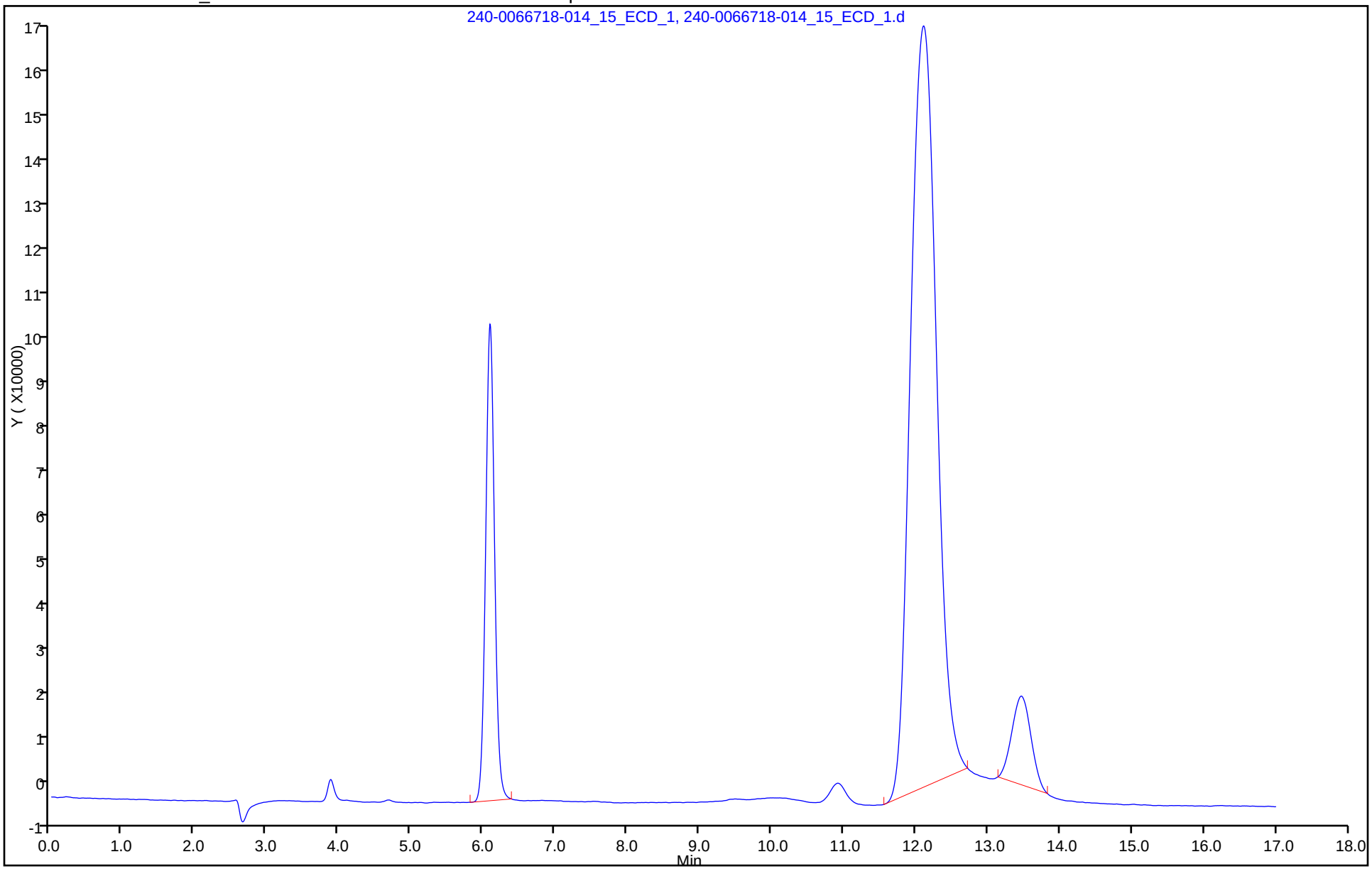
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.913				ND	
	3 Nitrite as N		7.567				ND	
	4 Bromide		9.473				ND	
	5 Nitrate as N		10.890				ND	
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

Report Date: 08-Jul-2017 13:26:51 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-014_15_ECD_1.d

Injection Date:	07-Jul-2017 16:59:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	14
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-033_34_ECD_1.d
Lims ID: 240-80789-F-4 MS
Client ID:
Sample Type: MS
Inject. Date: 07-Jul-2017 23:22:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-033
Misc. Info.: 240-80789-F-4 MS
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

First Level Reviewer: weimerj Date: 08-Jul-2017 13:18:02

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.890	3.910	-0.020	69191476	2.50	2.78	
2	Chloride	6.087	6.107	-0.020	1266745792	50.0	77.2	
3	Nitrite as N	7.543	7.570	-0.027	96330743	2.50	2.53	
4	Bromide	9.377	9.473	-0.096	71866564	10.0	10.3	
5	Nitrate as N	10.573	10.890	-0.317	100311498	2.50	2.53	a
6	Sulfate	12.393	13.210	-0.817	4494707258	50.0	385.9	Ea
S 7	Nitrate Nitrite as N						5.06	
10	Nitrite as NO2		0.000				ND	
11	Nitrate as NO3		0.000				ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Reagents:

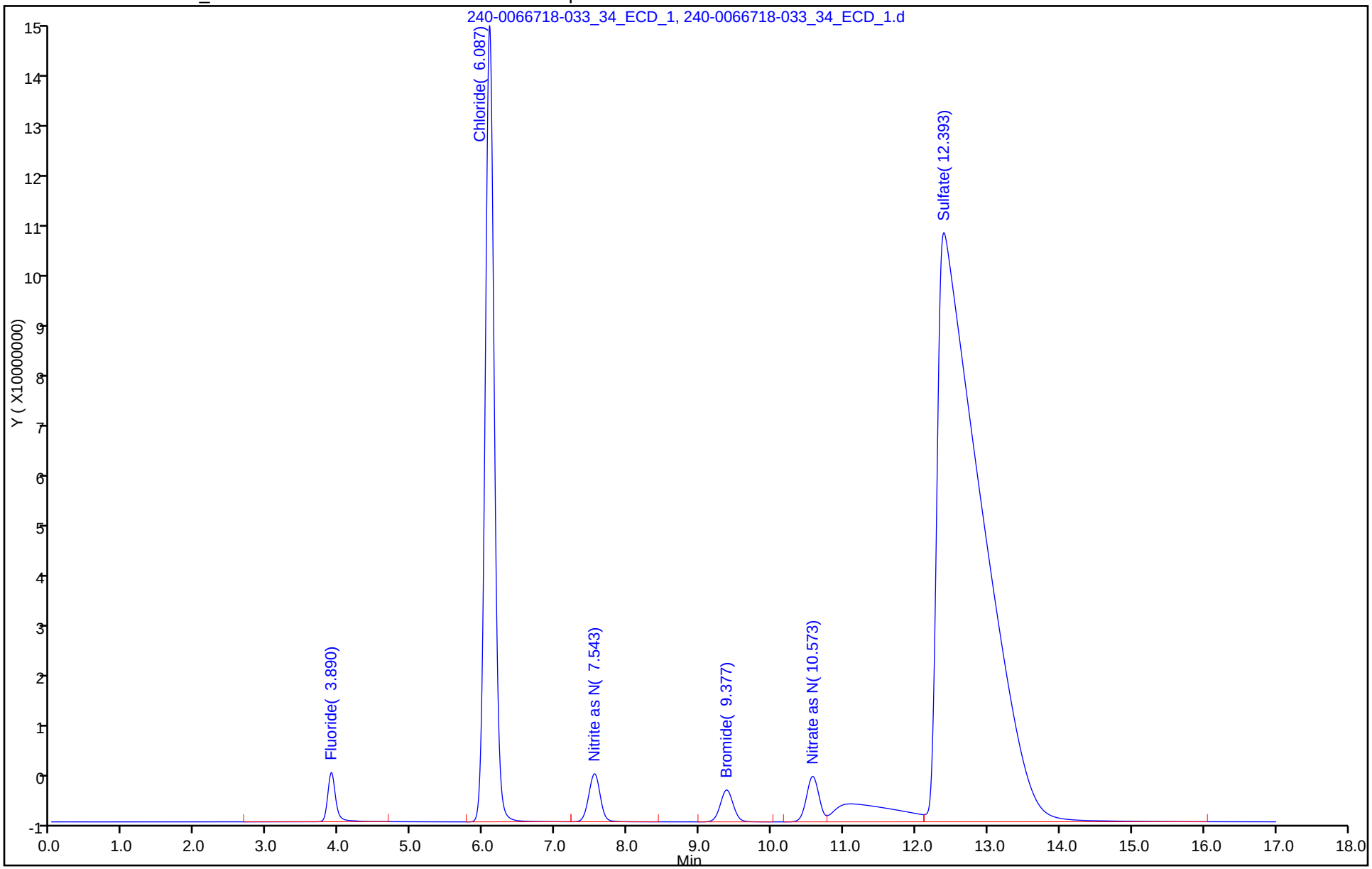
WCICSOLNB1_00015 Amount Added: 0.10 Units: mL
WCICSOLNA1_00016 Amount Added: 0.10 Units: mL

Report Date: 08-Jul-2017 13:27:06 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-033_34_ECD_1.d

Injection Date:	07-Jul-2017 23:22:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-80789-F-4 MS			Worklist Smp#:	33
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-034_35_ECD_1.d
Lims ID: 240-80789-F-4 MSD
Client ID:
Sample Type: MSD
Inject. Date: 07-Jul-2017 23:42:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-034
Misc. Info.: 240-80789-F-4 MSD
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:26:57 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

First Level Reviewer: weimerj Date: 08-Jul-2017 13:18:22

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.907	3.910	-0.003	70411720	2.50	2.83	
2	Chloride	6.097	6.107	-0.010	1293702310	50.0	78.9	
3	Nitrite as N	7.553	7.570	-0.017	99434715	2.50	2.61	
4	Bromide	9.383	9.473	-0.090	74254310	10.0	10.7	
5	Nitrate as N	10.577	10.890	-0.313	103386536	2.50	2.61	a
6	Sulfate	12.383	13.210	-0.827	4508879954	50.0	387.1	Ea
S 7	Nitrate Nitrite as N						5.22	
10	Nitrite as NO2		0.000				ND	
11	Nitrate as NO3		0.000				ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Reagents:

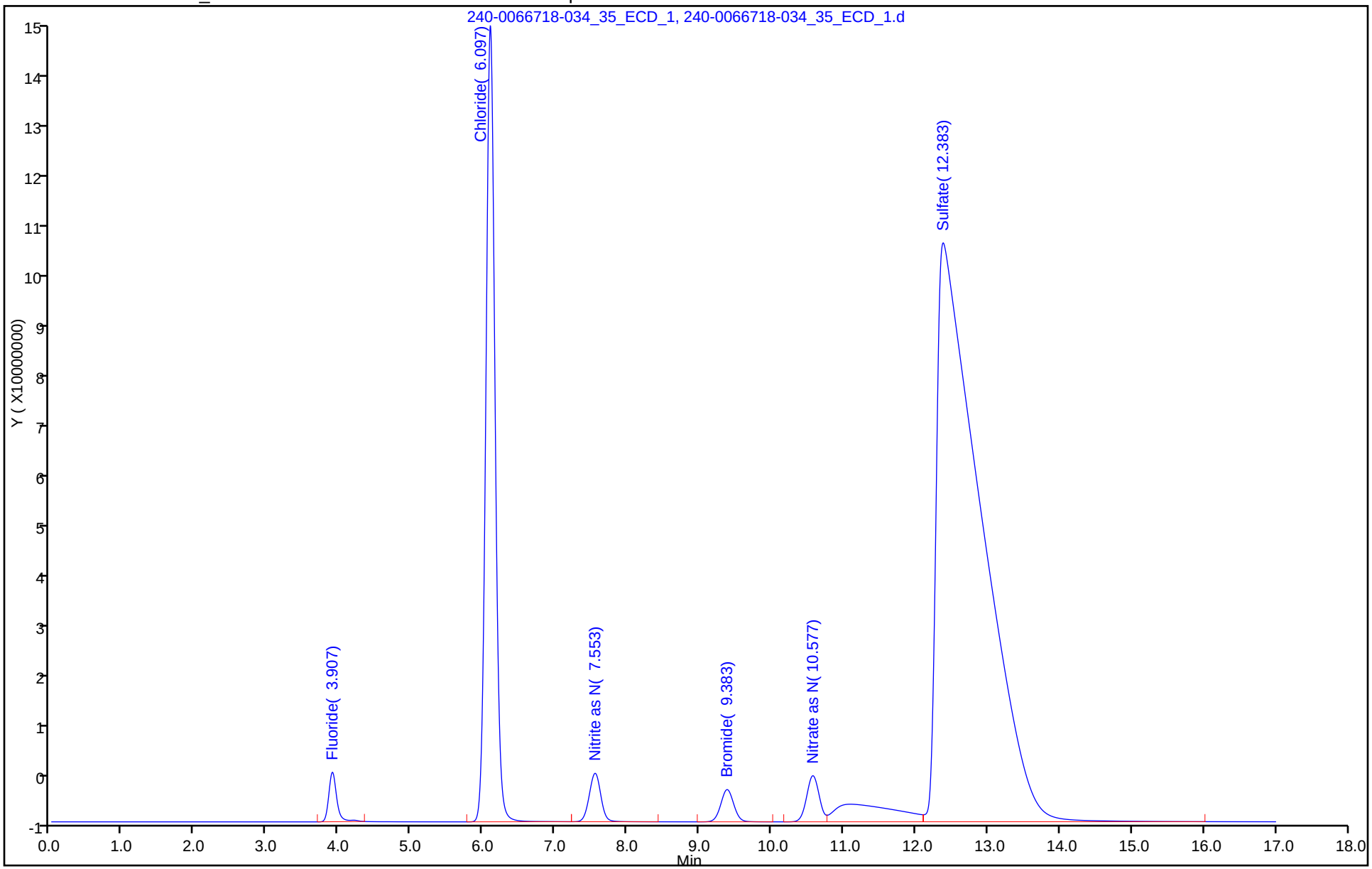
WCICSOLNB1_00015 Amount Added: 0.10 Units: mL
WCICSOLNA1_00016 Amount Added: 0.10 Units: mL

Report Date: 08-Jul-2017 13:27:06 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-034_35_ECD_1.d

Injection Date:	07-Jul-2017 23:42:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	240-80789-F-4 MSD			Worklist Smp#:	34
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-035_36_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 08-Jul-2017 00:02:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-035
Misc. Info.: CCV
Operator ID: Instrument ID: VERONICA
Sublist: chrom-300_Veronica*sub2

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:27:07 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Fluoride	3.900	3.900	0.000	65627763	2.50	2.64	
2	Chloride	6.097	6.097	0.000	830878083	50.0	50.7	
3	Nitrite as N	7.560	7.560	0.000	94743512	2.50	2.49	
4	Bromide	9.467	9.467	0.000	70006600	10.0	10.1	
5	Nitrate as N	10.883	10.883	0.000	97771091	2.50	2.47	
6	Sulfate	13.167	13.167	0.000	601210649	50.0	51.6	
S 7	Nitrate Nitrite as N						4.96	

Reagents:

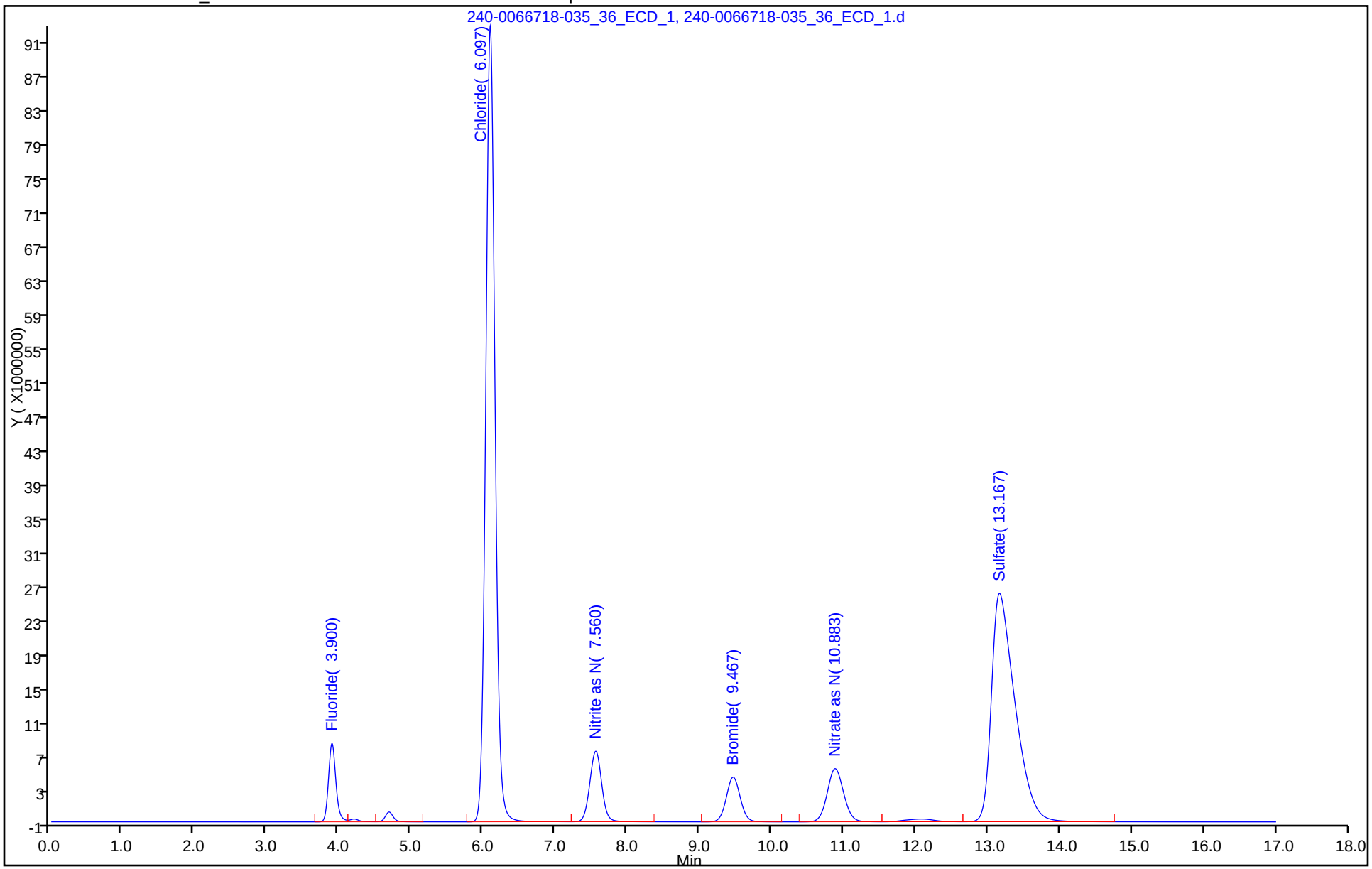
WCICCCV_00775 Amount Added: 5.00 Units: mL

Report Date: 08-Jul-2017 13:27:07 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-035_36_ECD_1.d

Injection Date:	08-Jul-2017 00:02:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	35
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-036_37_ECD_1.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 08-Jul-2017 00:23:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0066718-036
Misc. Info.: CCB
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 08-Jul-2017 13:27:07 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK028

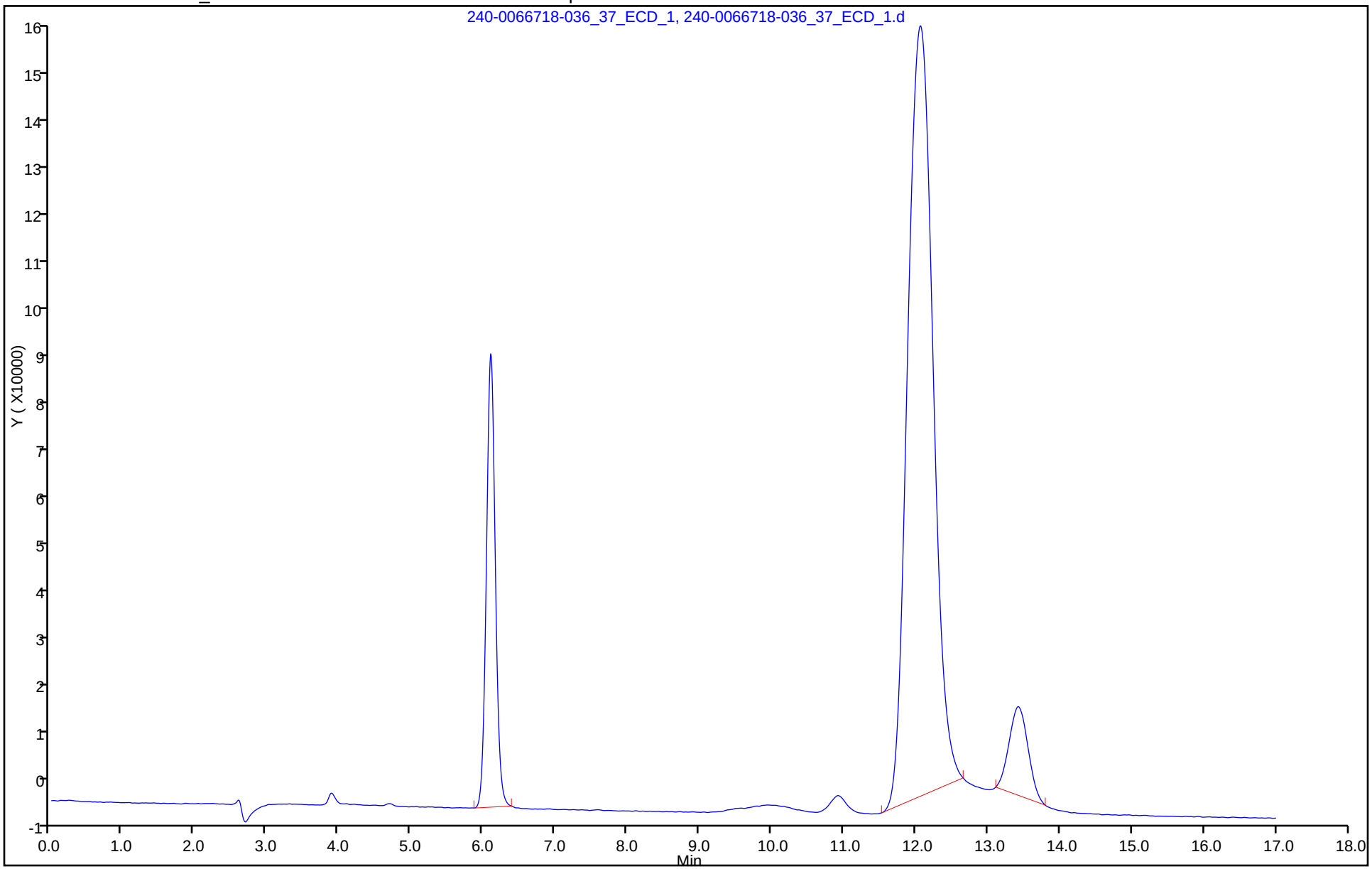
	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Fluoride		3.900				ND	
	3 Nitrite as N		7.560				ND	
	4 Bromide		9.467				ND	
	5 Nitrate as N		10.883				ND	
S	7 Nitrate Nitrite as N		0.000				ND	
	10 Nitrite as NO2		0.000				ND	
	11 Nitrate as NO3		0.000				ND	

Report Date: 08-Jul-2017 13:27:08 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170707-66718.b\240-0066718-036_37_ECD_1.d

Injection Date:	08-Jul-2017 00:23:00	Instrument ID:	VERONICA	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	36
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_Veronica	Limit Group:	WET IC ICAL		



Analysis Date: 7/18/2017 **Analyst:** CLL

Analysis Start Time: 14:30

B# 217391
file#0718175AL

R_t = [C(S,T,P)/C(35,15,0 where $r_t = c_0 + c_1T + c_2T^2 + c_3T^3 + c_4T^4$

Salinity = $a_o + a_1R_t^{1/2} + a_2R_t + a_3R_t^{3/2} + a_4R_t^2 + a_5R_t^{5/2}$ + temperature correction

Temperature correction = $[((t-15)/(1+(0.0162*(t-15)))] * [b_o + b_1R_t^{1/2} + b_2R_t + b_3R_t^{3/2} + b_4R_t^2 + b_5R_t^{5/2}]$

a_o =	0.0080	b_o =	0.0005	c_o =	6.766097E-01
a_1 =	-0.1692	b_1 =	-0.0056	c_1 =	2.005640E-02
a_2 =	25.3851	b_2 =	-0.0066	c_2 =	1.104258E-04
a_3 =	14.0941	b_3 =	-0.0375	c_3 =	-6.969800E-07
a_4 =	-7.0261	b_4 =	0.0636	c_4 =	1.003100E-09
a_5 =	2.7081	b_5 =	-0.0144	at T=25°C, r_t = 1.23654	

Constants: Temp. = 25.0° C C(35,15,0) = 42.914 mS/cm

Laboratory ID	Dilution Factor	Conductivity (umhos/cm)	Rt	$Rt^{1/2}$	Rt^2	$Rt^{3/2}$	$Rt^{5/2}$	Temp. Corr.	Salinity
MB	1	0.29	5.465E-06	2.338E-03	2.987E-11	1.278E-08	6.982E-14	4.190E-03	<2
180-68209-1	1	142	2.676E-03	5.173E-02	7.161E-06	1.384E-04	3.704E-07	1.617E-03	<2
68209-1DU	1	143	2.695E-03	5.191E-02	7.262E-06	1.399E-04	3.770E-07	1.607E-03	<2
240-82240-2	1	367	6.916E-03	8.316E-02	4.783E-05	5.752E-04	3.978E-06	-2.577E-04	<2
82240-3	1	379	7.142E-03	8.451E-02	5.101E-05	6.036E-04	4.311E-06	-3.430E-04	<2
82240-4	1	365	6.878E-03	8.294E-02	4.731E-05	5.705E-04	3.924E-06	-2.434E-04	<2
82240-5	1	2946	5.552E-02	2.356E-01	3.082E-03	1.308E-02	7.262E-04	-1.283E-02	<2
82290-1	1	257	4.843E-03	6.959E-02	2.346E-05	3.370E-04	1.632E-06	5.778E-04	<2
81987-2	1	1094	2.062E-02	1.436E-01	4.250E-04	2.960E-03	6.103E-05	-4.518E-03	<2
81987-2	1	267	5.032E-03	7.093E-02	2.532E-05	3.569E-04	1.796E-06	4.971E-04	<2
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								
	1								

This calculation only valid for Salinities of 2 to 42

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
SPECIFIC CONDUCTANCE LOGSHEET
Methods 120.1/9050A/SM2510B
NB-2017-012

B# 217384 File# 071817CONDA

LCS True Value: 84	100 mS Standard	Meter ID: Ultrameter II Psi SN 6205309
LCS TALS Reagent ID: 2245827	TALS Reagent ID: 2294807	Reporting Limit Acceptance: <1 µmho/cm
CCV True Value: 500	100 mS STD Reading: 100.0 mS	Analyst: [signature]
CCV TALS Reagent ID: 1968901		Analysis Date: 7-18-17

CALCULATIONS:

Cell Correction Factor:

100 mS / 100 mS Reading

SPECIFIC CONDUCTANCE:

Sample Reading x Cell Correction Factor

Conductivity Meter performs automatic temperature compensation.

Sample ID	Conductivity Reading (µmhos/cm)	Temperature °C
LCS	CW 7-18-17 ~~82~~ 85.2 101%	21.7
MB	0.29	21.7
180-68209-1	142 RPD	22.1
↓ -1X	143 / 1%	22.1
240-82240-2	367	21.8
↓ 3	379	22.0
↓ 4	365	21.9
↓ 5	2946	22.2
240-82290-1	257	21.8
240-81987-1	1094	22.2
↓ -2	267	22.4
CCV	506 101%	22.0
CCB	0.33	21.7

[signature]

Reviewed By: _____ Date: _____

Subcontract Data

How to Use Estimated Percentile Ranks from the Microbial Insights Database

The MI Database and Client Portal

The Microbial Insights Database is the largest collection of field concentrations of key microorganisms and functional genes currently containing qPCR and QuantArray results for more than 32,000 unique groundwater, soil, and sediment samples from all 50 states and 33 countries worldwide. Driven by field samples, the database reflects the impacts of common contaminants, geochemical conditions, and site management practices on critical microbial populations.

With your report, you received a passcode enabling you to retrieve estimates of the percentile ranks of your results based on those compiled in the MI database at no additional charge. When accessing the database, you will be asked to provide background information about the sample (e.g. contaminant concentrations) to aid in understanding the links between environmental conditions and microbial populations. As with all client information provided to MI, site specific data will be treated as confidential.

Is that low, medium or high?

In practice, biodegradation depends not just on the presence but the actual concentrations of the contaminant degrading microorganisms. Simply put, qPCR and QuantArray results demonstrating high concentrations of target microorganisms or functional genes suggest in situ selection, enrichment and growth of those specific contaminant degraders and therefore a greater probability that monitored natural attenuation (MNA) or bioremediation will be successful.

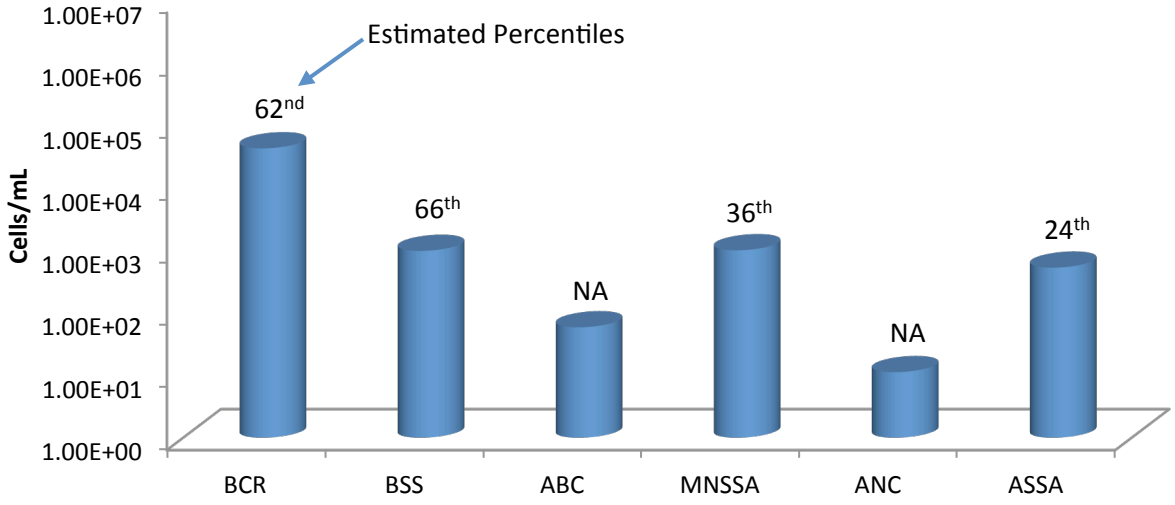
Is that a low, medium, or high concentration? The estimated percentile ranks retrieved from the MI Database answer that question by comparing your qPCR and QuantArray results to those of the literally thousands of other environmental samples submitted to MI for analysis over the last 20+ years.

Using the Estimated Percentile - Interpretation Examples

MNA Assessment – Petroleum Hydrocarbon Site:

Whenever possible, interpretation of qPCR and QuantArray results should include comparisons between samples obtained from background and impacted wells. The estimated percentile ranks however provide an additional avenue for comparison and evaluation of treatment options as shown below.

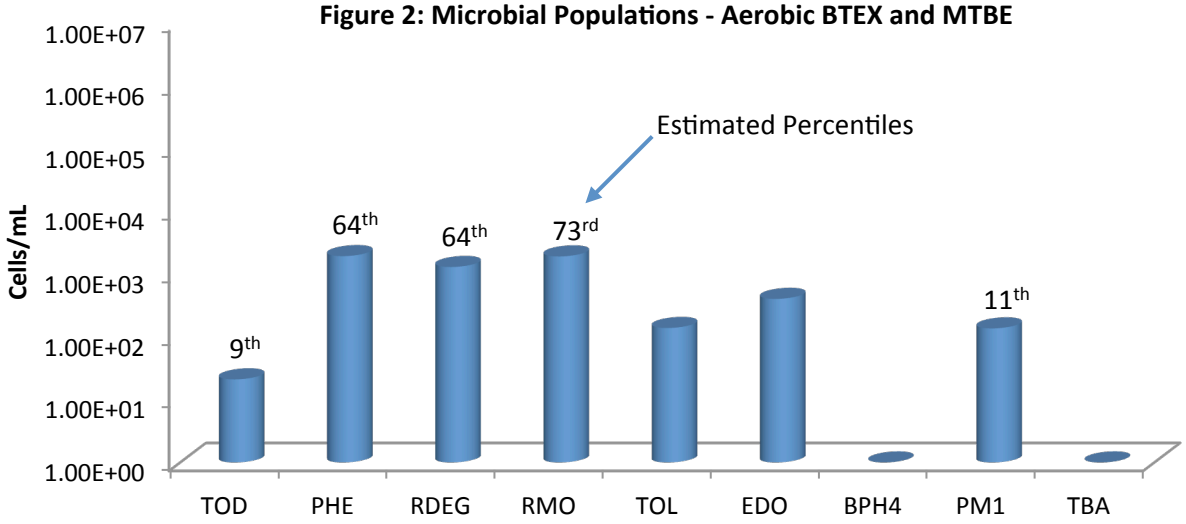
Figure 1: Microbial Populations - Anaerobic BTEX and PAHs



Anaerobic BTEX and PAH Biodegradation (Figure 1):

- With moderate concentrations of functional genes involved in anaerobic BTEX metabolism detected, the QuantArray-Petro® results were encouraging in terms of evaluating biodegradation potential under existing site conditions.
- More specifically, benzylsuccinate synthase (BSS) was detected on the order of nearly 10^3 cells/mL indicating the presence of a substantial population (66th percentile) capable of anaerobic biodegradation of toluene and other alkyl substituted benzenes.
- Naphthyl-2-methylsuccinate synthase (MNSSA) and alkylsuccinate synthase (ASSA) genes were also detected indicating the potential for anaerobic biodegradation of 2-methylnaphthalene and normal alkanes.
- The concentration of MNSSA genes would be considered modest with an estimated percentile of 36th.
- While the percentile rank for MNSSA would be "below average", a number of additional factors should be considered.
    - First, anaerobic hydrocarbon degraders are less prevalent than aerobic BTEX degraders and overall detection frequencies for many genes involved in anaerobic hydrocarbon biodegradation are less than 50%.
    - Therefore, the detection of genes like BSS, MNSSA, ASSA, anaerobic benzene carboxylase (ABC), and anaerobic naphthalene carboxylase (ANC) even at low concentrations is certainly noteworthy and inherently "better than average".
    - The estimated percentiles for all assays are based only on samples where the concentration of the target gene was greater than the practical quantitation limit (PQL).
    - For less commonly detected targets like many of the genes involved in anaerobic hydrocarbon biodegradation this is an especially important consideration.
    - Excluding samples where a gene target is below the PQL ensured that the median concentrations of less commonly detected targets would not be unduly biased low by the fact that the gene is not detected in most samples.
- Anaerobic benzene carboxylase (ABC) and naphthalene carboxylase (ANC) genes were also detected indicating the presence of bacterial populations capable of anaerobic biodegradation of benzene and naphthalene.
- For newly identified genes like ABC and ANC, estimated percentile ranks are not yet available due to the limited number of field samples that have been analyzed to date.
- However, like MNSSA and other genes involved in anaerobic hydrocarbon biodegradation, ABC and ANC detection frequencies are relatively low so the detection of these genes even at low concentrations should be considered when evaluating biodegradation potential under existing site conditions.

Figure 2: Microbial Populations - Aerobic BTEX and MTBE



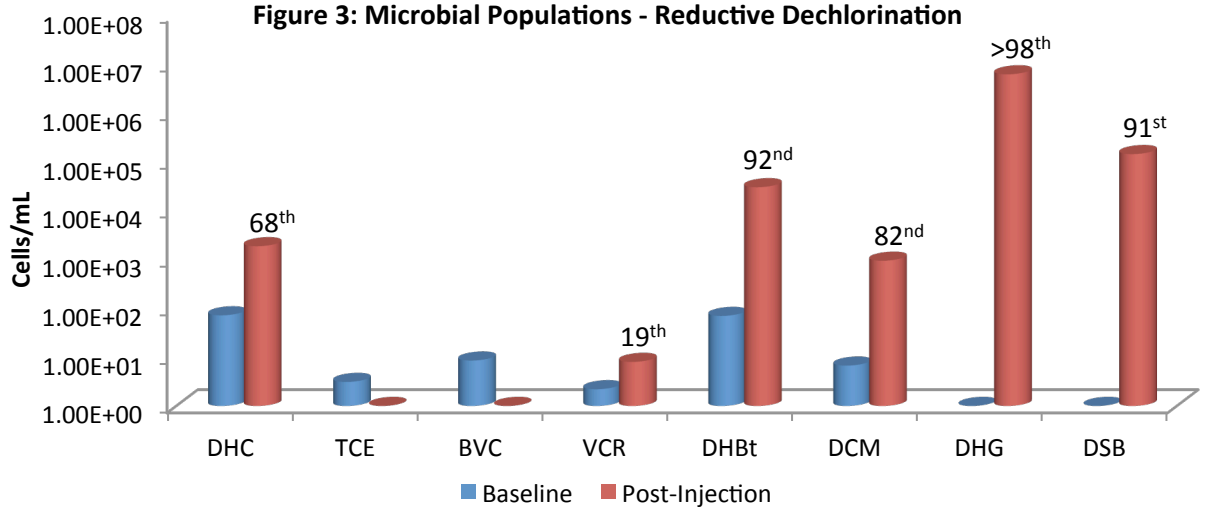
Aerobic BTEX and MTBE Biodegradation (Figure 2):

- With growing evidence that aromatic oxygenases function at low dissolved oxygen concentrations, aerobic BTEX biodegradation pathways should also be evaluated when considering MNA.
- Again, the QuantArray-Petro results were encouraging – genes encoding the first step in multiple pathways for aerobic BTEX biodegradation were detected indicating the presence of a diverse population of aerobic BTEX degraders.
- However, aerobic BTEX degraders are often considered ubiquitous. Therefore answering the question "Is that low, medium or high?" becomes especially important when evaluating aerobic BTEX biodegradation at petroleum hydrocarbon sites.
- In this case, the estimated percentile ranks of the concentrations of toluene/benzene monooxygenase (RMO and RDEG) and phenol hydroxylase (PHE) genes ranged from the 64th to 73rd percentile.
- In other words, the concentrations of RMO, RDEG, and PHE detected in this groundwater sample were greater than the concentrations detected in 64% to 73% of all other groundwater samples where these genes were analyzed and detected above the PQL.
- Aerobic BTEX degraders are common in the environment, but in this sample concentrations of toluene/benzene monooxygenase genes could be viewed as "better than average" when compared to the MI Database.

Biostimulation – Chlorinated Solvent Site:

Whenever possible, interpretation of qPCR and QuantArray results should include comparisons between baseline and post-injection monitoring events as shown below (Figure 3). The estimated percentile ranks however provide an additional avenue for comparison and evaluation of remedy performance.

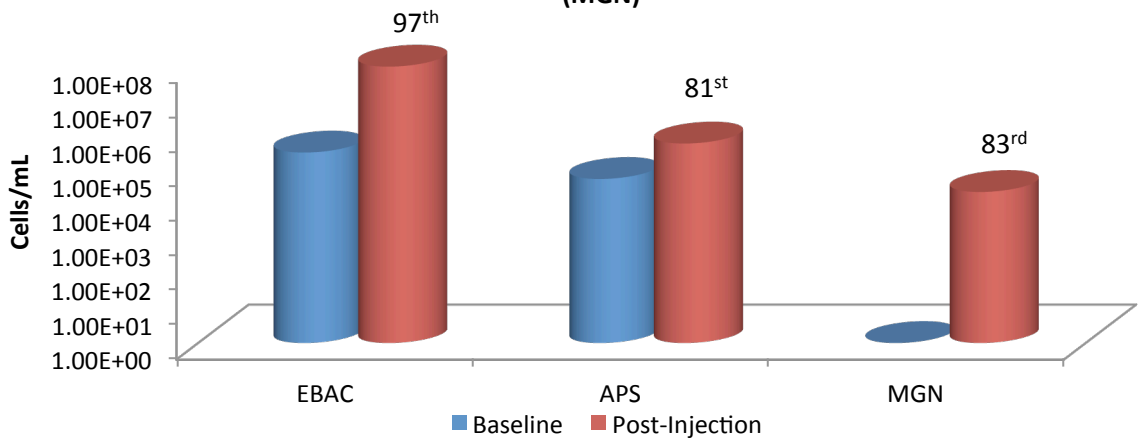
Figure 3: Microbial Populations - Reductive Dechlorination



- During the baseline groundwater sampling event, *Dehalococcoides* and vinyl chloride reductase genes were detected indicating the potential for complete reductive dechlorination of PCE and TCE to ethene.
- However, the *Dehalococcoides* concentration was well below the 10^4 cells/mL recommended by Lu et al. (2006) for generally effective rates of reductive dechlorination.
- Based on qPCR results as well as traditional groundwater monitoring, biostimulation with electron donor addition was selected as the site management plan.
- By the first monitoring event after injection, populations of halorespiring bacteria had increased substantially in response to electron donor addition.
    - *Dehalobacter* populations increased by more than two orders of magnitude to post-injection concentrations greater than 10^4 cells/mL (92nd percentile).
    - *Dehalogenimonas* (10^6 cells/mL) and *Desulfitobacterium* (10^5 cells/mL) which had not been detected prior electron donor addition were present at concentrations greater than observed in over 90% of other groundwater samples where these halorespiring bacteria were detected.
- After injection, *Dehalococcoides* populations increased by more than an order of magnitude to a concentration of over 10^3 cells/mL (68th percentile) demonstrating growth of this key group of halorespiring bacteria.
- Despite a substantial increase and a "better than average" concentration, the *Dehalococcoides* population was still below the 10^4 cells/mL threshold and vinyl chloride reductase gene copies were low (19th percentile).
    - In terms of electron donors and acceptors, the metabolic capabilities of *Dehalococcoides* are rather specialized (hydrogen utilizing obligate halorespiring bacteria) so the median concentration is low. With a low median concentration across the database, a "better than average" *Dehalococcoides* concentration in a given sample may not exceed the 10^4 cells/mL threshold established for effective reductive dechlorination (Lu et al. 2006) and ethene production (Microbial Insights, unpublished data).

- In this case, the initial growth of *Dehalococcoides* was substantial but may have been somewhat hindered by competition with sulfate reducing bacteria (Figure 4 below).
    - The baseline population of sulfate reducing bacteria was moderate (10^4 cells/mL; 63rd percentile). Consistent with an observed decreased in dissolved sulfate concentrations, populations of sulfate reducing bacteria increased and were detected at a relatively high concentration (81st percentile) after electron donor addition.
    - After injection, methanogen populations also increased to a relatively high concentration (83rd percentile) suggesting generation of methanogenic conditions.
- With sulfate depletion and generation of highly anaerobic conditions more conducive to reductive dechlorination, *Dehalococcoides* populations may continue to increase and exceed the 10^4 *Dehalococcoides* cells/mL threshold in subsequent monitoring events.
- Overall, QuantArray analysis conclusively demonstrated that electron donor addition stimulated growth of halorespiring bacteria with the estimated percentiles retrieved from the MI Database providing the "low, medium or high" perspective to the observed changes in microbial populations.

Figure 4: Total Bacteria (EBAC), Sulfate Reducering Bacteria (APS) and Methanogens (MGN)



References

Lu, X., J.T. Wilson, and D.H. Kampbell. 2006. Relationship between *Dehalococcoides* DNA in ground water and rates of reductive dechlorination at field scale. *Water Research* 40 no. 16: 3131-3140.

How to Retrieve and Use Estimated Percentile Ranks from the Microbial Insights Database

The MI Database

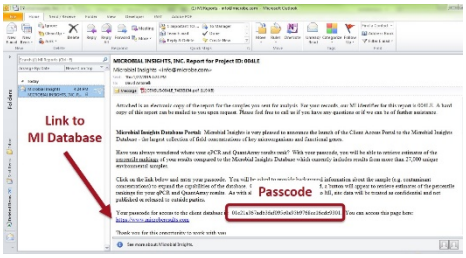
The Microbial Insights Database is the largest collection of field concentrations of key microorganisms and functional genes currently containing qPCR and QuantArray results for more than 40,000 unique groundwater, soil, and sediment samples from all 50 states and 33 countries worldwide.

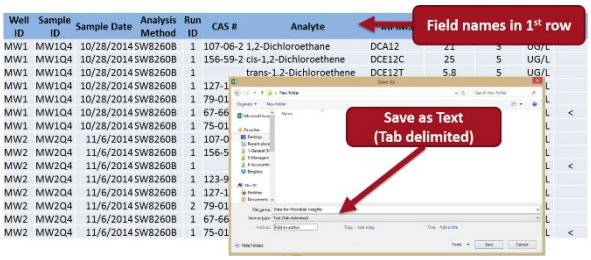
Is that low, medium or high?

In practice, biodegradation depends not just on the presence but the actual concentrations of the contaminant degrading microorganisms. The estimated percentile ranks retrieved from the MI Database answer the question "Is that low, medium or high?" by comparing your results to those of the literally thousands of other environmental samples submitted to MI for analysis over the last 20+ years.

Retrieving Estimated Percentile Ranks

With your report, you were emailed a passcode and link enabling you to login to the Client Portal. Just enter basic information about the sample (e.g. contaminant concentrations) to aid in understanding the links between environmental conditions and microbial populations and you can retrieve estimates of the percentile ranks of your results based on those compiled in the MI database at no additional charge.





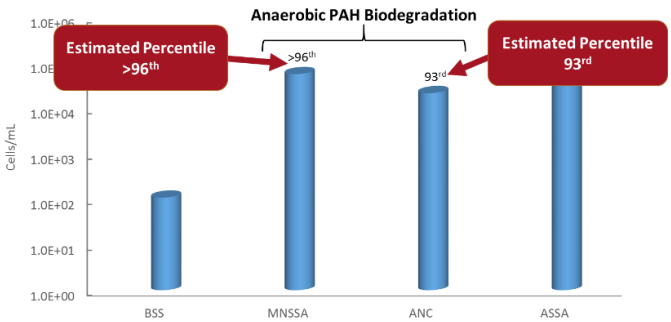
All site specific data will be treated as confidential and uploading is easy.

You can even upload chemical and geochemical data from EDDs. Just save as a Tab Delimited text file.

Example - Using Estimated Percentile for MNA Assessment at an MGP Site

CENSUS® qPCR was performed to quantify anaerobic naphthalene carboxylase (ANC) and naphthyl-2-methylsuccinate synthase (MNSSA) to assess anaerobic biodegradation of naphthalene and methyl-naphthalene under existing site conditions.

- Not only were ANC and MNSSA genes detected, but these functional genes responsible for anaerobic biodegradation of PAHs were present at concentrations "far better than average" based on the estimated percentile ranks.
- Demonstrating high concentrations of ANC and MNSSA gave an additional line of evidence indicating growth substantial populations of anaerobic PAH degraders and suggested a greater probability that monitored natural attenuation (MNA) will be successful.



10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: John McFadden
Test America
4101 Shuffel Street NW
North Canton, OH 44720

Phone:

Fax:

Identifier: 011OG **Date Rec:** 07/08/2017 **Report Date:** 07/12/2017

Client Project #: 24015639 **Client Project Name:** MRC Block E

Purchase Order #: TA # 240-73256.1

Analysis Requested: CENSUS

Reviewed By:



NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Test America**
Project: MRC Block E

MI Project Number: **011OG**
Date Received: 07/08/2017

Sample Information

Client Sample ID:		**SEMW-9I-07061 7 (240-81987-2)**	**SEMW-8I-07061 7 (240-81987-3)**
Sample Date:		07/06/2017	07/06/2017
Units:		cells/mL	cells/mL
Analyst/Reviewer:		JS	JS

Dechlorinating Bacteria

Dehalococcoides	*DHC*	<5.00E-01	<5.00E-01
tceA Reductase	TCE	<5.00E-01	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	<5.00E-01	<5.00E-01
Vinyl Chloride Reductase	VCR	<5.00E-01	<5.00E-01
Dehalobacter spp.	*DHBt*	**4.34E+02**	**3.06E+04**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

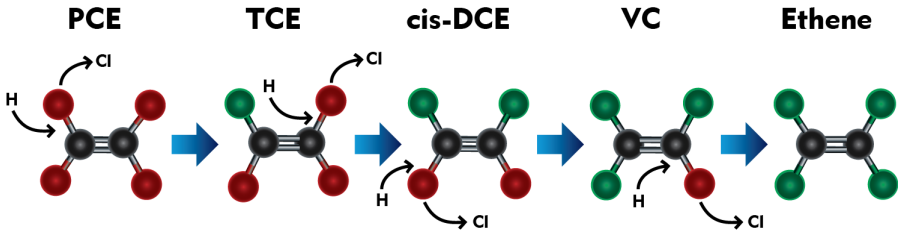
Samples Received **7/8/2017**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	07/08/2017	07/12/2017	0 °C	100%	non-detect	non-detect
DHBt	07/08/2017	07/12/2017	0 °C	90%	non-detect	non-detect
BVC	07/08/2017	07/12/2017	0 °C	104%	non-detect	non-detect
TCE	07/08/2017	07/12/2017	0 °C	101%	non-detect	non-detect
VCR	07/08/2017	07/12/2017	0 °C	104%	non-detect	non-detect

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	**≥ 10^4** (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	**10^1 to < 10^4** (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	**< 10^1** (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

10515 Research Drive
Knoxville, TN 37932
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

10515 Research Drive
Knoxville, TN 37932
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

10515 Research Drive
Knoxville, TN 37932
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

References

1. Freedman, D. L. and J. M. Gossett. 1989. Biological reductive dechlorination of tetrachloroethylene and trichloroethylene to ethylene under methanogenic conditions. Applied and Environmental Microbiology 55(9): 2144-2151.

2. DiStefano, T. D., J.M. Gossett, and S.H. Zinder. 1991. Reductive dechlorination of high concentrations of tetrachlorethene to ethene by an anaerobic enrichment culture in the absence of methanogenesis. Applied and Environmental Microbiology 57(8): 2287-2292.

3. Gerritse, J., V. Renard, T. M. Pedro Gomes, P. A. Lawson, M. D. Collins, and J. C. Gottschal. 1996. *Desulfitobacterium* sp. Strain PCE1, an anaerobic bacterium that can grow by reductive dechlorination of tetrachloroethene or ortho-chlorinated phenols. Archives of Microbiology 165(2): 132-140.

4. Gerritse, J., O. Drzyzga, G. Kloetstra, M. Keijmel, L. P. Wiersum, R. Hutson, M. D. Collins, and J. C. Gottschal. 1999. Influence of different electron donors and acceptors on dehalorespiration of tetrachloroethene by *Desulfitobacterium frappieri* TCE1. Applied and Environmental Microbiology 65(12): 5212-5221.

5. Holliger, C., G. Schraa, A.J.M. Stams, and A.J.B. Zehnder. 1993. A highly purified enrichment culture couples the reductive dechlorination of tetrachloroethene to growth. Applied and Environmental Microbiology 59 (9): 2991-2997.

6. Krumholz, L. R., R. Sharp, and S. S. Fishbain. 1996. A freshwater anaerobe coupling acetate oxidation to tetrachloroethylene dehalogenation. Applied and Environmental Microbiology 62(11): 4108-4113.

7. Löffler, F.E., R.A. Sanford, and J.M. Tiedje. 1996. Initial characterization of a reductive dehalogenase from *Desulfitobacterium chlororespirans* Co23. Applied and Environmental Microbiology 62(10): 3809–3813.

10515 Research Drive
Knoxville, TN 37932
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

8. Maymó-Gatell, X., T. Anguish, and S.H. Zinder. 1999. Reductive dechlorination of chlorinated ethenes and 1,2-dichloroethane by *Dehalococcoides ethenogenes* 195. Applied and Environmental Microbiology 65(7): 3108–3113.

9. Hendrickson, E.R., J. Payne, R.M. Young, M.G. Starr, M.P. Perry, S. Fahnestock, D.E. Ellis, and R.C. Eversole. 2002. Molecular analysis of *Dehalococcoides* 16S ribosomal DNA from chloroethene-contaminated sites throughout North America and Europe. Applied and Environmental Microbiology 68(2): 485-495.

10. Lu, X., J.T. Wilson, and D.H. Kampbell. 2006. Relationship between *Dehalococcoides* DNA in ground water and rates of reductive dechlorination at field scale. Water Research 40:3131-3140.

11. Adrian, L, U. Szewzyk, J. Wecke, and H. Görisch. 2000. Bacterial dehalorespiration with chlorinated benzenes. Nature 408(6812): 580-583.

12. Holmes, V.F., J. He, P.K.H. Lee, and L. Alvarez-Cohen. 2006. Discrimination of multiple *Dehalococcoides* strains in a trichlorethene enrichment by quantification of their reductive dehalogenase genes. Applied and Environmental Microbiology 72(9): 5877-5883.

13. Lee, P.K.H., D.R. Johnson, V.F. Holmes, J. He, and L. Alvarez-Cohen. 2006. Reductive dehalogenase gene expression as a biomarker for physiological activity of *Dehalococcoides* spp. Applied and Environmental Microbiology 72(9): 6161-6168.

14. Müller, J.A., B.M. Rosner, G. von Avendroth, G. Meshulam-Simon, P.L. McCarty, and A.M. Spormann. 2004. Molecular identification of the catabolic vinyl chloride reductase from *Dehalococcoides* sp. strain VS and its environmental distribution. Applied and Environmental Microbiology 70(8): 4880-4888.

15. Ritalahti, K.M., B.K. Amos, Y. Sung, Q. Wu, S.S. Koenigsberg, and F.E. Löffler. 2006. Quantitative PCR targeting 16S rRNA and reductive dehalogenase genes simultaneously monitors multiple *Dehalococcoides* strains. Applied and Environmental Microbiology 72(4): 2765-2774.

16. Krajmalnik-Brown, R., T. Hölscher, I. N. Thomson, F. M. Saunders, K. M. Ritalahti, and F. E. Löffler. 2004. Genetic identification of a putative vinyl chloride reductase in *Dehalococcoides* sp. strain BAV1. Applied and Environmental Microbiology 70:6347–6351.

17. van der Zaan, B., F. Hannes, N. Hoekstra, H. Rijnaarts, W.M. de Vos, H. Smidt, and J. Gerritse. 2010. Correlation of *Dehalococcoides* 16S rRNA and chlorethene-reductive dehalogenase genes with geochemical conditions in chloroethene-contaminated groundwater. Applied and Environmental Microbiology 76(3):843-850.

18. Behrens, S., M.F., Azizian, P.J. McMurdie, A. Sabalowsky, M.E. Dolan, L. Semprini, and A.M. Spormann. 2008. Monitoring abundance and expression of *Dehalococcoides* species chloroethene-reductive dehalogenases in a tetrachloroethene-dechlorinating flow column. Applied and Environmental Microbiology 74(18):5695-5703.

19. Sung, Y., K. M. Ritalahti, R. P. Apkarian, and F. E. Löffler. 2006. Quantitative PCR confirms purity of strain GT, a novel trichloroethene (TCE)-to-ethene respiring Dehalococcoides isolate. Appl. Environ. Microbiol. 72:1980-1987

10515 Research Drive
Knoxville, TN 37932
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

Shipping and Receiving Documents

180325

BALTIMORE

U. 814-8

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Chris Pike	Site Contact: Stuart Cameron	Date: 7/6/2017	COC No:
Tera Tech	Tel/Fax: (412)921-8861 (Office)	Lab Contact: John McFadden	Carrier: Test America Courier	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC07896 - LI 19
Germantown, MD 20874	Calendar (C) or Work Days (W) W			
(412) 921-8861 Phone	TAT if different from Below 20 Days			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC, Block E Downgradient Investigation	☐ 1 week			Sampler: S. Cameron
Site: Middle River Complex	☐ 2 days			
P O # 112IC07896 - LI 19	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Alkalinity	Sulfate, Nitrate, Bromide, TDS	Iron and Manganese	Dissolved Gasses	Salinity	Hardness	DHC*
SEMW-9S-070617	7/6/2017	12:35	G	AQ	8		X	X	X	X		X	X	
SEMW-9I-070617	7/6/2017	12:40	G	AQ	13		X	X	X	X	X	X	X	X
SEMW-8I-070617	7/6/2017	13:55	G	AQ	8		X				X			X
SEMW-7I-070617	7/6/2017	14:10	G	AQ	3		X							
TB-070617	--	--	--	AQ	2		X							
							2	1	1	4	2	1	4	1

240-81987 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: *DHC needs forwarded to another lab and has a 24-48 hour hold time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tera Tech	7-6-17/	Dalice Carter	Test Am	7/6/2017 1700
Relinquished by: Dalice Carter	Company: TA	Date/Time: 7/6/17 1700	Received by: [signature]	Company: TA	Date/Time: 7-7-17 920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 81987**
Canton Facility

Client Testamon Site Name _____ Cooler unpacked by:

Cooler Received on 7-7-17 Opened on 7-7-17

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-8 (CF **-0.4** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN #36 (CF **+0**°C) Observed Cooler Temp. 4.8 °C Corrected Cooler Temp. 4.8 °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC?	(Yes)	No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	(Yes)	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-82240-1

Job Description: MRC Block F

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Mike Martin



Approved for release.
John McFadden
Project Manager I
7/25/2017 8:46 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
07/25/2017

cc: Tony Apanavage
Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Detection Summary 8

Client Sample Results 10

Default Detection Limits 17

Surrogate Summary 19

QC Sample Results 20

QC Association 28

Chronicle 30

Certification Summary 32

Method Summary 33

Sample Summary 34

Manual Integration Summary 35

Reagent Traceability 38

Organic Sample Data 58

GC/MS VOA 58

Method 8260C 58

Method 8260C QC Summary 59

Method 8260C Sample Data 71

Standards Data 79

Method 8260C ICAL Data 79

Method 8260C CCAL Data 89

Raw QC Data 97

Method 8260C Blank Data 97

Table of Contents

Method 8260C LCS/LCSD Data 99

Method 8260C MS/MSD Data 101

Method 8260C Run Logs 105

Inorganic Sample Data 107

Metals Data 107

Met Cover Page 108

Met Sample Data 109

Met QC Data 113

Met ICV/CCV 113

Met Blanks 116

Met ICSA/ICSAB 118

Met MS/MSD/PDS 120

Met LCS/LCSD 122

Met Serial Dilution 123

Met MDL 124

Met IECF 128

Met Linear Ranges 129

Met Preparation Log 130

Met Analysis Run Log 131

Met Prep Data 140

General Chemistry Data 142

Gen Chem Cover Page 143

Gen Chem Sample Data 145

Gen Chem QC Data 153

Gen Chem ICV/CCV 153

Gen Chem Blanks 155

Table of Contents

Gen Chem MS/MSD/PDS 157

Gen Chem Duplicates 159

Gen Chem LCS/LCSD 161

Gen Chem MDL 162

Gen Chem Analysis Run Log 170

Gen Chem Prep Data 175

Subcontracted Data 182

Shipping and Receiving Documents 183

Client Chain of Custody 184

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block F

Report Number: 240-82240-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 2520B Salinity analysis was performed at the TestAmerica Pittsburgh Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 7/13/2017 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-071217 (240-82240-1), EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3) and EW-1-FINAL-071217 (240-82240-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/17/2017.

Samples EW-1-MID-071217 (240-82240-2)[500X], EW-1-END-071217 (240-82240-3)[500X] and EW-1-FINAL-071217 (240-82240-4) [500X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-287405 was outside the method criteria for the following analytes: Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. TB-071217 (240-82240-1), EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and (CCVIS 240-287405/3)

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

TOTAL RECOVERABLE METALS (ICP)
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/17/2017 and analyzed on 07/18/2017.

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

HARDNESS
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3) and EW-1-FINAL-071217 (240-82240-4) were analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 07/19/2017.

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

ALKALINITY
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/20/2017.

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

TOTAL DISSOLVED SOLIDS
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/18/2017.

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

ANIONS
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/13/2017.

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

ANIONS
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/13/2017.

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

SALINITY
Samples EW-1-MID-071217 (240-82240-2), EW-1-END-071217 (240-82240-3), EW-1-FINAL-071217 (240-82240-4) and MRC-SW-15A-16A-071217 (240-82240-5) were analyzed for Salinity in accordance with SM 2520B. The samples were analyzed on 07/18/2017.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Client Sample ID: TB-071217 — Lab Sample ID: 240-82240-1

No Detections.

Client Sample ID: EW-1-MID-071217 — Lab Sample ID: 240-82240-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	21000		500	170	ug/L	500		8260C	Total/NA
Hardness as calcium carbonate	38		33	33	mg/L	1		2340B-1997	Total Recoverable
Calcium hardness as calcium carbonate	12		12	12	mg/L	1		2340B-1997	Total Recoverable
Magnesium hardness as calcium carbonate	26		21	21	mg/L	1		2340B-1997	Total Recoverable
Iron	430		100	25	ug/L	1		6010C	Total Recoverable
Manganese	100		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.32	J	0.50	0.044	mg/L	1		300.0	Total/NA
Nitrite as N	0.039	J	0.10	0.014	mg/L	1		300.0	Total/NA
Nitrate as N	1.1		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	190		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EW-1-END-071217 — Lab Sample ID: 240-82240-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	21000		500	170	ug/L	500		8260C	Total/NA
Hardness as calcium carbonate	38		33	33	mg/L	1		2340B-1997	Total Recoverable
Calcium hardness as calcium carbonate	12		12	12	mg/L	1		2340B-1997	Total Recoverable
Magnesium hardness as calcium carbonate	26		21	21	mg/L	1		2340B-1997	Total Recoverable
Iron	450		100	25	ug/L	1		6010C	Total Recoverable
Manganese	98		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	3.2	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.32	J	0.50	0.044	mg/L	1		300.0	Total/NA
Nitrite as N	0.044	J	0.10	0.014	mg/L	1		300.0	Total/NA
Nitrate as N	1.1		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	200		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EW-1-FINAL-071217 — Lab Sample ID: 240-82240-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	21000		500	170	ug/L	500		8260C	Total/NA
Hardness as calcium carbonate	38		33	33	mg/L	1		2340B-1997	Total Recoverable
Calcium hardness as calcium carbonate	12		12	12	mg/L	1		2340B-1997	Total Recoverable
Magnesium hardness as calcium carbonate	26		21	21	mg/L	1		2340B-1997	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: EW-1-FINAL-071217 (Continued) — Lab Sample ID: 240-82240-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1100		100	25	ug/L	1		6010C	Total Recoverable
Manganese	94		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.32	J	0.50	0.044	mg/L	1		300.0	Total/NA
Nitrite as N	0.043	J	0.10	0.014	mg/L	1		300.0	Total/NA
Nitrate as N	1.1		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	280		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MRC-SW-15A-16A-071217 — Lab Sample ID: 240-82240-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	120		100	25	ug/L	1		6010C	Total Recoverable
Manganese	52		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	45		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	3.9		0.50	0.044	mg/L	1		300.0	Total/NA
Nitrate as N	0.098	J	0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	130		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-071217

Date Collected: 07/12/17 00:00
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 11:23	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 11:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 11:23	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/17/17 11:23	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 11:23	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 11:23	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 11:23	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 11:23	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/17/17 11:23	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 11:23	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 11:23	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 11:23	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 11:23	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 11:23	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 11:23	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 11:23	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 11:23	1
Acetone	1.8	U	10	1.8	ug/L			07/17/17 11:23	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 11:23	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/17/17 11:23	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 11:23	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 11:23	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 11:23	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 11:23	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 11:23	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 11:23	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 11:23	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 11:23	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 11:23	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 11:23	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/17/17 11:23	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/17/17 11:23	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 11:23	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 11:23	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 11:23	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/17/17 11:23	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 11:23	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/17/17 11:23	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 11:23	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 11:23	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 11:23	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 11:23	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 11:23	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 11:23	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 11:23	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 11:23	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 11:23	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 11:23	1

Client Sample ID: TB-071217

Date Collected: 07/12/17 00:00
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*73 - 120*		*07/17/17 11:23*	*1*
Dibromofluoromethane (Surr)	*88*		*69 - 124*		*07/17/17 11:23*	*1*
4-Bromofluorobenzene (Surr)	*94*		*69 - 120*		*07/17/17 11:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*82*		*61 - 138*		*07/17/17 11:23*	*1*

Client Sample ID: EW-1-MID-071217

Date Collected: 07/12/17 08:30
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	120	U	500	120	ug/L			07/17/17 11:46	500
1,1,2,2-Tetrachloroethane	160	U	500	160	ug/L			07/17/17 11:46	500
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210	ug/L			07/17/17 11:46	500
1,1,2-Trichloroethane	170	U	500	170	ug/L			07/17/17 11:46	500
1,1-Dichloroethane	130	U	500	130	ug/L			07/17/17 11:46	500
1,1-Dichloroethene	140	U	500	140	ug/L			07/17/17 11:46	500
1,2,4-Trichlorobenzene	140	U	500	140	ug/L			07/17/17 11:46	500
1,2-Dibromo-3-Chloropropane	240	U	1000	240	ug/L			07/17/17 11:46	500
Ethylene Dibromide	120	U	500	120	ug/L			07/17/17 11:46	500
1,2-Dichlorobenzene	130	U	500	130	ug/L			07/17/17 11:46	500
1,2-Dichloroethane	150	U	500	150	ug/L			07/17/17 11:46	500
1,2-Dichloropropane	150	U	500	150	ug/L			07/17/17 11:46	500
1,3-Dichlorobenzene	160	U	500	160	ug/L			07/17/17 11:46	500
1,4-Dichlorobenzene	120	U	500	120	ug/L			07/17/17 11:46	500
2-Butanone (MEK)	510	U	5000	510	ug/L			07/17/17 11:46	500
2-Hexanone	620	U	5000	620	ug/L			07/17/17 11:46	500
4-Methyl-2-pentanone (MIBK)	360	U	5000	360	ug/L			07/17/17 11:46	500
Acetone	880	U	5000	880	ug/L			07/17/17 11:46	500
Benzene	140	U	500	140	ug/L			07/17/17 11:46	500
Dichlorobromomethane	150	U	500	150	ug/L			07/17/17 11:46	500
Bromoform	220	U	500	220	ug/L			07/17/17 11:46	500
Bromomethane	210	U	500	210	ug/L			07/17/17 11:46	500
Carbon disulfide	170	U	500	170	ug/L			07/17/17 11:46	500
Carbon tetrachloride	180	U	500	180	ug/L			07/17/17 11:46	500
Chlorobenzene	160	U	500	160	ug/L			07/17/17 11:46	500
Chloroethane	210	U	500	210	ug/L			07/17/17 11:46	500
Chloroform	160	U	500	160	ug/L			07/17/17 11:46	500
Chloromethane	220	U	500	220	ug/L			07/17/17 11:46	500
cis-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 11:46	500
cis-1,3-Dichloropropene	130	U	500	130	ug/L			07/17/17 11:46	500
Cyclohexane	220	U	500	220	ug/L			07/17/17 11:46	500
Chlorodibromomethane	130	U	500	130	ug/L			07/17/17 11:46	500
Dichlorodifluoromethane	250	U	500	250	ug/L			07/17/17 11:46	500
Ethylbenzene	130	U	500	130	ug/L			07/17/17 11:46	500
Isopropylbenzene	110	U	500	110	ug/L			07/17/17 11:46	500
Methyl acetate	720	U	5000	720	ug/L			07/17/17 11:46	500
Methyl tert-butyl ether	140	U	500	140	ug/L			07/17/17 11:46	500
Methylcyclohexane	230	U	500	230	ug/L			07/17/17 11:46	500
Methylene Chloride	270	U	500	270	ug/L			07/17/17 11:46	500

Client Sample ID: EW-1-MID-071217

Lab Sample ID: 240-82240-2

Date Collected: 07/12/17 08:30

Matrix: Water

Date Received: 07/13/17 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	120	U	500	120	ug/L			07/17/17 11:46	500
Tetrachloroethene	150	U	500	150	ug/L			07/17/17 11:46	500
Toluene	120	U	500	120	ug/L			07/17/17 11:46	500
trans-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 11:46	500
trans-1,3-Dichloropropene	160	U	500	160	ug/L			07/17/17 11:46	500
Trichloroethene	**21000**		500	170	ug/L			07/17/17 11:46	500
Trichlorofluoromethane	250	U	500	250	ug/L			07/17/17 11:46	500
Vinyl chloride	230	U	500	230	ug/L			07/17/17 11:46	500
Xylenes, Total	120	U	1000	120	ug/L			07/17/17 11:46	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*73 - 120*		*07/17/17 11:46*	*500*
Dibromofluoromethane (Surr)	*84*		*69 - 124*		*07/17/17 11:46*	*500*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*07/17/17 11:46*	*500*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*		*07/17/17 11:46*	*500*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**38**		33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	**12**		12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	**26**		21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**430**		100	25	ug/L		07/17/17 14:00	07/18/17 13:52	1
Manganese	**100**		15	5.1	ug/L		07/17/17 14:00	07/18/17 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**3.1**	**J**	5.0	2.6	mg/L			07/20/17 10:54	1
Bromide	**0.32**	**J**	0.50	0.044	mg/L			07/13/17 17:57	1
Nitrite as N	**0.039**	**J**	0.10	0.014	mg/L			07/13/17 17:57	1
Nitrate as N	**1.1**		0.10	0.014	mg/L			07/13/17 17:57	1
Sulfate	**14**		1.0	0.35	mg/L			07/13/17 17:57	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**190**		10	7.8	mg/L			07/18/17 10:38	1

Client Sample ID: EW-1-END-071217

Lab Sample ID: 240-82240-3

Date Collected: 07/12/17 11:00

Matrix: Water

Date Received: 07/13/17 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	120	U	500	120	ug/L			07/17/17 12:09	500
1,1,2,2-Tetrachloroethane	160	U	500	160	ug/L			07/17/17 12:09	500
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210	ug/L			07/17/17 12:09	500
1,1,2-Trichloroethane	170	U	500	170	ug/L			07/17/17 12:09	500
1,1-Dichloroethane	130	U	500	130	ug/L			07/17/17 12:09	500
1,1-Dichloroethene	140	U	500	140	ug/L			07/17/17 12:09	500

Client Sample ID: EW-1-END-071217

Date Collected: 07/12/17 11:00
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	140	U	500	140	ug/L			07/17/17 12:09	500
1,2-Dibromo-3-Chloropropane	240	U	1000	240	ug/L			07/17/17 12:09	500
Ethylene Dibromide	120	U	500	120	ug/L			07/17/17 12:09	500
1,2-Dichlorobenzene	130	U	500	130	ug/L			07/17/17 12:09	500
1,2-Dichloroethane	150	U	500	150	ug/L			07/17/17 12:09	500
1,2-Dichloropropane	150	U	500	150	ug/L			07/17/17 12:09	500
1,3-Dichlorobenzene	160	U	500	160	ug/L			07/17/17 12:09	500
1,4-Dichlorobenzene	120	U	500	120	ug/L			07/17/17 12:09	500
2-Butanone (MEK)	510	U	5000	510	ug/L			07/17/17 12:09	500
2-Hexanone	620	U	5000	620	ug/L			07/17/17 12:09	500
4-Methyl-2-pentanone (MIBK)	360	U	5000	360	ug/L			07/17/17 12:09	500
Acetone	880	U	5000	880	ug/L			07/17/17 12:09	500
Benzene	140	U	500	140	ug/L			07/17/17 12:09	500
Dichlorobromomethane	150	U	500	150	ug/L			07/17/17 12:09	500
Bromoform	220	U	500	220	ug/L			07/17/17 12:09	500
Bromomethane	210	U	500	210	ug/L			07/17/17 12:09	500
Carbon disulfide	170	U	500	170	ug/L			07/17/17 12:09	500
Carbon tetrachloride	180	U	500	180	ug/L			07/17/17 12:09	500
Chlorobenzene	160	U	500	160	ug/L			07/17/17 12:09	500
Chloroethane	210	U	500	210	ug/L			07/17/17 12:09	500
Chloroform	160	U	500	160	ug/L			07/17/17 12:09	500
Chloromethane	220	U	500	220	ug/L			07/17/17 12:09	500
cis-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 12:09	500
cis-1,3-Dichloropropene	130	U	500	130	ug/L			07/17/17 12:09	500
Cyclohexane	220	U	500	220	ug/L			07/17/17 12:09	500
Chlorodibromomethane	130	U	500	130	ug/L			07/17/17 12:09	500
Dichlorodifluoromethane	250	U	500	250	ug/L			07/17/17 12:09	500
Ethylbenzene	130	U	500	130	ug/L			07/17/17 12:09	500
Isopropylbenzene	110	U	500	110	ug/L			07/17/17 12:09	500
Methyl acetate	720	U	5000	720	ug/L			07/17/17 12:09	500
Methyl tert-butyl ether	140	U	500	140	ug/L			07/17/17 12:09	500
Methylcyclohexane	230	U	500	230	ug/L			07/17/17 12:09	500
Methylene Chloride	270	U	500	270	ug/L			07/17/17 12:09	500
Styrene	120	U	500	120	ug/L			07/17/17 12:09	500
Tetrachloroethene	150	U	500	150	ug/L			07/17/17 12:09	500
Toluene	120	U	500	120	ug/L			07/17/17 12:09	500
trans-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 12:09	500
trans-1,3-Dichloropropene	160	U	500	160	ug/L			07/17/17 12:09	500
Trichloroethene	**21000**		500	170	ug/L			07/17/17 12:09	500
Trichlorofluoromethane	250	U	500	250	ug/L			07/17/17 12:09	500
Vinyl chloride	230	U	500	230	ug/L			07/17/17 12:09	500
Xylenes, Total	120	U	1000	120	ug/L			07/17/17 12:09	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/17/17 12:09*	*500*
Dibromofluoromethane (Surr)	*83*		*69 - 124*		*07/17/17 12:09*	*500*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*07/17/17 12:09*	*500*
1,2-Dichloroethane-d4 (Surr)	*78*		*61 - 138*		*07/17/17 12:09*	*500*

Client Sample ID: EW-1-END-071217

Lab Sample ID: 240-82240-3

Date Collected: 07/12/17 11:00

Matrix: Water

Date Received: 07/13/17 10:15

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	38		33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	12		12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	26		21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	450		100	25	ug/L		07/17/17 14:00	07/18/17 14:25	1
Manganese	98		15	5.1	ug/L		07/17/17 14:00	07/18/17 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	3.2	J	5.0	2.6	mg/L			07/20/17 11:01	1
Bromide	0.32	J	0.50	0.044	mg/L			07/13/17 18:59	1
Nitrite as N	0.044	J	0.10	0.014	mg/L			07/13/17 18:59	1
Nitrate as N	1.1		0.10	0.014	mg/L			07/13/17 18:59	1
Sulfate	15		1.0	0.35	mg/L			07/13/17 18:59	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	200		10	7.8	mg/L			07/18/17 10:38	1

Client Sample ID: EW-1-FINAL-071217

Lab Sample ID: 240-82240-4

Date Collected: 07/12/17 13:10

Matrix: Water

Date Received: 07/13/17 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	120	U	500	120	ug/L			07/17/17 12:32	500
1,1,2,2-Tetrachloroethane	160	U	500	160	ug/L			07/17/17 12:32	500
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210	ug/L			07/17/17 12:32	500
1,1,2-Trichloroethane	170	U	500	170	ug/L			07/17/17 12:32	500
1,1-Dichloroethane	130	U	500	130	ug/L			07/17/17 12:32	500
1,1-Dichloroethene	140	U	500	140	ug/L			07/17/17 12:32	500
1,2,4-Trichlorobenzene	140	U	500	140	ug/L			07/17/17 12:32	500
1,2-Dibromo-3-Chloropropane	240	U	1000	240	ug/L			07/17/17 12:32	500
Ethylene Dibromide	120	U	500	120	ug/L			07/17/17 12:32	500
1,2-Dichlorobenzene	130	U	500	130	ug/L			07/17/17 12:32	500
1,2-Dichloroethane	150	U	500	150	ug/L			07/17/17 12:32	500
1,2-Dichloropropane	150	U	500	150	ug/L			07/17/17 12:32	500
1,3-Dichlorobenzene	160	U	500	160	ug/L			07/17/17 12:32	500
1,4-Dichlorobenzene	120	U	500	120	ug/L			07/17/17 12:32	500
2-Butanone (MEK)	510	U	5000	510	ug/L			07/17/17 12:32	500
2-Hexanone	620	U	5000	620	ug/L			07/17/17 12:32	500
4-Methyl-2-pentanone (MIBK)	360	U	5000	360	ug/L			07/17/17 12:32	500
Acetone	880	U	5000	880	ug/L			07/17/17 12:32	500
Benzene	140	U	500	140	ug/L			07/17/17 12:32	500
Dichlorobromomethane	150	U	500	150	ug/L			07/17/17 12:32	500
Bromoform	220	U	500	220	ug/L			07/17/17 12:32	500
Bromomethane	210	U	500	210	ug/L			07/17/17 12:32	500
Carbon disulfide	170	U	500	170	ug/L			07/17/17 12:32	500
Carbon tetrachloride	180	U	500	180	ug/L			07/17/17 12:32	500

Client Sample ID: EW-1-FINAL-071217

Date Collected: 07/12/17 13:10
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	160	U	500	160	ug/L			07/17/17 12:32	500
Chloroethane	210	U	500	210	ug/L			07/17/17 12:32	500
Chloroform	160	U	500	160	ug/L			07/17/17 12:32	500
Chloromethane	220	U	500	220	ug/L			07/17/17 12:32	500
cis-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 12:32	500
cis-1,3-Dichloropropene	130	U	500	130	ug/L			07/17/17 12:32	500
Cyclohexane	220	U	500	220	ug/L			07/17/17 12:32	500
Chlorodibromomethane	130	U	500	130	ug/L			07/17/17 12:32	500
Dichlorodifluoromethane	250	U	500	250	ug/L			07/17/17 12:32	500
Ethylbenzene	130	U	500	130	ug/L			07/17/17 12:32	500
Isopropylbenzene	110	U	500	110	ug/L			07/17/17 12:32	500
Methyl acetate	720	U	5000	720	ug/L			07/17/17 12:32	500
Methyl tert-butyl ether	140	U	500	140	ug/L			07/17/17 12:32	500
Methylcyclohexane	230	U	500	230	ug/L			07/17/17 12:32	500
Methylene Chloride	270	U	500	270	ug/L			07/17/17 12:32	500
Styrene	120	U	500	120	ug/L			07/17/17 12:32	500
Tetrachloroethene	150	U	500	150	ug/L			07/17/17 12:32	500
Toluene	120	U	500	120	ug/L			07/17/17 12:32	500
trans-1,2-Dichloroethene	150	U	500	150	ug/L			07/17/17 12:32	500
trans-1,3-Dichloropropene	160	U	500	160	ug/L			07/17/17 12:32	500
Trichloroethene	**21000**		500	170	ug/L			07/17/17 12:32	500
Trichlorofluoromethane	250	U	500	250	ug/L			07/17/17 12:32	500
Vinyl chloride	230	U	500	230	ug/L			07/17/17 12:32	500
Xylenes, Total	120	U	1000	120	ug/L			07/17/17 12:32	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*73 - 120*		*07/17/17 12:32*	*500*
Dibromofluoromethane (Surr)	*87*		*69 - 124*		*07/17/17 12:32*	*500*
4-Bromofluorobenzene (Surr)	*93*		*69 - 120*		*07/17/17 12:32*	*500*
1,2-Dichloroethane-d4 (Surr)	*81*		*61 - 138*		*07/17/17 12:32*	*500*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**38**		33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	**12**		12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	**26**		21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1100**		100	25	ug/L		07/17/17 14:00	07/18/17 14:51	1
Manganese	**94**		15	5.1	ug/L		07/17/17 14:00	07/18/17 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**3.1**	**J**	5.0	2.6	mg/L			07/20/17 11:08	1
Bromide	**0.32**	**J**	0.50	0.044	mg/L			07/13/17 19:19	1
Nitrite as N	**0.043**	**J**	0.10	0.014	mg/L			07/13/17 19:19	1
Nitrate as N	**1.1**		0.10	0.014	mg/L			07/13/17 19:19	1
Sulfate	**15**		1.0	0.35	mg/L			07/13/17 19:19	1

Client Sample ID: EW-1-FINAL-071217

Lab Sample ID: 240-82240-4

Date Collected: 07/12/17 13:10

Matrix: Water

Date Received: 07/13/17 10:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**280**		10	7.8	mg/L			07/18/17 10:38	1

Client Sample ID: MRC-SW-15A-16A-071217

Lab Sample ID: 240-82240-5

Date Collected: 07/12/17 14:00

Matrix: Water

Date Received: 07/13/17 10:15

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**120**		100	25	ug/L		07/17/17 14:00	07/18/17 14:56	1
Manganese	**52**		15	5.1	ug/L		07/17/17 14:00	07/18/17 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**45**		5.0	2.6	mg/L			07/20/17 11:17	1
Bromide	**3.9**		0.50	0.044	mg/L			07/13/17 19:40	1
Nitrite as N	0.014	U	0.10	0.014	mg/L			07/13/17 19:40	1
Nitrate as N	**0.098**	**J**	0.10	0.014	mg/L			07/13/17 19:40	1
Sulfate	**130**		1.0	0.35	mg/L			07/13/17 19:40	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**1500**		20	16	mg/L			07/18/17 10:38	1

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

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	1.0	0.23	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.32	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.41	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.34	ug/L	8260C
1,1-Dichloroethane	1.0	0.25	ug/L	8260C
1,1-Dichloroethene	1.0	0.27	ug/L	8260C
1,2,4-Trichlorobenzene	1.0	0.27	ug/L	8260C
1,2-Dibromo-3-Chloropropane	2.0	0.47	ug/L	8260C
1,2-Dichlorobenzene	1.0	0.26	ug/L	8260C
1,2-Dichloroethane	1.0	0.30	ug/L	8260C
1,2-Dichloropropane	1.0	0.30	ug/L	8260C
1,3-Dichlorobenzene	1.0	0.32	ug/L	8260C
1,4-Dichlorobenzene	1.0	0.23	ug/L	8260C
2-Butanone (MEK)	10	1.0	ug/L	8260C
2-Hexanone	10	1.2	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	10	0.71	ug/L	8260C
Acetone	10	1.8	ug/L	8260C
Benzene	1.0	0.28	ug/L	8260C
Bromoform	1.0	0.43	ug/L	8260C
Bromomethane	1.0	0.42	ug/L	8260C
Carbon disulfide	1.0	0.34	ug/L	8260C
Carbon tetrachloride	1.0	0.35	ug/L	8260C
Chlorobenzene	1.0	0.32	ug/L	8260C
Chlorodibromomethane	1.0	0.25	ug/L	8260C
Chloroethane	1.0	0.41	ug/L	8260C
Chloroform	1.0	0.31	ug/L	8260C
Chloromethane	1.0	0.43	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.26	ug/L	8260C
Cyclohexane	1.0	0.44	ug/L	8260C
Dichlorobromomethane	1.0	0.30	ug/L	8260C
Dichlorodifluoromethane	1.0	0.50	ug/L	8260C
Ethylbenzene	1.0	0.26	ug/L	8260C
Ethylene Dibromide	1.0	0.23	ug/L	8260C
Isopropylbenzene	1.0	0.21	ug/L	8260C
Methyl acetate	10	1.4	ug/L	8260C
Methyl tert-butyl ether	1.0	0.27	ug/L	8260C
Methylcyclohexane	1.0	0.45	ug/L	8260C
Methylene Chloride	1.0	0.53	ug/L	8260C
Styrene	1.0	0.23	ug/L	8260C
Tetrachloroethene	1.0	0.30	ug/L	8260C
Toluene	1.0	0.23	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.31	ug/L	8260C
Trichloroethene	1.0	0.33	ug/L	8260C
Trichlorofluoromethane	1.0	0.50	ug/L	8260C
Vinyl chloride	1.0	0.45	ug/L	8260C
Xylenes, Total	2.0	0.24	ug/L	8260C

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	RL	MDL	Units	Method
Calcium hardness as calcium carbonate	12	12	mg/L	2340B-1997
Hardness as calcium carbonate	33	33	mg/L	2340B-1997
Magnesium hardness as calcium carbonate	21	21	mg/L	2340B-1997

Method: 6010C - Metals (ICP) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units	Method
Iron	100	25	ug/L	6010C
Manganese	15	5.1	ug/L	6010C

General Chemistry

Analyte	RL	MDL	Units	Method
Alkalinity	5.0	2.6	mg/L	2320B-1997
Bromide	0.50	0.044	mg/L	300.0
Nitrate as N	0.10	0.014	mg/L	300.0
Nitrite as N	0.10	0.014	mg/L	300.0
Sulfate	1.0	0.35	mg/L	300.0
Salinity	2.0	2.0	No Unit	SM 2520B
Total Dissolved Solids	10	7.8	mg/L	SM 2540C

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	12DCE
Lab Sample ID	Client Sample ID	(73-120)	(69-124)	(69-120)	(61-138)
240-82240-1	TB-071217	108	88	94	82
240-82240-2	EW-1-MID-071217	104	84	90	79
240-82240-2 MS	EW-1-MID-071217	108	84	97	80
240-82240-2 MSD	EW-1-MID-071217	111	86	99	80
240-82240-3	EW-1-END-071217	103	83	90	78
240-82240-4	EW-1-FINAL-071217	106	87	93	81
LCS 240-287405/4	Lab Control Sample	107	84	97	79
MB 240-287405/7	Method Blank	102	82	92	78

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-287405/7
Matrix: Water
Analysis Batch: 287405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 10:44	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 10:44	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 10:44	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 10:44	1
Acetone	1.8	U	10	1.8	ug/L			07/17/17 10:44	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 10:44	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 10:44	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/17/17 10:44	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 10:44	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/17/17 10:44	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 10:44	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 10:44	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 10:44	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 10:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*102*		*73 - 120*		*07/17/17 10:44*	*1*
Dibromofluoromethane (Surr)	*82*		*69 - 124*		*07/17/17 10:44*	*1*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*07/17/17 10:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*78*		*61 - 138*		*07/17/17 10:44*	*1*

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	16.0		ug/L		80	64 - 147
1,1,2,2-Tetrachloroethane	20.0	22.7		ug/L		114	58 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7		ug/L		89	65 - 144
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	76 - 121
1,1-Dichloroethane	20.0	18.5		ug/L		92	74 - 120
1,1-Dichloroethene	20.0	16.7		ug/L		83	65 - 127
1,2,4-Trichlorobenzene	20.0	19.7		ug/L		98	34 - 141
1,2-Dibromo-3-Chloropropane	20.0	20.7		ug/L		104	50 - 130
Ethylene Dibromide	20.0	20.7		ug/L		104	80 - 120
1,2-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	16.0		ug/L		80	68 - 133
1,2-Dichloropropane	20.0	20.3		ug/L		102	78 - 127
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
2-Butanone (MEK)	40.0	35.4		ug/L		89	43 - 149
2-Hexanone	40.0	42.0		ug/L		105	28 - 169
4-Methyl-2-pentanone (MIBK)	40.0	37.2		ug/L		93	53 - 144
Acetone	40.0	25.1		ug/L		63	35 - 131
Benzene	20.0	18.6		ug/L		93	79 - 120
Dichlorobromomethane	20.0	16.9		ug/L		84	79 - 125
Bromoform	20.0	18.9		ug/L		95	55 - 145
Bromomethane	20.0	16.3		ug/L		81	17 - 158
Carbon disulfide	20.0	18.1		ug/L		90	49 - 141
Carbon tetrachloride	20.0	15.4		ug/L		77	55 - 171
Chlorobenzene	20.0	20.4		ug/L		102	80 - 120
Chloroethane	20.0	18.7		ug/L		94	10 - 149
Chloroform	20.0	16.6		ug/L		83	80 - 120
Chloromethane	20.0	17.7		ug/L		89	59 - 124
cis-1,2-Dichloroethene	20.0	17.4		ug/L		87	77 - 120
cis-1,3-Dichloropropene	20.0	18.7		ug/L		94	75 - 120
Cyclohexane	20.0	18.6		ug/L		93	66 - 135
Chlorodibromomethane	20.0	20.0		ug/L		100	64 - 129
Dichlorodifluoromethane	20.0	17.4		ug/L		87	42 - 141
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Isopropylbenzene	20.0	18.8		ug/L		94	80 - 128
Methyl acetate	40.0	37.3		ug/L		93	63 - 137
Methyl tert-butyl ether	20.0	17.0		ug/L		85	73 - 120
Methylcyclohexane	20.0	15.7		ug/L		79	63 - 141
Methylene Chloride	20.0	16.9		ug/L		85	64 - 140
Styrene	20.0	19.8		ug/L		99	80 - 121
Tetrachloroethene	20.0	20.2		ug/L		101	80 - 122
Toluene	20.0	21.0		ug/L		105	78 - 120
trans-1,2-Dichloroethene	20.0	17.9		ug/L		89	74 - 124

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

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	20.7		ug/L		104	67 - 120
Trichloroethene	20.0	17.4		ug/L		87	76 - 124
Trichlorofluoromethane	20.0	15.2		ug/L		76	27 - 176
Vinyl chloride	20.0	18.1		ug/L		90	65 - 124
Xylenes, Total	40.0	40.2		ug/L		101	80 - 120
m-Xylene & p-Xylene	20.0	20.1		ug/L		100	80 - 120
o-Xylene	20.0	20.1		ug/L		100	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*84*		*69 - 124*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287405

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	120	U	10000	7930		ug/L		79	57 - 156
1,1,2,2-Tetrachloroethane	160	U	10000	11400		ug/L		114	51 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	10000	9490		ug/L		95	58 - 137
1,1,2-Trichloroethane	170	U	10000	10600		ug/L		106	68 - 127
1,1-Dichloroethane	130	U	10000	8780		ug/L		88	69 - 122
1,1-Dichloroethene	140	U	10000	8500		ug/L		85	62 - 127
1,2,4-Trichlorobenzene	140	U	10000	9080		ug/L		91	26 - 138
1,2-Dibromo-3-Chloropropane	240	U	10000	9730		ug/L		97	48 - 130
Ethylene Dibromide	120	U	10000	10100		ug/L		101	73 - 121
1,2-Dichlorobenzene	130	U	10000	9840		ug/L		98	70 - 120
1,2-Dichloroethane	150	U	10000	7590		ug/L		76	64 - 138
1,2-Dichloropropane	150	U	10000	9870		ug/L		99	72 - 131
1,3-Dichlorobenzene	160	U	10000	9590		ug/L		96	71 - 120
1,4-Dichlorobenzene	120	U	10000	9660		ug/L		97	72 - 120
2-Butanone (MEK)	510	U	20000	17000		ug/L		85	34 - 153
2-Hexanone	620	U	20000	19400		ug/L		97	21 - 184
4-Methyl-2-pentanone (MIBK)	360	U	20000	17700		ug/L		88	53 - 147
Acetone	880	U	20000	12000		ug/L		60	19 - 133
Benzene	140	U	10000	8940		ug/L		89	69 - 127
Dichlorobromomethane	150	U	10000	8080		ug/L		81	75 - 128
Bromoform	220	U	10000	8700		ug/L		87	61 - 135
Bromomethane	210	U	10000	7330		ug/L		73	10 - 148
Carbon disulfide	170	U	10000	8740		ug/L		87	46 - 143
Carbon tetrachloride	180	U	10000	7820		ug/L		78	53 - 175
Chlorobenzene	160	U	10000	9740		ug/L		97	76 - 120
Chloroethane	210	U	10000	8950		ug/L		90	10 - 141
Chloroform	160	U	10000	7910		ug/L		79	74 - 125
Chloromethane	220	U	10000	8350		ug/L		83	34 - 127

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

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287405

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	150	U	10000	8530		ug/L		85	69 - 127
cis-1,3-Dichloropropene	130	U	10000	8820		ug/L		88	68 - 120
Cyclohexane	220	U	10000	10000		ug/L		100	56 - 135
Chlorodibromomethane	130	U	10000	9360		ug/L		94	62 - 131
Dichlorodifluoromethane	250	U	10000	9180		ug/L		92	45 - 130
Ethylbenzene	130	U	10000	9930		ug/L		99	72 - 121
Isopropylbenzene	110	U	10000	9120		ug/L		91	70 - 132
Methyl acetate	720	U	20000	18300		ug/L		92	52 - 139
Methyl tert-butyl ether	140	U	10000	7970		ug/L		80	67 - 125
Methylcyclohexane	230	U	10000	8860		ug/L		89	46 - 139
Methylene Chloride	270	U	10000	8150		ug/L		82	52 - 137
Styrene	120	U	10000	9490		ug/L		95	74 - 125
Tetrachloroethene	150	U	10000	10600		ug/L		106	69 - 126
Toluene	120	U	10000	10100		ug/L		101	69 - 125
trans-1,2-Dichloroethene	150	U	10000	8730		ug/L		87	66 - 131
trans-1,3-Dichloropropene	160	U	10000	9640		ug/L		96	59 - 120
Trichloroethene	21000		10000	29200		ug/L		80	68 - 129
Trichlorofluoromethane	250	U	10000	7610		ug/L		76	28 - 172
Vinyl chloride	230	U	10000	9020		ug/L		90	55 - 123
Xylenes, Total	120	U	20000	19300		ug/L		97	71 - 122
m-Xylene & p-Xylene	120	U	10000	9830		ug/L		98	70 - 121
o-Xylene	140	U	10000	9480		ug/L		95	71 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*73 - 120*
Dibromofluoromethane (Surr)	*84*		*69 - 124*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 138*

Lab Sample ID: 240-82240-2 MSD
Matrix: Water
Analysis Batch: 287405

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	120	U	10000	8510		ug/L		85	57 - 156	7	13
1,1,2,2-Tetrachloroethane	160	U	10000	11800		ug/L		118	51 - 123	4	17
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	10000	8840		ug/L		88	58 - 137	7	35
1,1,2-Trichloroethane	170	U	10000	11600		ug/L		116	68 - 127	9	11
1,1-Dichloroethane	130	U	10000	9470		ug/L		95	69 - 122	8	11
1,1-Dichloroethene	140	U	10000	8840		ug/L		88	62 - 127	4	14
1,2,4-Trichlorobenzene	140	U	10000	9860		ug/L		99	26 - 138	8	35
1,2-Dibromo-3-Chloropropane	240	U	10000	10100		ug/L		101	48 - 130	4	31
Ethylene Dibromide	120	U	10000	10700		ug/L		107	73 - 121	7	12
1,2-Dichlorobenzene	130	U	10000	10700		ug/L		107	70 - 120	9	19
1,2-Dichloroethane	150	U	10000	8180		ug/L		82	64 - 138	8	11
1,2-Dichloropropane	150	U	10000	10500		ug/L		105	72 - 131	6	12
1,3-Dichlorobenzene	160	U	10000	10400		ug/L		104	71 - 120	8	18

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

Lab Sample ID: 240-82240-2 MSD
Matrix: Water
Analysis Batch: 287405

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	120	U	10000	10300		ug/L		103	72 - 120	6	17
2-Butanone (MEK)	510	U	20000	17600		ug/L		88	34 - 153	4	23
2-Hexanone	620	U	20000	20700		ug/L		103	21 - 184	6	12
4-Methyl-2-pentanone (MIBK)	360	U	20000	18800		ug/L		94	53 - 147	6	16
Acetone	880	U	20000	12500		ug/L		63	19 - 133	4	35
Benzene	140	U	10000	9760		ug/L		98	69 - 127	9	10
Dichlorobromomethane	150	U	10000	8560		ug/L		86	75 - 128	6	13
Bromoform	220	U	10000	9520		ug/L		95	61 - 135	9	13
Bromomethane	210	U	10000	8200		ug/L		82	10 - 148	11	35
Carbon disulfide	170	U	10000	9270		ug/L		93	46 - 143	6	18
Carbon tetrachloride	180	U	10000	8100		ug/L		81	53 - 175	4	17
Chlorobenzene	160	U	10000	10800		ug/L		108	76 - 120	10	12
Chloroethane	210	U	10000	9350		ug/L		93	10 - 141	4	35
Chloroform	160	U	10000	8480		ug/L		85	74 - 125	7	11
Chloromethane	220	U	10000	9000		ug/L		90	34 - 127	8	25
cis-1,2-Dichloroethene	150	U	10000	9080		ug/L		91	69 - 127	6	11
cis-1,3-Dichloropropene	130	U	10000	9520		ug/L		95	68 - 120	8	13
Cyclohexane	220	U	10000	9470		ug/L		95	56 - 135	6	35
Chlorodibromomethane	130	U	10000	10100		ug/L		101	62 - 131	8	15
Dichlorodifluoromethane	250	U	10000	8310		ug/L		83	45 - 130	10	34
Ethylbenzene	130	U	10000	10800		ug/L		108	72 - 121	8	15
Isopropylbenzene	110	U	10000	9970		ug/L		100	70 - 132	9	16
Methyl acetate	720	U	20000	19000		ug/L		95	52 - 139	4	14
Methyl tert-butyl ether	140	U	10000	8550		ug/L		85	67 - 125	7	12
Methylcyclohexane	230	U	10000	7760		ug/L		78	46 - 139	13	35
Methylene Chloride	270	U	10000	8830		ug/L		88	52 - 137	8	12
Styrene	120	U	10000	10500		ug/L		105	74 - 125	10	14
Tetrachloroethene	150	U	10000	10900		ug/L		109	69 - 126	3	18
Toluene	120	U	10000	11100		ug/L		111	69 - 125	9	14
trans-1,2-Dichloroethene	150	U	10000	9280		ug/L		93	66 - 131	6	11
trans-1,3-Dichloropropene	160	U	10000	10500		ug/L		105	59 - 120	8	14
Trichloroethene	21000		10000	30400	E	ug/L		92	68 - 129	4	12
Trichlorofluoromethane	250	U	10000	7590		ug/L		76	28 - 172	0	26
Vinyl chloride	230	U	10000	9380		ug/L		94	55 - 123	4	12
Xylenes, Total	120	U	20000	21100		ug/L		106	71 - 122	9	14
m-Xylene & p-Xylene	120	U	10000	10700		ug/L		107	70 - 121	8	15
o-Xylene	140	U	10000	10400		ug/L		104	71 - 125	9	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*111*		*73 - 120*
Dibromofluoromethane (Surr)	*86*		*69 - 124*
4-Bromofluorobenzene (Surr)	*99*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 138*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-287479/1-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25	U	100	25	ug/L		07/17/17 14:00	07/18/17 13:44	1
Manganese	5.1	U	15	5.1	ug/L		07/17/17 14:00	07/18/17 13:44	1

Lab Sample ID: LCS 240-287479/2-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1000	1020		ug/L		102	80 - 120
Manganese	500	494		ug/L		99	80 - 120
Calcium	50000	50000		ug/L		100	80 - 120
Magnesium	50000	49700		ug/L		99	80 - 120

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287672

Client Sample ID: EW-1-MID-071217
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	430		1000	1420		ug/L		98	75 - 125
Manganese	100		500	610		ug/L		101	75 - 125
Calcium	4700	J	50000	54800		ug/L		100	75 - 125
Magnesium	6300		50000	55800		ug/L		99	75 - 125

Lab Sample ID: 240-82240-2 MSD
Matrix: Water
Analysis Batch: 287672

Client Sample ID: EW-1-MID-071217
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	430		1000	1430		ug/L		100	75 - 125	1	20
Manganese	100		500	606		ug/L		101	75 - 125	1	20
Calcium	4700	J	50000	54800		ug/L		100	75 - 125	0	20
Magnesium	6300		50000	56000		ug/L		99	75 - 125	0	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-288082/6
Matrix: Water
Analysis Batch: 288082

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/20/17 10:00	1

Lab Sample ID: LCS 240-288082/5
Matrix: Water
Analysis Batch: 288082

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	377	383		mg/L		102	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-287054/3
Matrix: Water
Analysis Batch: 287054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.044	U	0.50	0.044	mg/L			07/13/17 12:49	1
Sulfate	0.35	U	1.0	0.35	mg/L			07/13/17 12:49	1

Lab Sample ID: LCS 240-287054/4
Matrix: Water
Analysis Batch: 287054

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.5		mg/L		105	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287054

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.32	J	10.0	11.0		mg/L		106	80 - 120
Sulfate	14		50.0	64.3		mg/L		100	80 - 120

Lab Sample ID: 240-82240-2 MSD
Matrix: Water
Analysis Batch: 287054

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.32	J	10.0	10.7		mg/L		104	80 - 120	2	15
Sulfate	14		50.0	64.5		mg/L		101	80 - 120	0	15

Lab Sample ID: MB 240-287055/3
Matrix: Water
Analysis Batch: 287055

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U	0.10	0.014	mg/L			07/13/17 12:49	1
Nitrate as N	0.014	U	0.10	0.014	mg/L			07/13/17 12:49	1

Lab Sample ID: LCS 240-287055/4
Matrix: Water
Analysis Batch: 287055

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.51		mg/L		100	90 - 110
Nitrate as N	2.50	2.61		mg/L		105	90 - 110

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287055

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.039	J	2.50	2.73		mg/L		108	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-82240-2 MS
Matrix: Water
Analysis Batch: 287055

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.1		2.50	3.71		mg/L		105	80 - 120

Lab Sample ID: 240-82240-2 MSD
Matrix: Water
Analysis Batch: 287055

Client Sample ID: EW-1-MID-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.039	J	2.50	2.71		mg/L		107	80 - 120	1	15
Nitrate as N	1.1		2.50	3.65		mg/L		102	80 - 120	2	15

Method: SM 2520B - Salinity

Lab Sample ID: MB 180-217391/1
Matrix: Water
Analysis Batch: 217391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-287646/1
Matrix: Water
Analysis Batch: 287646

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			07/18/17 10:38	1

Lab Sample ID: LCS 240-287646/2
Matrix: Water
Analysis Batch: 287646

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	242	222		mg/L		92	80 - 120

Lab Sample ID: 240-82240-4 DU
Matrix: Water
Analysis Batch: 287646

Client Sample ID: EW-1-FINAL-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	280		346		mg/L		20	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

GC/MS VOA

Analysis Batch: 287405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-1	TB-071217	Total/NA	Water	8260C	
240-82240-2	EW-1-MID-071217	Total/NA	Water	8260C	
240-82240-3	EW-1-END-071217	Total/NA	Water	8260C	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	8260C	
MB 240-287405/7	Method Blank	Total/NA	Water	8260C	
LCS 240-287405/4	Lab Control Sample	Total/NA	Water	8260C	
240-82240-2 MS	EW-1-MID-071217	Total/NA	Water	8260C	
240-82240-2 MSD	EW-1-MID-071217	Total/NA	Water	8260C	

Metals

Prep Batch: 287479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total Recoverable	Water	3005A	
240-82240-3	EW-1-END-071217	Total Recoverable	Water	3005A	
240-82240-4	EW-1-FINAL-071217	Total Recoverable	Water	3005A	
240-82240-5	MRC-SW-15A-16A-071217	Total Recoverable	Water	3005A	
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-82240-2 MS	EW-1-MID-071217	Total Recoverable	Water	3005A	
240-82240-2 MSD	EW-1-MID-071217	Total Recoverable	Water	3005A	

Analysis Batch: 287672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total Recoverable	Water	6010C	287479
240-82240-3	EW-1-END-071217	Total Recoverable	Water	6010C	287479
240-82240-4	EW-1-FINAL-071217	Total Recoverable	Water	6010C	287479
240-82240-5	MRC-SW-15A-16A-071217	Total Recoverable	Water	6010C	287479
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	6010C	287479
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	6010C	287479
240-82240-2 MS	EW-1-MID-071217	Total Recoverable	Water	6010C	287479
240-82240-2 MSD	EW-1-MID-071217	Total Recoverable	Water	6010C	287479

Analysis Batch: 287913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total Recoverable	Water	2340B-1997	
240-82240-3	EW-1-END-071217	Total Recoverable	Water	2340B-1997	
240-82240-4	EW-1-FINAL-071217	Total Recoverable	Water	2340B-1997	

General Chemistry

Analysis Batch: 217391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total/NA	Water	SM 2520B	
240-82240-3	EW-1-END-071217	Total/NA	Water	SM 2520B	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	SM 2520B	
240-82240-5	MRC-SW-15A-16A-071217	Total/NA	Water	SM 2520B	
MB 180-217391/1	Method Blank	Total/NA	Water	SM 2520B	

General Chemistry (Continued)

Analysis Batch: 287054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total/NA	Water	300.0	
240-82240-3	EW-1-END-071217	Total/NA	Water	300.0	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	300.0	
240-82240-5	MRC-SW-15A-16A-071217	Total/NA	Water	300.0	
MB 240-287054/3	Method Blank	Total/NA	Water	300.0	
LCS 240-287054/4	Lab Control Sample	Total/NA	Water	300.0	
240-82240-2 MS	EW-1-MID-071217	Total/NA	Water	300.0	
240-82240-2 MSD	EW-1-MID-071217	Total/NA	Water	300.0	

Analysis Batch: 287055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total/NA	Water	300.0	
240-82240-3	EW-1-END-071217	Total/NA	Water	300.0	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	300.0	
240-82240-5	MRC-SW-15A-16A-071217	Total/NA	Water	300.0	
MB 240-287055/3	Method Blank	Total/NA	Water	300.0	
LCS 240-287055/4	Lab Control Sample	Total/NA	Water	300.0	
240-82240-2 MS	EW-1-MID-071217	Total/NA	Water	300.0	
240-82240-2 MSD	EW-1-MID-071217	Total/NA	Water	300.0	

Analysis Batch: 287646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total/NA	Water	SM 2540C	
240-82240-3	EW-1-END-071217	Total/NA	Water	SM 2540C	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	SM 2540C	
240-82240-5	MRC-SW-15A-16A-071217	Total/NA	Water	SM 2540C	
MB 240-287646/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-287646/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-82240-4 DU	EW-1-FINAL-071217	Total/NA	Water	SM 2540C	

Analysis Batch: 288082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82240-2	EW-1-MID-071217	Total/NA	Water	2320B-1997	
240-82240-3	EW-1-END-071217	Total/NA	Water	2320B-1997	
240-82240-4	EW-1-FINAL-071217	Total/NA	Water	2320B-1997	
240-82240-5	MRC-SW-15A-16A-071217	Total/NA	Water	2320B-1997	
MB 240-288082/6	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-288082/5	Lab Control Sample	Total/NA	Water	2320B-1997	

Client Sample ID: TB-071217
Date Collected: 07/12/17 00:00
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	287405	07/17/17 11:23	HMB	TAL CAN

Client Sample ID: EW-1-MID-071217
Date Collected: 07/12/17 08:30
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	287405	07/17/17 11:46	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 13:52	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	288082	07/20/17 10:54	JESW	TAL CAN
Total/NA	Analysis	300.0		1	287054	07/13/17 17:57	LKG	TAL CAN
Total/NA	Analysis	300.0		1	287055	07/13/17 17:57	LKG	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287646	07/18/17 10:38	JESW	TAL CAN

Client Sample ID: EW-1-END-071217
Date Collected: 07/12/17 11:00
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	287405	07/17/17 12:09	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 14:25	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	288082	07/20/17 11:01	JESW	TAL CAN
Total/NA	Analysis	300.0		1	287054	07/13/17 18:59	LKG	TAL CAN
Total/NA	Analysis	300.0		1	287055	07/13/17 18:59	LKG	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287646	07/18/17 10:38	JESW	TAL CAN

Client Sample ID: EW-1-FINAL-071217
Date Collected: 07/12/17 13:10
Date Received: 07/13/17 10:15

Lab Sample ID: 240-82240-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	287405	07/17/17 12:32	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 14:51	KLC	TAL CAN

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Client Sample ID: EW-1-FINAL-071217

Lab Sample ID: 240-82240-4

Date Collected: 07/12/17 13:10

Matrix: Water

Date Received: 07/13/17 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-1997		1	288082	07/20/17 11:08	JESW	TAL CAN
Total/NA	Analysis	300.0		1	287054	07/13/17 19:19	LKG	TAL CAN
Total/NA	Analysis	300.0		1	287055	07/13/17 19:19	LKG	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287646	07/18/17 10:38	JESW	TAL CAN

Client Sample ID: MRC-SW-15A-16A-071217

Lab Sample ID: 240-82240-5

Date Collected: 07/12/17 14:00

Matrix: Water

Date Received: 07/13/17 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 14:56	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	288082	07/20/17 11:17	JESW	TAL CAN
Total/NA	Analysis	300.0		1	287054	07/13/17 19:40	LKG	TAL CAN
Total/NA	Analysis	300.0		1	287055	07/13/17 19:40	LKG	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287646	07/18/17 10:38	JESW	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-17 *
Kansas	NELAP	7	E-10336	01-31-18
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17
Minnesota	NELAP	5	039-999-348	12-31-17
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-17 *
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-17 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18
West Virginia DEP	State Program	3	210	12-31-17
Wisconsin	State Program	5	999518190	08-31-17 *

Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
SM 2520B	Salinity	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block F

TestAmerica Job ID: 240-82240-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-82240-1	TB-071217	Water	07/12/17 00:00	07/13/17 10:15
240-82240-2	EW-1-MID-071217	Water	07/12/17 08:30	07/13/17 10:15
240-82240-3	EW-1-END-071217	Water	07/12/17 11:00	07/13/17 10:15
240-82240-4	EW-1-FINAL-071217	Water	07/12/17 13:10	07/13/17 10:15
240-82240-5	MRC-SW-15A-16A-071217	Water	07/12/17 14:00	07/13/17 10:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: A3UX16 Analysis Batch Number: 272263

Lab Sample ID: STD8260 240-272263/7 IC Client Sample ID:

Date Analyzed: 03/29/17 14:25 Lab File ID: UXM1389.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	11.32	Missed Peak	laveyt	03/29/17 15:11

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279524

Lab Sample ID: STD1 240-279524/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.38	Unspecified		
Sulfate	15.09	Unspecified		

Lab Sample ID: STD4 240-279524/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.37	Unspecified		
Sulfate	14.95	Unspecified		

Lab Sample ID: STD5 240-279524/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.36	Unspecified		
Sulfate	14.78	Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279525

Lab Sample ID: STD1 240-279525/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.18	Unspecified		
Nitrate as N	11.98	Unspecified		

Lab Sample ID: STD4 240-279525/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.95	Unspecified		

Lab Sample ID: STD5 240-279525/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.92	Unspecified		

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MT6500ICV_00038	12/14/17	06/14/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV1_00007	5 mL	Calcium	25000 ug/L
							Iron	12500 ug/L
							Magnesium	25000 ug/L
					MTTRICV3_00008	6 mL	Manganese	1500 ug/L
.MTTRICV1_00007	02/26/18	CPI, Lot 1095565			(Purchased Reagent)		Calcium	5000 mg/L
							Iron	2500 mg/L
							Magnesium	5000 mg/L
.MTTRICV3_00008	05/22/18	CPI, Lot 1099181			(Purchased Reagent)		Manganese	250 mg/L
MTAGSPIKEW_00075	01/11/18	07/11/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00007	2.5 mL	Ag	2500 ug/L
					MTTMHNO3_00123	50 mL	Nitric acid	50000000 ug/L
.MTAG_00007	12/08/18	HIGH PURITY STANDARDS, Lot 1713128			(Purchased Reagent)		Ag	1000 ug/mL
.MTTMHNO3_00123	06/26/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00065	09/29/17	06/24/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							As	100000 ug/L
							B	50000 ug/L
							Ba	100000 ug/L
							Be	2500 ug/L
							Cd	2500 ug/L
							Co	25000 ug/L
							Cr	10000 ug/L
							Cu	12500 ug/L
							Iron	50000 ug/L
							Manganese	25000 ug/L
							Ni	25000 ug/L
							Pb	25000 ug/L
							Se	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00119	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							As	2000 ug/mL
							B	1000 ug/mL
							Ba	2000 ug/mL
							Be	50 ug/mL
							Cd	50 ug/mL
							Co	500 ug/mL
							Cr	200 ug/mL
							Cu	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	1000 ug/mL
							Manganese	500 ug/mL
							Ni	500 ug/mL
							Pb	500 ug/mL
							Se	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00119	05/16/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00073	12/22/17	06/22/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00122	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Calcium	2500 mg/L
							K	2500 mg/L
							Magnesium	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00122	06/15/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Calcium	10000 ug/mL
							K	10000 ug/mL
							Magnesium	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00104	01/07/18	07/07/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00018	195 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
					MTICPCCV1_00019	5 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
.MTICPCCV1_00018	05/10/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
.MTICPCCV1_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
MTICPICSABW_00015	12/08/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							As	1000 ug/L
							B	500 ug/L
							Ba	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Be	500 ug/L
							Calcium	500000 ug/L
							Cd	1000 ug/L
							Co	500 ug/L
							Cr	500 ug/L
							Cu	500 ug/L
							Iron	200000 ug/L
							K	10000 ug/L
							Li	500 ug/L
							Magnesium	500000 ug/L
							Manganese	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Pb	1000 ug/L
							Se	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Ag	1000 ug/L
							Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							As	10000 ug/L
							B	5000 ug/L
							Ba	5000 ug/L
							Be	5000 ug/L
							Calcium	5000000 ug/L
							Cd	10000 ug/L
							Co	5000 ug/L
							Cr	5000 ug/L
							Cu	5000 ug/L
							Iron	2000000 ug/L
							K	100000 ug/L
							Li	5000 ug/L
							Magnesium	5000000 ug/L
							Manganese	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Pb	10000 ug/L
							Se	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Ag	10000 ug/L
							Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTTMHCL_00162	06/28/19	JT Baker(Avantor), Lot 0000162118			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00049	01/17/18	07/17/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Calcium	5000 ug/L
							Iron	200 ug/L
							Magnesium	5000 ug/L
							Manganese	15 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Calcium	100000 ug/L
							Iron	4000 ug/L
							Magnesium	100000 ug/L
							Manganese	300 ug/L
MTTRICSAW_00035	12/23/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00015	100 mL	Al	500000 ug/L
							Calcium	500000 ug/L
							Iron	200000 ug/L
							Magnesium	500000 ug/L
.MTTRICSA_00015	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
vm100is_stk_00031	07/17/17	01/17/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100is_stk_00033	11/24/17	05/24/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00025	09/14/17	03/14/17	MEOH, Lot 127999	100 mL	VM567650_00025	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00025	10/31/20	Restek, Lot A0114901			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm100ss_stk_00026	12/16/17	06/16/17	MEOH, Lot 147462	100 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00027	07/31/21		Restek, Lot A0120212		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00278	03/31/17	03/24/17	MEOH, Lot na	4 mL	vm50ss_stk_00072	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00072	06/07/17	12/07/16	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00190	03/31/17	03/27/17	MEOH, Lot na	4 mL	VMACROLSTD_00046	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00046	03/31/17	03/01/17	MEOH, Lot 0000127999	20 mL	VM568720_00018	250 uL	Acrolein	250 ug/mL
..VM568720_00018	03/31/17		restek, Lot A0122668		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASGW_00201	04/03/17	03/27/17	MEOH, Lot NA	4 mL	VMFASG_00056	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00056	04/22/17	03/22/17	MEOH, Lot 0000127999	50 mL	vm569722S_00002	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00002	05/31/18		Restek, Lot A0111273		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00218	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMFASG_00061	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VMFASG_00061	08/14/17	07/14/17	MEOH, Lot +181520000147462JF	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18	Restek, Lot A0113063			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00196	03/29/17	03/22/17	MEOH, Lot n/a	4 mL	VMRFASP_00036	4 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
.VMRFASP_00036	04/30/17	01/25/17	MEOH, Lot 0000127999	100 mL	VM569720S_00004	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
..VM569720S_00004	07/31/18		Restek, Lot A0120604		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
VMFASPW_00211	07/24/17	07/17/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00001	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmrgas_00194	04/04/17	03/28/17	MEOH, Lot 0000127999	10 mL	vm569722_00007	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00007	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00208	07/24/17	07/17/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00229	03/29/17	03/22/17	MEOH, Lot NA	4 mL	VMRPRIM_00021	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00021	05/31/17	01/31/17	MEOH, Lot 0000127999	50 mL	VM569720_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00001	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00009	0.5 mL	Vinyl acetate	50 ug/mL
..VM569720_00003	03/31/18		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00001	01/31/18		restek, Lot A0108172		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00009	05/31/17		Restek, Lot A0123104		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00244	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00001	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
WCICCALSOLN_00283	06/16/17	05/16/17	ELUENT, Lot 1847588	20 mL	WCICSOLNA1_00016	1.6 mL	Bromide	40 mg/L
							Chloride	200 mg/L
							Fluoride	10 mg/L
							Nitrate as N	10 mg/L
							Sulfate	200 mg/L
					WCICSOLNB1_00015	1.6 mL	Nitrite as N	10 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICCCV_00776	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA1_00016	1 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB1_00015	1 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICLCS_00614	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA2_00017	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00017	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00017	11/30/17	High Purity Standards, Lot 1632824			(Purchased Reagent)		Bromide	100 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
.WCICSOLNB2_00017	11/30/17	High Purity Standards, Lot 1632825			(Purchased Reagent)		Nitrite as N	25 ug/mL
WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCPHENOMINER_00017	07/31/19	PHENOVA-WIBBY, Lot 869-08			(Purchased Reagent)		Alkalinity	377 mg/L
WCPHENOVSOLID_00022	07/31/19	PHENOVA- WIBBY, Lot 8169-09			(Purchased Reagent)		Total Dissolved Solids	242 mg/L

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-071217	240-82240-1	88	82	108	94
EW-1-MID-071217	240-82240-2	84	79	104	90
EW-1-END-071217	240-82240-3	83	78	103	90
EW-1-FINAL-071217	240-82240-4	87	81	106	93
	MB 240-287405/7	82	78	102	92
	LCS 240-287405/4	84	79	107	97
EW-1-MID-071217 MS	240-82240-2 MS	84	80	108	97
EW-1-MID-071217 MSD	240-82240-2 MSD	86	80	111	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	16.0	80	64-147	
1,1,2,2-Tetrachloroethane	20.0	22.7	114	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7	89	65-144	
1,1,2-Trichloroethane	20.0	21.8	109	76-121	
1,1-Dichloroethane	20.0	18.5	92	74-120	
1,1-Dichloroethene	20.0	16.7	83	65-127	
1,2,4-Trichlorobenzene	20.0	19.7	98	34-141	
1,2-Dibromo-3-Chloropropane	20.0	20.7	104	50-130	
Ethylene Dibromide	20.0	20.7	104	80-120	
1,2-Dichlorobenzene	20.0	20.7	104	80-120	
1,2-Dichloroethane	20.0	16.0	80	68-133	
1,2-Dichloropropane	20.0	20.3	102	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	19.9	99	80-120	
2-Butanone (MEK)	40.0	35.4	89	43-149	
2-Hexanone	40.0	42.0	105	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	37.2	93	53-144	
Acetone	40.0	25.1	63	35-131	
Benzene	20.0	18.6	93	79-120	
Dichlorobromomethane	20.0	16.9	84	79-125	
Bromoform	20.0	18.9	95	55-145	
Bromomethane	20.0	16.3	81	17-158	
Carbon disulfide	20.0	18.1	90	49-141	
Carbon tetrachloride	20.0	15.4	77	55-171	
Chlorobenzene	20.0	20.4	102	80-120	
Chloroethane	20.0	18.7	94	10-149	
Chloroform	20.0	16.6	83	80-120	
Chloromethane	20.0	17.7	89	59-124	
cis-1,2-Dichloroethene	20.0	17.4	87	77-120	
cis-1,3-Dichloropropene	20.0	18.7	94	75-120	
Cyclohexane	20.0	18.6	93	66-135	
Chlorodibromomethane	20.0	20.0	100	64-129	
Dichlorodifluoromethane	20.0	17.4	87	42-141	
Ethylbenzene	20.0	20.5	103	80-120	
Isopropylbenzene	20.0	18.8	94	80-128	
Methyl acetate	40.0	37.3	93	63-137	
Methyl tert-butyl ether	20.0	17.0	85	73-120	
Methylcyclohexane	20.0	15.7	79	63-141	
Methylene Chloride	20.0	16.9	85	64-140	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	20.2	101	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	21.0	105	78-120	
trans-1,2-Dichloroethene	20.0	17.9	89	74-124	
trans-1,3-Dichloropropene	20.0	20.7	104	67-120	
Trichloroethene	20.0	17.4	87	76-124	
Trichlorofluoromethane	20.0	15.2	76	27-176	
Vinyl chloride	20.0	18.1	90	65-124	
Xylenes, Total	40.0	40.2	101	80-120	
m-Xylene & p-Xylene	20.0	20.1	100	80-120	
o-Xylene	20.0	20.1	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-2 MS Client ID: EW-1-MID-071217 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	120 U	7930	79	57-156	
1,1,2,2-Tetrachloroethane	10000	160 U	11400	114	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	210 U	9490	95	58-137	
1,1,2-Trichloroethane	10000	170 U	10600	106	68-127	
1,1-Dichloroethane	10000	130 U	8780	88	69-122	
1,1-Dichloroethene	10000	140 U	8500	85	62-127	
1,2,4-Trichlorobenzene	10000	140 U	9080	91	26-138	
1,2-Dibromo-3-Chloropropane	10000	240 U	9730	97	48-130	
Ethylene Dibromide	10000	120 U	10100	101	73-121	
1,2-Dichlorobenzene	10000	130 U	9840	98	70-120	
1,2-Dichloroethane	10000	150 U	7590	76	64-138	
1,2-Dichloropropane	10000	150 U	9870	99	72-131	
1,3-Dichlorobenzene	10000	160 U	9590	96	71-120	
1,4-Dichlorobenzene	10000	120 U	9660	97	72-120	
2-Butanone (MEK)	20000	510 U	17000	85	34-153	
2-Hexanone	20000	620 U	19400	97	21-184	
4-Methyl-2-pentanone (MIBK)	20000	360 U	17700	88	53-147	
Acetone	20000	880 U	12000	60	19-133	
Benzene	10000	140 U	8940	89	69-127	
Dichlorobromomethane	10000	150 U	8080	81	75-128	
Bromoform	10000	220 U	8700	87	61-135	
Bromomethane	10000	210 U	7330	73	10-148	
Carbon disulfide	10000	170 U	8740	87	46-143	
Carbon tetrachloride	10000	180 U	7820	78	53-175	
Chlorobenzene	10000	160 U	9740	97	76-120	
Chloroethane	10000	210 U	8950	90	10-141	
Chloroform	10000	160 U	7910	79	74-125	
Chloromethane	10000	220 U	8350	83	34-127	
cis-1,2-Dichloroethene	10000	150 U	8530	85	69-127	
cis-1,3-Dichloropropene	10000	130 U	8820	88	68-120	
Cyclohexane	10000	220 U	10000	100	56-135	
Chlorodibromomethane	10000	130 U	9360	94	62-131	
Dichlorodifluoromethane	10000	250 U	9180	92	45-130	
Ethylbenzene	10000	130 U	9930	99	72-121	
Isopropylbenzene	10000	110 U	9120	91	70-132	
Methyl acetate	20000	720 U	18300	92	52-139	
Methyl tert-butyl ether	10000	140 U	7970	80	67-125	
Methylcyclohexane	10000	230 U	8860	89	46-139	
Methylene Chloride	10000	270 U	8150	82	52-137	
Styrene	10000	120 U	9490	95	74-125	
Tetrachloroethene	10000	150 U	10600	106	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-2 MS Client ID: EW-1-MID-071217 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	10000	120 U	10100	101	69-125	
trans-1,2-Dichloroethene	10000	150 U	8730	87	66-131	
trans-1,3-Dichloropropene	10000	160 U	9640	96	59-120	
Trichloroethene	10000	21000	29200	80	68-129	
Trichlorofluoromethane	10000	250 U	7610	76	28-172	
Vinyl chloride	10000	230 U	9020	90	55-123	
Xylenes, Total	20000	120 U	19300	97	71-122	
m-Xylene & p-Xylene	10000	120 U	9830	98	70-121	
o-Xylene	10000	140 U	9480	95	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-2 MSD Client ID: EW-1-MID-071217 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	8510	85	7	13	57-156	
1,1,2,2-Tetrachloroethane	10000	11800	118	4	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	8840	88	7	35	58-137	
1,1,2-Trichloroethane	10000	11600	116	9	11	68-127	
1,1-Dichloroethane	10000	9470	95	8	11	69-122	
1,1-Dichloroethene	10000	8840	88	4	14	62-127	
1,2,4-Trichlorobenzene	10000	9860	99	8	35	26-138	
1,2-Dibromo-3-Chloropropane	10000	10100	101	4	31	48-130	
Ethylene Dibromide	10000	10700	107	7	12	73-121	
1,2-Dichlorobenzene	10000	10700	107	9	19	70-120	
1,2-Dichloroethane	10000	8180	82	8	11	64-138	
1,2-Dichloropropane	10000	10500	105	6	12	72-131	
1,3-Dichlorobenzene	10000	10400	104	8	18	71-120	
1,4-Dichlorobenzene	10000	10300	103	6	17	72-120	
2-Butanone (MEK)	20000	17600	88	4	23	34-153	
2-Hexanone	20000	20700	103	6	12	21-184	
4-Methyl-2-pentanone (MIBK)	20000	18800	94	6	16	53-147	
Acetone	20000	12500	63	4	35	19-133	
Benzene	10000	9760	98	9	10	69-127	
Dichlorobromomethane	10000	8560	86	6	13	75-128	
Bromoform	10000	9520	95	9	13	61-135	
Bromomethane	10000	8200	82	11	35	10-148	
Carbon disulfide	10000	9270	93	6	18	46-143	
Carbon tetrachloride	10000	8100	81	4	17	53-175	
Chlorobenzene	10000	10800	108	10	12	76-120	
Chloroethane	10000	9350	93	4	35	10-141	
Chloroform	10000	8480	85	7	11	74-125	
Chloromethane	10000	9000	90	8	25	34-127	
cis-1,2-Dichloroethene	10000	9080	91	6	11	69-127	
cis-1,3-Dichloropropene	10000	9520	95	8	13	68-120	
Cyclohexane	10000	9470	95	6	35	56-135	
Chlorodibromomethane	10000	10100	101	8	15	62-131	
Dichlorodifluoromethane	10000	8310	83	10	34	45-130	
Ethylbenzene	10000	10800	108	8	15	72-121	
Isopropylbenzene	10000	9970	100	9	16	70-132	
Methyl acetate	20000	19000	95	4	14	52-139	
Methyl tert-butyl ether	10000	8550	85	7	12	67-125	
Methylcyclohexane	10000	7760	78	13	35	46-139	
Methylene Chloride	10000	8830	88	8	12	52-137	
Styrene	10000	10500	105	10	14	74-125	
Tetrachloroethene	10000	10900	109	3	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-2 MSD Client ID: EW-1-MID-071217 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	10000	11100	111	9	14	69-125	
trans-1,2-Dichloroethene	10000	9280	93	6	11	66-131	
trans-1,3-Dichloropropene	10000	10500	105	8	14	59-120	
Trichloroethene	10000	30400	92	4	12	68-129	E
Trichlorofluoromethane	10000	7590	76	0	26	28-172	
Vinyl chloride	10000	9380	94	4	12	55-123	
Xylenes, Total	20000	21100	106	9	14	71-122	
m-Xylene & p-Xylene	10000	10700	107	8	15	70-121	
o-Xylene	10000	10400	104	9	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab File ID: UXM4616.D Lab Sample ID: MB 240-287405/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/17/2017 10:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-287405/4	UXM4613.D	07/17/2017 09:34
TB-071217	240-82240-1	UXM4617.D	07/17/2017 11:23
EW-1-MID-071217	240-82240-2	UXM4618.D	07/17/2017 11:46
EW-1-END-071217	240-82240-3	UXM4619.D	07/17/2017 12:09
EW-1-FINAL-071217	240-82240-4	UXM4620.D	07/17/2017 12:32
EW-1-MID-071217 MS	240-82240-2 MS	UXM4625.D	07/17/2017 14:43
EW-1-MID-071217 MSD	240-82240-2 MSD	UXM4626.D	07/17/2017 15:06

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272263/21	UXM1403.D	03/29/2017	19:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab File ID: BFB5335.D BFB Injection Date: 07/17/2017

Instrument ID: A3UX16 BFB Injection Time: 08:29

Analysis Batch No.: 287405

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.8	
75	30.0 - 60.0 % of mass 95	44.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.9) 1
174	50.0 - 120.00 % of mass 95	74.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.2) 1
176	95.0 - 101.0 % of mass 174	72.5	(97.5) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-287405/3	UXM4612.D	07/17/2017	09:11
	LCS 240-287405/4	UXM4613.D	07/17/2017	09:34
	CCV 240-287405/5	UXM4614.D	07/17/2017	09:57
	MB 240-287405/7	UXM4616.D	07/17/2017	10:44
TB-071217	240-82240-1	UXM4617.D	07/17/2017	11:23
EW-1-MID-071217	240-82240-2	UXM4618.D	07/17/2017	11:46
EW-1-END-071217	240-82240-3	UXM4619.D	07/17/2017	12:09
EW-1-FINAL-071217	240-82240-4	UXM4620.D	07/17/2017	12:32
EW-1-MID-071217 MS	240-82240-2 MS	UXM4625.D	07/17/2017	14:43
EW-1-MID-071217 MSD	240-82240-2 MSD	UXM4626.D	07/17/2017	15:06

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272263/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-287405/3		1020980	5.25	740336	7.93	404752	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Sample No.: CCVIS 240-287405/3 Date Analyzed: 07/17/2017 09:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4612.D Heated Purge: (Y/N) N

Calibration ID: 40354

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1020980	5.25	740336	7.93	404752	10.16
UPPER LIMIT		2041960	5.75	1480672	8.43	809504	10.66
LOWER LIMIT		510490	4.75	370168	7.43	202376	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-287405/4		933741	5.24	673259	7.92	360406	10.16
CCV 240-287405/5		918148	5.24	672494	7.92	342833	10.16
MB 240-287405/7		869619	5.24	648874	7.92	326285	10.16
240-82240-1	TB-071217	834850	5.25	626031	7.92	307561	10.16
240-82240-2	EW-1-MID-071217	842183	5.24	632255	7.92	313859	10.16
240-82240-3	EW-1-END-071217	850705	5.24	633103	7.92	315970	10.16
240-82240-4	EW-1-FINAL-071217	807431	5.25	603667	7.92	301832	10.16
240-82240-2 MS	EW-1-MID-071217 MS	850245	5.24	623578	7.92	326761	10.16
240-82240-2 MSD	EW-1-MID-071217 MSD	849700	5.24	615547	7.92	333076	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: TB-071217 | Lab Sample ID: 240-82240-1

Matrix: Water | Lab File ID: UXM4617.D

Analysis Method: 8260C | Date Collected: 07/12/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 11:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: TB-071217 | Lab Sample ID: 240-82240-1

Matrix: Water | Lab File ID: UXM4617.D

Analysis Method: 8260C | Date Collected: 07/12/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 11:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 | Lab Sample ID: 240-82240-2

Matrix: Water | Lab File ID: UXM4618.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 11:46

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	160	U	500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210
79-00-5	1,1,2-Trichloroethane	170	U	500	170
75-34-3	1,1-Dichloroethane	130	U	500	130
75-35-4	1,1-Dichloroethene	140	U	500	140
120-82-1	1,2,4-Trichlorobenzene	140	U	500	140
96-12-8	1,2-Dibromo-3-Chloropropane	240	U	1000	240
106-93-4	Ethylene Dibromide	120	U	500	120
95-50-1	1,2-Dichlorobenzene	130	U	500	130
107-06-2	1,2-Dichloroethane	150	U	500	150
78-87-5	1,2-Dichloropropane	150	U	500	150
541-73-1	1,3-Dichlorobenzene	160	U	500	160
106-46-7	1,4-Dichlorobenzene	120	U	500	120
78-93-3	2-Butanone (MEK)	510	U	5000	510
591-78-6	2-Hexanone	620	U	5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	360	U	5000	360
67-64-1	Acetone	880	U	5000	880
71-43-2	Benzene	140	U	500	140
75-27-4	Dichlorobromomethane	150	U	500	150
75-25-2	Bromoform	220	U	500	220
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	170	U	500	170
56-23-5	Carbon tetrachloride	180	U	500	180
108-90-7	Chlorobenzene	160	U	500	160
75-00-3	Chloroethane	210	U	500	210
67-66-3	Chloroform	160	U	500	160
74-87-3	Chloromethane	220	U	500	220
156-59-2	cis-1,2-Dichloroethene	150	U	500	150
10061-01-5	cis-1,3-Dichloropropene	130	U	500	130
110-82-7	Cyclohexane	220	U	500	220
124-48-1	Chlorodibromomethane	130	U	500	130
75-71-8	Dichlorodifluoromethane	250	U	500	250
100-41-4	Ethylbenzene	130	U	500	130
98-82-8	Isopropylbenzene	110	U	500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 | Lab Sample ID: 240-82240-2

Matrix: Water | Lab File ID: UXM4618.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 11:46

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	720	U	5000	720
1634-04-4	Methyl tert-butyl ether	140	U	500	140
108-87-2	Methylcyclohexane	230	U	500	230
75-09-2	Methylene Chloride	270	U	500	270
100-42-5	Styrene	120	U	500	120
127-18-4	Tetrachloroethene	150	U	500	150
108-88-3	Toluene	120	U	500	120
156-60-5	trans-1,2-Dichloroethene	150	U	500	150
10061-02-6	trans-1,3-Dichloropropene	160	U	500	160
79-01-6	Trichloroethene	21000		500	170
75-69-4	Trichlorofluoromethane	250	U	500	250
75-01-4	Vinyl chloride	230	U	500	230
1330-20-7	Xylenes, Total	120	U	1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-END-071217 | Lab Sample ID: 240-82240-3

Matrix: Water | Lab File ID: UXM4619.D

Analysis Method: 8260C | Date Collected: 07/12/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 12:09

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	160	U	500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210
79-00-5	1,1,2-Trichloroethane	170	U	500	170
75-34-3	1,1-Dichloroethane	130	U	500	130
75-35-4	1,1-Dichloroethene	140	U	500	140
120-82-1	1,2,4-Trichlorobenzene	140	U	500	140
96-12-8	1,2-Dibromo-3-Chloropropane	240	U	1000	240
106-93-4	Ethylene Dibromide	120	U	500	120
95-50-1	1,2-Dichlorobenzene	130	U	500	130
107-06-2	1,2-Dichloroethane	150	U	500	150
78-87-5	1,2-Dichloropropane	150	U	500	150
541-73-1	1,3-Dichlorobenzene	160	U	500	160
106-46-7	1,4-Dichlorobenzene	120	U	500	120
78-93-3	2-Butanone (MEK)	510	U	5000	510
591-78-6	2-Hexanone	620	U	5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	360	U	5000	360
67-64-1	Acetone	880	U	5000	880
71-43-2	Benzene	140	U	500	140
75-27-4	Dichlorobromomethane	150	U	500	150
75-25-2	Bromoform	220	U	500	220
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	170	U	500	170
56-23-5	Carbon tetrachloride	180	U	500	180
108-90-7	Chlorobenzene	160	U	500	160
75-00-3	Chloroethane	210	U	500	210
67-66-3	Chloroform	160	U	500	160
74-87-3	Chloromethane	220	U	500	220
156-59-2	cis-1,2-Dichloroethene	150	U	500	150
10061-01-5	cis-1,3-Dichloropropene	130	U	500	130
110-82-7	Cyclohexane	220	U	500	220
124-48-1	Chlorodibromomethane	130	U	500	130
75-71-8	Dichlorodifluoromethane	250	U	500	250
100-41-4	Ethylbenzene	130	U	500	130
98-82-8	Isopropylbenzene	110	U	500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-END-071217 | Lab Sample ID: 240-82240-3

Matrix: Water | Lab File ID: UXM4619.D

Analysis Method: 8260C | Date Collected: 07/12/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 12:09

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	720	U	5000	720
1634-04-4	Methyl tert-butyl ether	140	U	500	140
108-87-2	Methylcyclohexane	230	U	500	230
75-09-2	Methylene Chloride	270	U	500	270
100-42-5	Styrene	120	U	500	120
127-18-4	Tetrachloroethene	150	U	500	150
108-88-3	Toluene	120	U	500	120
156-60-5	trans-1,2-Dichloroethene	150	U	500	150
10061-02-6	trans-1,3-Dichloropropene	160	U	500	160
79-01-6	Trichloroethene	21000		500	170
75-69-4	Trichlorofluoromethane	250	U	500	250
75-01-4	Vinyl chloride	230	U	500	230
1330-20-7	Xylenes, Total	120	U	1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-FINAL-071217 | Lab Sample ID: 240-82240-4

Matrix: Water | Lab File ID: UXM4620.D

Analysis Method: 8260C | Date Collected: 07/12/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 12:32

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	160	U	500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210
79-00-5	1,1,2-Trichloroethane	170	U	500	170
75-34-3	1,1-Dichloroethane	130	U	500	130
75-35-4	1,1-Dichloroethene	140	U	500	140
120-82-1	1,2,4-Trichlorobenzene	140	U	500	140
96-12-8	1,2-Dibromo-3-Chloropropane	240	U	1000	240
106-93-4	Ethylene Dibromide	120	U	500	120
95-50-1	1,2-Dichlorobenzene	130	U	500	130
107-06-2	1,2-Dichloroethane	150	U	500	150
78-87-5	1,2-Dichloropropane	150	U	500	150
541-73-1	1,3-Dichlorobenzene	160	U	500	160
106-46-7	1,4-Dichlorobenzene	120	U	500	120
78-93-3	2-Butanone (MEK)	510	U	5000	510
591-78-6	2-Hexanone	620	U	5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	360	U	5000	360
67-64-1	Acetone	880	U	5000	880
71-43-2	Benzene	140	U	500	140
75-27-4	Dichlorobromomethane	150	U	500	150
75-25-2	Bromoform	220	U	500	220
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	170	U	500	170
56-23-5	Carbon tetrachloride	180	U	500	180
108-90-7	Chlorobenzene	160	U	500	160
75-00-3	Chloroethane	210	U	500	210
67-66-3	Chloroform	160	U	500	160
74-87-3	Chloromethane	220	U	500	220
156-59-2	cis-1,2-Dichloroethene	150	U	500	150
10061-01-5	cis-1,3-Dichloropropene	130	U	500	130
110-82-7	Cyclohexane	220	U	500	220
124-48-1	Chlorodibromomethane	130	U	500	130
75-71-8	Dichlorodifluoromethane	250	U	500	250
100-41-4	Ethylbenzene	130	U	500	130
98-82-8	Isopropylbenzene	110	U	500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-FINAL-071217 | Lab Sample ID: 240-82240-4

Matrix: Water | Lab File ID: UXM4620.D

Analysis Method: 8260C | Date Collected: 07/12/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 12:32

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	720	U	5000	720
1634-04-4	Methyl tert-butyl ether	140	U	500	140
108-87-2	Methylcyclohexane	230	U	500	230
75-09-2	Methylene Chloride	270	U	500	270
100-42-5	Styrene	120	U	500	120
127-18-4	Tetrachloroethene	150	U	500	150
108-88-3	Toluene	120	U	500	120
156-60-5	trans-1,2-Dichloroethene	150	U	500	150
10061-02-6	trans-1,3-Dichloropropene	160	U	500	160
79-01-6	Trichloroethene	21000		500	170
75-69-4	Trichlorofluoromethane	250	U	500	250
75-01-4	Vinyl chloride	230	U	500	230
1330-20-7	Xylenes, Total	120	U	1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	87		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82240-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Isopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Lin1		0.2305		0.0379	0.0400	-5.3	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2277	0.1000	0.0144	0.0200	-28.1*	20.0
Chloromethane	Ave	0.3878	0.3195	0.1000	0.0165	0.0200	-17.6	20.0
Vinyl chloride	Ave	0.3718	0.3167	0.1000	0.0170	0.0200	-14.8	20.0
Butadiene	Ave	0.2937	0.2954		0.0201	0.0200	0.6	20.0
Bromomethane	Ave	0.2332	0.1828	0.0500	0.0157	0.0200	-21.6*	20.0
Chloroethane	Ave	0.2186	0.1954	0.0500	0.0179	0.0200	-10.6	20.0
Dichlorofluoromethane	Ave	0.5919	0.4334		0.0146	0.0200	-26.8*	20.0
Trichlorofluoromethane	Ave	0.4159	0.2825	0.1000	0.0136	0.0200	-32.1*	20.0
Ethyl ether	Ave	0.2501	0.2093		0.0167	0.0200	-16.3	20.0
Acrolein	Ave	0.0337	0.0199		0.0590	0.100	-41.0	50.0
1,1-Dichloroethene	Ave	0.2878	0.2354	0.1000	0.0164	0.0200	-18.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1577	0.0500	0.0178	0.0200	-10.8	20.0
Acetone	Lin1		0.0674	0.0100	0.0311	0.0400	-22.4	50.0
Iodomethane	Ave	0.4621	0.3782		0.0164	0.0200	-18.2	20.0
Carbon disulfide	Ave	0.9514	0.8772	0.1000	0.0184	0.0200	-7.8	20.0
3-Chloro-1-propene	Ave	0.2013	0.1806		0.0179	0.0200	-10.3	20.0
Methyl acetate	Ave	0.1624	0.1475	0.1000	0.0363	0.0400	-9.1	20.0
Methylene Chloride	Lin1		0.2901	0.1000	0.0171	0.0200	-14.5	50.0
2-Methyl-2-propanol	Lin1		0.0167		0.171	0.200	-14.5	50.0
Acrylonitrile	Ave	0.0864	0.0800		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2756	0.1000	0.0174	0.0200	-12.8	20.0
Methyl tert-butyl ether	Ave	0.8308	0.6762	0.1000	0.0163	0.0200	-18.6	20.0
Hexane	Ave	0.2897	0.2779		0.0192	0.0200	-4.1	20.0
1,1-Dichloroethane	Ave	0.5224	0.4698	0.2000	0.0180	0.0200	-10.1	20.0
Vinyl acetate	Ave	0.4093	0.4313		0.0211	0.0200	5.4	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3009	0.1000	0.0171	0.0200	-14.5	20.0
2,2-Dichloropropane	Ave	0.3598	0.2959		0.0164	0.0200	-17.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0839	0.0100	0.0339	0.0400	-15.2	20.0
Chlorobromomethane	Ave	0.1468	0.1285		0.0175	0.0200	-12.4	20.0
Tetrahydrofuran	Ave	0.0577	0.0592		0.0410	0.0400	2.6	20.0
Chloroform	Ave	0.5317	0.4281	0.2000	0.0161	0.0200	-19.5	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3429	0.1000	0.0157	0.0200	-21.5*	20.0
Cyclohexane	Ave	0.4257	0.3891	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3946	0.3674		0.0186	0.0200	-6.9	20.0
Carbon tetrachloride	Ave	0.3605	0.2849	0.1000	0.0158	0.0200	-21.0*	20.0
Isobutyl alcohol	Ave	0.0063	0.0056		0.442	0.500	-11.6	20.0
1,2-Dichloroethane	Ave	0.3955	0.3096	0.1000	0.0157	0.0200	-21.7*	20.0
Benzene	Ave	1.238	1.122	0.5000	0.0181	0.0200	-9.4	20.0
n-Heptane	Lin1		0.1355		0.0173	0.0200	-13.6	20.0
Trichloroethene	Ave	0.3129	0.2821	0.1500	0.0180	0.0200	-9.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3189	0.1000	0.0160	0.0200	-20.1*	20.0
1,2-Dichloropropane	Ave	0.2764	0.2660	0.1000	0.0193	0.0200	-3.7	20.0
Dibromomethane	Ave	0.1648	0.1397		0.0170	0.0200	-15.2	20.0
1,4-Dioxane	Ave	0.0024	0.0022		0.369	0.400	-7.8	50.0
Dichlorobromomethane	Ave	0.3799	0.3202	0.1500	0.0169	0.0200	-15.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1393		0.0395	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4079	0.1500	0.0178	0.0200	-10.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1797	0.0500	0.0352	0.0400	-12.0	20.0
Toluene	Ave	1.523	1.555	0.4000	0.0204	0.0200	2.1	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4758	0.1000	0.0204	0.0200	2.2	20.0
Ethyl methacrylate	Ave	0.3726	0.4082		0.0219	0.0200	9.5	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2760	0.1000	0.0208	0.0200	4.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.5085		0.0213	0.0200	6.4	20.0
Tetrachloroethene	Ave	0.2566	0.2600	0.1500	0.0203	0.0200	1.3	20.0
2-Hexanone	Ave	0.1699	0.1645	0.0500	0.0387	0.0400	-3.2	20.0
Chlorodibromomethane	Ave	0.3007	0.2910		0.0194	0.0200	-3.2	20.0
Ethylene Dibromide	Ave	0.2584	0.2614		0.0202	0.0200	1.2	20.0
Chlorobenzene	Ave	0.9683	0.9939	0.3000	0.0205	0.0200	2.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3110		0.0185	0.0200	-7.4	20.0
Ethylbenzene	Ave	0.5186	0.5242		0.0202	0.0200	1.1	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6419		0.0196	0.0200	-2.2	20.0
o-Xylene	Ave	0.6658	0.6429		0.0193	0.0200	-3.4	20.0
Styrene	Ave	1.131	1.112	0.3000	0.0197	0.0200	-1.7	20.0
Bromoform	Ave	0.1830	0.1715	0.1000	0.0187	0.0200	-6.3	20.0
Isopropylbenzene	Ave	1.648	1.493	0.1000	0.0181	0.0200	-9.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6198	0.3000	0.0213	0.0200	6.6	20.0
Bromobenzene	Ave	0.6921	0.6873		0.0199	0.0200	-0.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1856		0.0207	0.0200	3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1632		0.0202	0.0200	0.8	20.0
N-Propylbenzene	Ave	0.7108	0.7363		0.0207	0.0200	3.6	20.0
2-Chlorotoluene	Ave	0.6372	0.6556		0.0206	0.0200	2.9	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.228		0.0198	0.0200	-1.0	20.0
4-Chlorotoluene	Ave	0.6808	0.7235		0.0213	0.0200	6.3	20.0
tert-Butylbenzene	Ave	1.832	1.846		0.0202	0.0200	0.8	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.382		0.0199	0.0200	-0.6	20.0
sec-Butylbenzene	Ave	2.517	2.390		0.0190	0.0200	-5.0	20.0
1,3-Dichlorobenzene	Ave	1.358	1.325	0.6000	0.0195	0.0200	-2.4	20.0
4-Isopropyltoluene	Ave	2.194	2.096		0.0191	0.0200	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.421	1.351	0.5000	0.0190	0.0200	-5.0	20.0
n-Butylbenzene	Ave	1.821	1.710		0.0188	0.0200	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.283	1.246	0.4000	0.0194	0.0200	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0983	0.0500	0.0190	0.0200	-4.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6331	0.2000	0.0193	0.0200	-3.5	50.0
Hexachlorobutadiene	Ave	0.2651	0.2148		0.0162	0.0200	-19.0	20.0
Naphthalene	Ave	1.583	1.511		0.0191	0.0200	-4.5	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5357		0.0197	0.0200	-1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2283		0.0172	0.0200	-14.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2589		0.0160	0.0200	-20.0	20.0
Toluene-d8 (Surr)	Ave	1.277	1.322		0.0207	0.0200	3.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4924		0.0196	0.0200	-1.9	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	16.0		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	22.7		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17.7		1.0	0.41
79-00-5	1,1,2-Trichloroethane	21.8		1.0	0.34
75-34-3	1,1-Dichloroethane	18.5		1.0	0.25
75-35-4	1,1-Dichloroethene	16.7		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	19.7		1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	20.7		2.0	0.47
106-93-4	Ethylene Dibromide	20.7		1.0	0.23
95-50-1	1,2-Dichlorobenzene	20.7		1.0	0.26
107-06-2	1,2-Dichloroethane	16.0		1.0	0.30
78-87-5	1,2-Dichloropropane	20.3		1.0	0.30
541-73-1	1,3-Dichlorobenzene	20.0		1.0	0.32
106-46-7	1,4-Dichlorobenzene	19.9		1.0	0.23
78-93-3	2-Butanone (MEK)	35.4		10	1.0
591-78-6	2-Hexanone	42.0		10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	37.2		10	0.71
67-64-1	Acetone	25.1		10	1.8
71-43-2	Benzene	18.6		1.0	0.28
75-27-4	Dichlorobromomethane	16.9		1.0	0.30
75-25-2	Bromoform	18.9		1.0	0.43
74-83-9	Bromomethane	16.3		1.0	0.42
75-15-0	Carbon disulfide	18.1		1.0	0.34
56-23-5	Carbon tetrachloride	15.4		1.0	0.35
108-90-7	Chlorobenzene	20.4		1.0	0.32
75-00-3	Chloroethane	18.7		1.0	0.41
67-66-3	Chloroform	16.6		1.0	0.31
74-87-3	Chloromethane	17.7		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	17.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	18.7		1.0	0.26
110-82-7	Cyclohexane	18.6		1.0	0.44
124-48-1	Chlorodibromomethane	20.0		1.0	0.25
75-71-8	Dichlorodifluoromethane	17.4		1.0	0.50
100-41-4	Ethylbenzene	20.5		1.0	0.26
98-82-8	Isopropylbenzene	18.8		1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	37.3		10	1.4
1634-04-4	Methyl tert-butyl ether	17.0		1.0	0.27
108-87-2	Methylcyclohexane	15.7		1.0	0.45
75-09-2	Methylene Chloride	16.9		1.0	0.53
100-42-5	Styrene	19.8		1.0	0.23
127-18-4	Tetrachloroethene	20.2		1.0	0.30
108-88-3	Toluene	21.0		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	17.9		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	20.7		1.0	0.31
79-01-6	Trichloroethene	17.4		1.0	0.33
75-69-4	Trichlorofluoromethane	15.2		1.0	0.50
75-01-4	Vinyl chloride	18.1		1.0	0.45
1330-20-7	Xylenes, Total	40.2		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 MS | Lab Sample ID: 240-82240-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	7930		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11400		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9490		500	210
79-00-5	1,1,2-Trichloroethane	10600		500	170
75-34-3	1,1-Dichloroethane	8780		500	130
75-35-4	1,1-Dichloroethene	8500		500	140
120-82-1	1,2,4-Trichlorobenzene	9080		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	9730		1000	240
106-93-4	Ethylene Dibromide	10100		500	120
95-50-1	1,2-Dichlorobenzene	9840		500	130
107-06-2	1,2-Dichloroethane	7590		500	150
78-87-5	1,2-Dichloropropane	9870		500	150
541-73-1	1,3-Dichlorobenzene	9590		500	160
106-46-7	1,4-Dichlorobenzene	9660		500	120
78-93-3	2-Butanone (MEK)	17000		5000	510
591-78-6	2-Hexanone	19400		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	17700		5000	360
67-64-1	Acetone	12000		5000	880
71-43-2	Benzene	8940		500	140
75-27-4	Dichlorobromomethane	8080		500	150
75-25-2	Bromoform	8700		500	220
74-83-9	Bromomethane	7330		500	210
75-15-0	Carbon disulfide	8740		500	170
56-23-5	Carbon tetrachloride	7820		500	180
108-90-7	Chlorobenzene	9740		500	160
75-00-3	Chloroethane	8950		500	210
67-66-3	Chloroform	7910		500	160
74-87-3	Chloromethane	8350		500	220
156-59-2	cis-1,2-Dichloroethene	8530		500	150
10061-01-5	cis-1,3-Dichloropropene	8820		500	130
110-82-7	Cyclohexane	10000		500	220
124-48-1	Chlorodibromomethane	9360		500	130
75-71-8	Dichlorodifluoromethane	9180		500	250
100-41-4	Ethylbenzene	9930		500	130
98-82-8	Isopropylbenzene	9120		500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 MS | Lab Sample ID: 240-82240-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18300		5000	720
1634-04-4	Methyl tert-butyl ether	7970		500	140
108-87-2	Methylcyclohexane	8860		500	230
75-09-2	Methylene Chloride	8150		500	270
100-42-5	Styrene	9490		500	120
127-18-4	Tetrachloroethene	10600		500	150
108-88-3	Toluene	10100		500	120
156-60-5	trans-1,2-Dichloroethene	8730		500	150
10061-02-6	trans-1,3-Dichloropropene	9640		500	160
79-01-6	Trichloroethene	29200		500	170
75-69-4	Trichlorofluoromethane	7610		500	250
75-01-4	Vinyl chloride	9020		500	230
1330-20-7	Xylenes, Total	19300		1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 MSD | Lab Sample ID: 240-82240-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	8510		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11800		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8840		500	210
79-00-5	1,1,2-Trichloroethane	11600		500	170
75-34-3	1,1-Dichloroethane	9470		500	130
75-35-4	1,1-Dichloroethene	8840		500	140
120-82-1	1,2,4-Trichlorobenzene	9860		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	10100		1000	240
106-93-4	Ethylene Dibromide	10700		500	120
95-50-1	1,2-Dichlorobenzene	10700		500	130
107-06-2	1,2-Dichloroethane	8180		500	150
78-87-5	1,2-Dichloropropane	10500		500	150
541-73-1	1,3-Dichlorobenzene	10400		500	160
106-46-7	1,4-Dichlorobenzene	10300		500	120
78-93-3	2-Butanone (MEK)	17600		5000	510
591-78-6	2-Hexanone	20700		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	18800		5000	360
67-64-1	Acetone	12500		5000	880
71-43-2	Benzene	9760		500	140
75-27-4	Dichlorobromomethane	8560		500	150
75-25-2	Bromoform	9520		500	220
74-83-9	Bromomethane	8200		500	210
75-15-0	Carbon disulfide	9270		500	170
56-23-5	Carbon tetrachloride	8100		500	180
108-90-7	Chlorobenzene	10800		500	160
75-00-3	Chloroethane	9350		500	210
67-66-3	Chloroform	8480		500	160
74-87-3	Chloromethane	9000		500	220
156-59-2	cis-1,2-Dichloroethene	9080		500	150
10061-01-5	cis-1,3-Dichloropropene	9520		500	130
110-82-7	Cyclohexane	9470		500	220
124-48-1	Chlorodibromomethane	10100		500	130
75-71-8	Dichlorodifluoromethane	8310		500	250
100-41-4	Ethylbenzene	10800		500	130
98-82-8	Isopropylbenzene	9970		500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Client Sample ID: EW-1-MID-071217 MSD | Lab Sample ID: 240-82240-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	19000		5000	720
1634-04-4	Methyl tert-butyl ether	8550		500	140
108-87-2	Methylcyclohexane	7760		500	230
75-09-2	Methylene Chloride	8830		500	270
100-42-5	Styrene	10500		500	120
127-18-4	Tetrachloroethene	10900		500	150
108-88-3	Toluene	11100		500	120
156-60-5	trans-1,2-Dichloroethene	9280		500	150
10061-02-6	trans-1,3-Dichloropropene	10500		500	160
79-01-6	Trichloroethene	30400		500	170
75-69-4	Trichlorofluoromethane	7590		500	250
75-01-4	Vinyl chloride	9380		500	230
1330-20-7	Xylenes, Total	21100		1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1		DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1		DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1		DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1		DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1		DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1		DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/17/2017 08:29

Analysis Batch Number: 287405 End Date: 07/17/2017 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-287405/1		07/17/2017 08:29	1	BFB5335.D	DB-624 0.18(mm)
CCVIS 240-287405/3		07/17/2017 09:11	1	UXM4612.D	DB-624 0.18(mm)
LCS 240-287405/4		07/17/2017 09:34	1	UXM4613.D	DB-624 0.18(mm)
CCV 240-287405/5		07/17/2017 09:57	1	UXM4614.D	DB-624 0.18(mm)
MDLV 240-287405/6		07/17/2017 10:21	1		DB-624 0.18(mm)
MB 240-287405/7		07/17/2017 10:44	1	UXM4616.D	DB-624 0.18(mm)
240-82240-1		07/17/2017 11:23	1	UXM4617.D	DB-624 0.18(mm)
240-82240-2		07/17/2017 11:46	500	UXM4618.D	DB-624 0.18(mm)
240-82240-3		07/17/2017 12:09	500	UXM4619.D	DB-624 0.18(mm)
240-82240-4		07/17/2017 12:32	500	UXM4620.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:56	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:19	100		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:42	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 14:20	10		DB-624 0.18(mm)
240-82240-2 MS		07/17/2017 14:43	500	UXM4625.D	DB-624 0.18(mm)
240-82240-2 MSD		07/17/2017 15:06	500	UXM4626.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 15:53	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 16:16	125		DB-624 0.18(mm)
ZZZZZ		07/17/2017 16:39	250		DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:03	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:26	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:49	50		DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:12	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:35	1		DB-624 0.18(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG No.:

Project: MRC Block F

Client Sample ID	Lab Sample ID
EW-1-MID-071217	240-82240-2
EW-1-END-071217	240-82240-3
EW-1-FINAL-071217	240-82240-4
MRC-SW-15A-16A-071217	240-82240-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-1-MID-071217 Lab Sample ID: 240-82240-2

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 08:30

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	430	100	25	ug/L			1	6010C
7439-96-5	Manganese	100	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	38	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	26	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-1-END-071217 Lab Sample ID: 240-82240-3

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 11:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	450	100	25	ug/L			1	6010C
7439-96-5	Manganese	98	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	38	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	26	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-1-FINAL-071217 Lab Sample ID: 240-82240-4

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 13:10

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	1100	100	25	ug/L			1	6010C
7439-96-5	Manganese	94	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	38	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	26	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-SW-15A-16A-071217 Lab Sample ID: 240-82240-5

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 14:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	120	100	25	ug/L			1	6010C
7439-96-5	Manganese	52	15	5.1	ug/L			1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICV 240-287672/4 07/18/2017 08:32				CCV 240-287672/67 07/18/2017 13:15				CCV 240-287672/79 07/18/2017 14:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24600		25000	99	50700		50000	101	49800		50000	100
Iron	12800		12500	102	25400		25000	102	25100		25000	100
Magnesium	25600		25000	102	49900		50000	100	49100		50000	98
Manganese	1520		1500	101	2050		2000	103	1990		2000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-287672/91 07/18/2017 15:00											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49600		50000	99								
Iron	24900		25000	100								
Magnesium	49000		50000	98								
Manganese	2020		2000	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

ICV Source: MTTRCRIC_00049 Concentration Units: ug/L

CCV Source: MTTRCRIC_00049

Analyte	ICVL 240-287672/6 07/18/2017 08:41				CCVL 240-287672/111 07/18/2017 16:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5180		5000	104	5190		5000	104				
Iron	210		200	105	204		200	102				
Magnesium	5190		5000	104	5010		5000	100				
Manganese	15.2		15.0	101	16.4		15.0	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-287672/5 07/18/2017 08:36		CCB 240-287672/68 07/18/2017 13:19		CCB 240-287672/80 07/18/2017 14:13		CCB 240-287672/92 07/18/2017 15:04	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-287479/1-A

Instrument Code: I9 Batch No.: 287672

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	25	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-95-4	Magnesium	230	U		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICSA 240-287672/8 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTTRICSAW_00035

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**471450**	**94**
Iron	**200000**	**191060**	**96**
Magnesium	**500000**	**501700**	**100**
Manganese		**2.09**	
Aluminum	*500000*	*501870*	*100*
Antimony		*-0.502*	
Arsenic		*0.889*	
Barium		*0.263*	
Beryllium		*0.303*	
Boron		*-2.74*	
Cadmium		*0.186*	
Chromium		*3.27*	
Cobalt		*0.497*	
Copper		*-5.74*	
Lead		*4.39*	
Lithium		*20.9*	
Molybdenum		*-1.89*	
Nickel		*-0.427*	
Potassium		*103*	
Selenium		*0.549*	
Silicon		*2.10*	
Silver		*-0.119*	
Sodium		*128*	
Strontium		*5.66*	
Thallium		*2.45*	
Tin		*1.28*	
Titanium		*-0.516*	
Vanadium		*-2.42*	
Zinc		*-1.09*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Lab Sample ID: ICSAB 240-287672/9 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTICPICSABW_00015

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**471510**	**94**
Iron	**200000**	**189630**	**95**
Magnesium	**500000**	**502670**	**101**
Manganese	**500**	**485**	**97**
Aluminum	*500000*	*498240*	*100*
Antimony	*1000*	*994*	*99*
Arsenic	*1000*	*1019*	*102*
Barium	*500*	*493*	*99*
Beryllium	*500*	*482*	*96*
Boron	*500*	*503*	*101*
Cadmium	*1000*	*1018*	*102*
Chromium	*500*	*484*	*97*
Cobalt	*500*	*501*	*100*
Copper	*500*	*522*	*104*
Lead	*1000*	*888*	*89*
Lithium	*500*	*537*	*107*
Molybdenum	*1000*	*911*	*91*
Nickel	*1000*	*993*	*99*
Potassium	*10000*	*10434*	*104*
Selenium	*1000*	*1003*	*100*
Silicon	*10000*	*9569*	*96*
Silver	*1000*	*1066*	*107*
Sodium	*10000*	*10420*	*104*
Strontium	*1500*	*1422*	*95*
Thallium	*1000*	*947*	*95*
Tin	*500*	*508*	*102*
Titanium	*500*	*487*	*97*
Vanadium	*500*	*475*	*95*
Zinc	*1000*	*1022*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: EW-1-MID-071217 MS
Lab ID: 240-82240-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-82240-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	1420		430		1000	98	75-125		6010C
Manganese	610		100		500	101	75-125		6010C
Calcium	54800		4700	J	50000	100	75-125		6010C
Magnesium	55800		6300		50000	99	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: EW-1-MID-071217 MSD | Lab ID: 240-82240-2 MSD

Lab Name: TestAmerica Canton | Job No.: 240-82240-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1430		1000	100	75-125	1	20		6010C
Manganese	606		500	101	75-125	1	20		6010C
Calcium	54800		50000	100	75-125	0	20		6010C
Magnesium	56000		50000	99	75-125	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-287479/2-A

Lab Name: TestAmerica Canton Job No.: 240-82240-1

Sample Matrix: Water LCS Source: MTICP1_00065

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	1020		102	80	120		6010C
Manganese	500	494		99	80	120		6010C
Calcium	50000	50000		100	80	120		6010C
Magnesium	50000	49700		99	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-82240-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-82240-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	430		437	J	NC		6010C
Manganese	100		106		NC		6010C
Calcium	4700	J	4630	J	NC		6010C
Magnesium	6300		6560	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-82240-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		15000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-287479/1-A	07/17/2017 14:00	287479		50	50
LCS 240-287479/2-A	07/17/2017 14:00	287479		50	50
240-82240-2	07/17/2017 14:00	287479		50	50
240-82240-2 MS	07/17/2017 14:00	287479		50	50
240-82240-2 MSD	07/17/2017 14:00	287479		50	50
240-82240-3	07/17/2017 14:00	287479		50	50
240-82240-4	07/17/2017 14:00	287479		50	50
240-82240-5	07/17/2017 14:00	287479		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ICIS 240-287672/1	1		08:19	X	X	X	X																						
CALSTD 240-287672/2 IC			08:24	X	X	X	X																						
CALSTD 240-287672/3 IC			08:28	X	X	X	X																						
ICV 240-287672/4	1		08:32	X	X	X	X																						
ICB 240-287672/5	1		08:36		X		X																						
ICVL 240-287672/6	1		08:41	X	X	X	X																						
ZZZZZZ			08:45																										
ICSA 240-287672/8	1		08:50	X	X	X	X																						
ICSAB 240-287672/9	1		08:54	X	X	X	X																						
CCV 240-287672/10			08:58																										
CCB 240-287672/11			09:02																										
ZZZZZZ			09:06																										
ZZZZZZ			09:11																										
ZZZZZZ			09:15																										
ZZZZZZ			09:20																										
ZZZZZZ			09:24																										
ZZZZZZ			09:28																										
CCV 240-287672/18			09:33																										
CCB 240-287672/19			09:37																										
ZZZZZZ			09:52																										
ZZZZZZ			09:56																										
ZZZZZZ			10:00																										
ZZZZZZ			10:04																										
ZZZZZZ			10:08																										
ZZZZZZ			10:13																										
ZZZZZZ			10:17																										
ZZZZZZ			10:22																										
ZZZZZZ			10:26																										
ZZZZZZ			10:30																										
CCV 240-287672/30			10:34																										
CCB 240-287672/31			10:38																										
ZZZZZZ			10:43																										
ZZZZZZ			10:47																										
ZZZZZZ			10:52																										
ZZZZZZ			10:56																										
ZZZZZZ			11:00																										
ZZZZZZ			11:05																										
ZZZZZZ			11:09																										
ZZZZZZ			11:14																										
ZZZZZZ			11:18																										
ZZZZZZ			11:22																										
CCV 240-287672/42			11:27																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCB 240-287672/43			11:31																										
CCVL 240-287672/44			11:35																										
ZZZZZZ			11:40																										
ZZZZZZ			11:44																										
ZZZZZZ			11:49																										
ZZZZZZ			11:53																										
ZZZZZZ			11:58																										
ZZZZZZ			12:02																										
ZZZZZZ			12:07																										
ZZZZZZ			12:11																										
ZZZZZZ			12:15																										
ZZZZZZ			12:19																										
CCV 240-287672/55			12:24																										
CCB 240-287672/56			12:28																										
ZZZZZZ			12:32																										
ZZZZZZ			12:36																										
ZZZZZZ			12:41																										
ZZZZZZ			12:45																										
ZZZZZZ			12:49																										
ZZZZZZ			12:53																										
ZZZZZZ			12:58																										
ZZZZZZ			13:02																										
ZZZZZZ			13:06																										
ZZZZZZ			13:10																										
CCV 240-287672/67	1		13:15	X	X	X	X																						
CCB 240-287672/68	1		13:19		X		X																						
ZZZZZZ			13:23																										
ZZZZZZ			13:27																										
ZZZZZZ			13:31																										
ZZZZZZ			13:35																										
ZZZZZZ			13:39																										
MB 240-287479/1-A	1	R	13:44		X		X																						
LCS 240-287479/2-A	1	R	13:48	X	X	X	X																						
240-82240-2	1	R	13:52		X		X																						
240-82240-2 SD	5	R	13:56		X		X																						
ZZZZZZ			14:05																										
CCV 240-287672/79	1		14:09	X	X	X	X																						
CCB 240-287672/80	1		14:13		X		X																						
240-82240-2 MS	1	R	14:17	X	X	X	X																						
240-82240-2 MSD	1	R	14:21	X	X	X	X																						
240-82240-3	1	R	14:25		X		X																						
ZZZZZZ			14:29																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
ZZZZZZ			14:34																											
ZZZZZZ			14:38																											
ZZZZZZ			14:42																											
ZZZZZZ			14:47																											
240-82240-4	1	R	14:51		X		X																							
240-82240-5	1	R	14:56		X		X																							
CCV 240-287672/91	1		15:00	X	X	X	X																							
CCB 240-287672/92	1		15:04		X		X																							
ZZZZZZ			15:09																											
ZZZZZZ			15:13																											
ZZZZZZ			15:17																											
ZZZZZZ			15:21																											
ZZZZZZ			15:26																											
ZZZZZZ			15:30																											
ZZZZZZ			15:34																											
ZZZZZZ			15:38																											
ZZZZZZ			15:43																											
ZZZZZZ			15:47																											
CCV 240-287672/103			15:51																											
CCB 240-287672/104			15:55																											
ZZZZZZ			15:59																											
ZZZZZZ			16:04																											
ZZZZZZ			16:08																											
ZZZZZZ			16:12																											
ZZZZZZ			16:17																											
ZZZZZZ			16:21																											
CCVL 240-287672/111	1		16:25	X	X	X	X																							
ZZZZZZ			16:30																											
ZZZZZZ			16:35																											
ZZZZZZ			16:39																											
CCV 240-287672/115			16:43																											
CCB 240-287672/116			16:47																											
ZZZZZZ			16:52																											
ZZZZZZ			16:56																											
ZZZZZZ			17:00																											
ZZZZZZ			17:05																											
ZZZZZZ			17:09																											
ZZZZZZ			17:13																											
ZZZZZZ			17:18																											
ZZZZZZ			17:22																											
ZZZZZZ			17:26																											
ZZZZZZ			17:31																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/127			17:35																										
CCB 240-287672/128			17:39																										
ZZZZZZ			17:44																										
ZZZZZZ			17:48																										
ZZZZZZ			17:52																										
ZZZZZZ			17:57																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
CCV 240-287672/139			18:27																										
CCB 240-287672/140			18:31																										
ZZZZZZ			18:36																										
ZZZZZZ			18:40																										
ZZZZZZ			18:44																										
ZZZZZZ			18:49																										
ZZZZZZ			18:53																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:06																										
ZZZZZZ			19:11																										
ZZZZZZ			19:15																										
CCV 240-287672/151			19:19																										
CCB 240-287672/152			19:24																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:36																										
ZZZZZZ			19:40																										
ZZZZZZ			19:44																										
ZZZZZZ			19:48																										
ZZZZZZ			19:53																										
ZZZZZZ			19:57																										
ZZZZZZ			20:01																										
ZZZZZZ			20:06																										
CCV 240-287672/163			20:10																										
CCB 240-287672/164			20:14																										
ZZZZZZ			20:18																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
ZZZZZZ			20:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			20:36																										
ZZZZZZ			20:40																										
ZZZZZZ			20:45																										
ZZZZZZ			20:49																										
ZZZZZZ			20:53																										
ZZZZZZ			20:58																										
CCV 240-287672/175			21:02																										
CCB 240-287672/176			21:06																										
ZZZZZZ			21:10																										
ZZZZZZ			21:15																										
ZZZZZZ			21:19																										
ZZZZZZ			21:23																										
ZZZZZZ			21:27																										
ZZZZZZ			21:32																										
ZZZZZZ			21:36																										
ZZZZZZ			21:40																										
ZZZZZZ			21:44																										
ZZZZZZ			21:48																										
CCV 240-287672/187			21:52																										
CCB 240-287672/188			21:56																										
ZZZZZZ			22:01																										
ZZZZZZ			22:05																										
ZZZZZZ			22:09																										
ZZZZZZ			22:13																										
ZZZZZZ			22:17																										
ZZZZZZ			22:21																										
ZZZZZZ			22:26																										
ZZZZZZ			22:30																										
ZZZZZZ			22:35																										
ZZZZZZ			22:39																										
CCV 240-287672/199			22:43																										
CCB 240-287672/200			22:47																										
ZZZZZZ			22:52																										
ZZZZZZ			22:56																										
ZZZZZZ			23:00																										
ZZZZZZ			23:05																										
ZZZZZZ			23:09																										
ZZZZZZ			23:13																										
ZZZZZZ			23:18																										
ZZZZZZ			23:22																										
ZZZZZZ			23:27																										
ZZZZZZ			23:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/211			23:35																										
CCB 240-287672/212			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:01																										
ZZZZZZ			00:05																										
ZZZZZZ			00:09																										
ZZZZZZ			00:14																										
ZZZZZZ			00:18																										
ZZZZZZ			00:23																										
CCV 240-287672/223			00:27																										
CCB 240-287672/224			00:31																										
ZZZZZZ			00:35																										
ZZZZZZ			00:40																										
ZZZZZZ			00:44																										
ZZZZZZ			00:48																										
ZZZZZZ			00:53																										
ZZZZZZ			00:57																										
ZZZZZZ			01:01																										
ZZZZZZ			01:06																										
ZZZZZZ			01:10																										
ZZZZZZ			01:15																										
CCV 240-287672/235			01:19																										
CCB 240-287672/236			01:23																										
ZZZZZZ			01:28																										
ZZZZZZ			01:32																										
ZZZZZZ			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:44																										
ZZZZZZ			01:48																										
ZZZZZZ			01:53																										
ZZZZZZ			01:57																										
ZZZZZZ			02:00																										
ZZZZZZ			02:05																										
CCV 240-287672/247			02:09																										
CCB 240-287672/248			02:13																										
ZZZZZZ			02:18																										
ZZZZZZ			02:22																										
ZZZZZZ			02:26																										
ZZZZZZ			02:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
ZZZZZZ			02:36																											
ZZZZZZ			02:40																											
ZZZZZZ			02:44																											
ZZZZZZ			02:49																											
ZZZZZZ			02:53																											
ZZZZZZ			02:58																											
CCV 240-287672/259			03:02																											
CCB 240-287672/260			03:06																											
ZZZZZZ			03:10																											
ZZZZZZ			03:15																											
ZZZZZZ			03:19																											
ZZZZZZ			03:23																											
ZZZZZZ			03:28																											
ZZZZZZ			03:33																											
ZZZZZZ			03:37																											
ZZZZZZ			03:42																											
ZZZZZZ			03:46																											
ZZZZZZ			03:50																											
CCV 240-287672/271			03:54																											
CCB 240-287672/272			03:58																											
ZZZZZZ			04:03																											
ZZZZZZ			04:07																											
ZZZZZZ			04:11																											
ZZZZZZ			04:15																											
ZZZZZZ			04:19																											
ZZZZZZ			04:24																											
ZZZZZZ			04:28																											
ZZZZZZ			04:32																											
ZZZZZZ			04:36																											
ZZZZZZ			04:41																											
CCV 240-287672/283			04:45																											
CCB 240-287672/284			04:50																											
ZZZZZZ			04:54																											
ZZZZZZ			04:58																											
ZZZZZZ			05:03																											
ZZZZZZ			05:07																											
ZZZZZZ			05:12																											
ZZZZZZ			05:16																											
ZZZZZZ			05:20																											
ZZZZZZ			05:25																											
ZZZZZZ			05:29																											
ZZZZZZ			05:33																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/295			05:38																										
CCB 240-287672/296			05:42																										
ZZZZZZ			05:46																										
ZZZZZZ			05:51																										
ZZZZZZ			05:55																										
ZZZZZZ			06:00																										
ZZZZZZ			06:04																										
ZZZZZZ			06:09																										
ZZZZZZ			06:14																										
ZZZZZZ			06:18																										
ZZZZZZ			06:23																										
ZZZZZZ			06:27																										
CCV 240-287672/307			06:32																										
CCB 240-287672/308			06:36																										
ZZZZZZ			06:41																										
ZZZZZZ			06:45																										
ZZZZZZ			06:50																										
ZZZZZZ			06:55																										
ZZZZZZ			06:59																										
ZZZZZZ			07:04																										
ZZZZZZ			07:08																										
ZZZZZZ			07:13																										
ZZZZZZ			07:17																										
ZZZZZZ			07:21																										
CCV 240-287672/319			07:26																										
CCB 240-287672/320			07:30																										
ZZZZZZ			07:34																										
ZZZZZZ			07:39																										
ZZZZZZ			07:43																										
ZZZZZZ			07:47																										
ZZZZZZ			07:52																										
ZZZZZZ			07:56																										
ZZZZZZ			08:00																										
ZZZZZZ			08:05																										
ZZZZZZ			08:09																										
CCV 240-287672/330			08:13																										
CCB 240-287672/331			08:18																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 07/19/2017 16:03 End Date: 07/19/2017 16:03

Lab Sample Id	D/F	Type	Time	Analytes																										
				CaCO3	HardCC	MgHARD																								
ZZZZZZ			16:03																											
240-82240-2	1	R	16:03	X	X	X																								
240-82240-3	1	R	16:03	X	X	X																								
240-82240-4	1	R	16:03	X	X	X																								
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287479 Batch Start Date: 07/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 07/17/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00075	MTICP1 00065	MTICP2A 00073	MTTMHCL 00162
MB 240-287479/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-287479/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2	EW-1-MID-071217	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-82240-G-2 MS	EW-1-MID-071217	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2 MSD	EW-1-MID-071217	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-3	EW-1-END-071217	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-82240-G-4	EW-1-FINAL-071217	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-82240-C-5	MRC-SW-15A-16A-071217	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00124					
MB 240-287479/1		3005A, 6010C		1 mL					
LCS 240-287479/2		3005A, 6010C		1 mL					
240-82240-G-2	EW-1-MID-071217	3005A, 6010C	R	1 mL					
240-82240-G-2 MS	EW-1-MID-071217	3005A, 6010C	R	1 mL					
240-82240-G-2 MSD	EW-1-MID-071217	3005A, 6010C	R	1 mL					
240-82240-G-3	EW-1-END-071217	3005A, 6010C	R	1 mL					
240-82240-G-4	EW-1-FINAL-071217	3005A, 6010C	R	1 mL					
240-82240-C-5	MRC-SW-15A-16A-071217	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB1/HB2/HB3
Pipette ID	mp1
Digestion Tube/Cup ID	1703076

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287479 Batch Start Date: 07/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 07/17/17 22:00

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG No.:

Project: MRC Block F

Client Sample ID	Lab Sample ID
EW-1-MID-071217	240-82240-2
EW-1-END-071217	240-82240-3
EW-1-FINAL-071217	240-82240-4
MRC-SW-15A-16A-071217	240-82240-5

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82240-1

SDG No.:

Project: MRC Block F

Client Sample ID	Lab Sample ID
EW-1-MID-071217	240-82240-2
EW-1-END-071217	240-82240-3
EW-1-FINAL-071217	240-82240-4
MRC-SW-15A-16A-071217	240-82240-5

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-MID-071217 Lab Sample ID: 240-82240-2

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 08:30

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	3.1	5.0	2.6	mg/L	J		1	2320B-1997
24959-67-9	Bromide	0.32	0.50	0.044	mg/L	J		1	300.0
14797-65-0	Nitrite as N	0.039	0.10	0.014	mg/L	J		1	300.0
14797-55-8	Nitrate as N	1.1	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	14	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	190	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-END-071217 Lab Sample ID: 240-82240-3

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 11:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	3.2	5.0	2.6	mg/L	J		1	2320B-1997
24959-67-9	Bromide	0.32	0.50	0.044	mg/L	J		1	300.0
14797-65-0	Nitrite as N	0.044	0.10	0.014	mg/L	J		1	300.0
14797-55-8	Nitrate as N	1.1	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	15	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	200	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-FINAL-071217 Lab Sample ID: 240-82240-4

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 13:10

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	3.1	5.0	2.6	mg/L	J		1	2320B-1997
24959-67-9	Bromide	0.32	0.50	0.044	mg/L	J		1	300.0
14797-65-0	Nitrite as N	0.043	0.10	0.014	mg/L	J		1	300.0
14797-55-8	Nitrate as N	1.1	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	15	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	280	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-SW-15A-16A-071217 Lab Sample ID: 240-82240-5

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 14:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	45	5.0	2.6	mg/L			1	2320B-1997
24959-67-9	Bromide	3.9	0.50	0.044	mg/L			1	300.0
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.098	0.10	0.014	mg/L	J		1	300.0
14808-79-8	Sulfate	130	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	1500	20	16	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-MID-071217 Lab Sample ID: 240-82240-2

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 08:30

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-END-071217 Lab Sample ID: 240-82240-3

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 11:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-1-FINAL-071217 Lab Sample ID: 240-82240-4

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 13:10

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-SW-15A-16A-071217 Lab Sample ID: 240-82240-5

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 14:00

Reporting Basis: WET Date Received: 07/13/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Analyst: LKG Batch Start Date: 07/13/2017

Reporting Units: mg/L Analytical Batch No.: 287054

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:08	Bromide	10.4	10.0	104	90-110		WCICCCV_00776
			Sulfate	50.8	50.0	102	90-110		WCICCCV_00776
2	CCB	12:28	Bromide	0.044				U	
			Sulfate	0.35				U	
13	CCV	16:14	Bromide	10.3	10.0	103	90-110		WCICCCV_00776
			Sulfate	50.5	50.0	101	90-110		WCICCCV_00776
14	CCB	16:35	Bromide	0.044				U	
			Sulfate	0.35				U	
25	CCV	20:21	Bromide	10.3	10.0	103	90-110		WCICCCV_00776
			Sulfate	50.5	50.0	101	90-110		WCICCCV_00776
26	CCB	20:42	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Analyst: LKG Batch Start Date: 07/13/2017

Reporting Units: mg/L Analytical Batch No.: 287055

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:08	Nitrite as N	2.57	2.50	103	90-110		WCICCCV_00776
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00776
2	CCB	12:28	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	16:14	Nitrite as N	2.56	2.50	102	90-110		WCICCCV_00776
			Nitrate as N	2.56	2.50	102	90-110		WCICCCV_00776
14	CCB	16:35	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
25	CCV	20:21	Nitrite as N	2.56	2.50	102	90-110		WCICCCV_00776
			Nitrate as N	2.56	2.50	103	90-110		WCICCCV_00776
26	CCB	20:42	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 288082	Date: 07/20/2017 10:00						
2320B-1997	MB 240-288082/6	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 287054	Date: 07/13/2017 12:49						
300.0	MB 240-287054/3	Bromide	0.044	U	mg/L	0.50	1
300.0	MB 240-287054/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 287055	Date: 07/13/2017 12:49						
300.0	MB 240-287055/3	Nitrite as N	0.014	U	mg/L	0.10	1
300.0	MB 240-287055/3	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 287646	Date: 07/18/2017 10:38						
SM 2540C	MB 240-287646/1	Total Dissolved Solids	7.8	U	mg/L	10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 217391 Date: 07/18/2017 11:24							
SM 2520B	MB 180-217391/1	Salinity	2.0	U	No Unit	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287054 Date: 07/13/2017 18:18											
300.0	240-82240-2	Bromide	0.32	J	mg/L						
300.0	240-82240-2 MS	Bromide	11.0		mg/L	10.0	106	80-120			
300.0	240-82240-2	Sulfate	14		mg/L						
300.0	240-82240-2 MS	Sulfate	64.3		mg/L	50.0	100	80-120			
Batch ID: 287055 Date: 07/13/2017 18:18											
300.0	240-82240-2	Nitrite as N	0.039	J	mg/L						
300.0	240-82240-2 MS	Nitrite as N	2.73		mg/L	2.50	108	80-120			
300.0	240-82240-2	Nitrate as N	1.1		mg/L						
300.0	240-82240-2 MS	Nitrate as N	3.71		mg/L	2.50	105	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287054 Date: 07/13/2017 18:38											
300.0	240-82240-2 MSD	Bromide	10.7		mg/L	10.0	104	80-120	2	15	
300.0	240-82240-2 MSD	Sulfate	64.5		mg/L	50.0	101	80-120	0	15	
Batch ID: 287055 Date: 07/13/2017 18:38											
300.0	240-82240-2 MSD	Nitrite as N	2.71		mg/L	2.50	107	80-120	1	15	
300.0	240-82240-2 MSD	Nitrate as N	3.65		mg/L	2.50	102	80-120	2	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 288082 Date: 07/20/2017 11:53								
2320B-1997		240-82251-A-1	Alkalinity	84	mg/L			
2320B-1997		240-82251-A-1 DU	Alkalinity	84.8	mg/L	1	20	
Batch ID: 287646 Date: 07/18/2017 10:38								
SM 2540C	EW-1-FINAL-071217	240-82240-4	Total Dissolved Solids	280	mg/L			
SM 2540C	EW-1-FINAL-071217	240-82240-4 DU	Total Dissolved Solids	346	mg/L	20	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 217391 Date: 07/18/2017 11:24								
SM 2520B		180-68209-AP-1	Salinity	2.0	No Unit			U
SM 2520B		180-68209-AP-1 DU	Salinity	2.0	No Unit	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 288082	Date: 07/20/2017 09:54										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-288082/5	Alkalinity	383		mg/L	377	102	86-123			
Batch ID: 287054	Date: 07/13/2017 13:09										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287054/4	Bromide	10.5		mg/L	10.0	105	90-110			
300.0	LCS 240-287054/4	Sulfate	51.4		mg/L	50.0	103	90-110			
Batch ID: 287055	Date: 07/13/2017 13:09										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287055/4	Nitrite as N	2.51		mg/L	2.50	100	90-110			
300.0	LCS 240-287055/4	Nitrate as N	2.61		mg/L	2.50	105	90-110			
Batch ID: 287646	Date: 07/18/2017 10:38										
						LCS Source: WCPHENOVSOLID_00022					
SM 2540C	LCS 240-287646/2	Total Dissolved Solids	222		mg/L	242	92	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82240-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 07/20/2017 08:40 End Date: 07/20/2017 13:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-288082/1			08:40																									
RINSE 240-288082/2			08:46																									
ZZZZZZ			09:06																									
ZZZZZZ			09:41																									
LCS 240-288082/5	1	T	09:54	X																								
MB 240-288082/6	1	T	10:00	X																								
ZZZZZZ			10:04																									
ZZZZZZ			10:14																									
ZZZZZZ			10:23																									
ZZZZZZ			10:32																									
ZZZZZZ			10:39																									
ZZZZZZ			10:48																									
240-82240-2	1	T	10:54	X																								
240-82240-3	1	T	11:01	X																								
240-82240-4	1	T	11:08	X																								
240-82240-5	1	T	11:17	X																								
ZZZZZZ			11:30																									
ZZZZZZ			11:34																									
ZZZZZZ			11:43																									
240-82251-A-1 DU	1	T	11:53	X																								
ZZZZZZ			12:02																									
ZZZZZZ			12:12																									
ZZZZZZ			12:21																									
ZZZZZZ			12:31																									
ZZZZZZ			12:41																									
ZZZZZZ			12:51																									
ZZZZZZ			13:04																									
ZZZZZZ			13:15																									
ZZZZZZ			13:19																									
ZZZZZZ			13:29																									
ZZZZZZ			13:38																									
ZZZZZZ			13:46																									
ZZZZZZ			13:50																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/13/2017 12:08 End Date: 07/13/2017 20:42

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
CCV 240-287054/1	1		12:08	X	X																								
CCB 240-287054/2	1		12:28	X	X																								
MB 240-287054/3	1	T	12:49	X	X																								
LCS 240-287054/4	1	T	13:09	X	X																								
ZZZZZZ			13:30																										
ZZZZZZ			13:50																										
ZZZZZZ			14:11																										
CCV 240-287054/13	1		16:14	X	X																								
CCB 240-287054/14	1		16:35	X	X																								
240-82240-2	1	T	17:57	X	X																								
240-82240-2 MS	1	T	18:18	X	X																								
240-82240-2 MSD	1	T	18:38	X	X																								
240-82240-3	1	T	18:59	X	X																								
240-82240-4	1	T	19:19	X	X																								
240-82240-5	1	T	19:40	X	X																								
ZZZZZZ			20:00																										
CCV 240-287054/25	1		20:21	X	X																								
CCB 240-287054/26	1		20:42	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/13/2017 12:08 End Date: 07/13/2017 20:42

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-287055/1	1		12:08	X	X																								
CCB 240-287055/2	1		12:28	X	X																								
MB 240-287055/3	1	T	12:49	X	X																								
LCS 240-287055/4	1	T	13:09	X	X																								
ZZZZZZ			13:30																										
ZZZZZZ			13:50																										
ZZZZZZ			14:11																										
ZZZZZZ			14:32																										
ZZZZZZ			14:52																										
ZZZZZZ			15:13																										
ZZZZZZ			15:33																										
ZZZZZZ			15:54																										
CCV 240-287055/13	1		16:14	X	X																								
CCB 240-287055/14	1		16:35	X	X																								
ZZZZZZ			16:55																										
ZZZZZZ			17:16																										
ZZZZZZ			17:36																										
240-82240-2	1	T	17:57	X	X																								
240-82240-2 MS	1	T	18:18	X	X																								
240-82240-2 MSD	1	T	18:38	X	X																								
240-82240-3	1	T	18:59	X	X																								
240-82240-4	1	T	19:19	X	X																								
240-82240-5	1	T	19:40	X	X																								
ZZZZZZ			20:00																										
CCV 240-287055/25	1		20:21	X	X																								
CCB 240-287055/26	1		20:42	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/18/2017 10:38 End Date: 07/18/2017 10:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-287646/1	1	T	10:38	X																								
LCS 240-287646/2	1	T	10:38	X																								
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
240-82240-5	1	T	10:38	X																								
240-82240-4 DU	1	T	10:38	X																								
240-82240-4	1	T	10:38	X																								
240-82240-3	1	T	10:38	X																								
240-82240-2	1	T	10:38	X																								
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									
ZZZZZZ			10:38																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82240-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 07/18/2017 11:24 End Date: 07/18/2017 11:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
MB 180-217391/1	1	T	11:24	X																								
ZZZZZZ			11:24																									
180-68209-AP-1 DU	1	T	11:24	X																								
240-82240-2	1	T	11:24	X																								
240-82240-3	1	T	11:24	X																								
240-82240-4	1	T	11:24	X																								
240-82240-5	1	T	11:24	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 288082 Batch Start Date: 07/20/17 08:40 Batch Analyst: Weisend, Joseph

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00017		
LCS 240-288082/5		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-288082/6		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-82240-H-2	EW-1-MID-071217	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82240-H-3	EW-1-END-071217	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82240-H-4	EW-1-FINAL-071217	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82240-D-5	MRC-SW-15A-16A-071217	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82251-A-1 DU		2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-3115970
pH Buffer 2 ID	7-3072347
pH Buffer 3 ID	10-2951041
pH Buffer 4 ID	12-3072210
Sulfuric Acid Lot Number	3017600
Probe ID	WCP 127
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 279524 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279524/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279524/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279524/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279524/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279524/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279524/6 IC		300.0		5 mL	2 mL				
STD7 240-279524/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279524/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279524/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 279525 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279525/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279525/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279525/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279525/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279525/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279525/6 IC		300.0		5 mL	2 mL				
STD7 240-279525/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279525/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279525/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287054 Batch Start Date: 07/13/17 12:08 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-287054/1		300.0		5 mL	5 mL				
CCB 240-287054/2		300.0		5 mL					
MB 240-287054/3		300.0		5 mL					
LCS 240-287054/4		300.0		5 mL		5 mL			
CCV 240-287054/13		300.0		5 mL	5 mL				
CCB 240-287054/14		300.0		5 mL					
240-82240-H-2	EW-1-MID-071217	300.0	T	5 mL					
240-82240-H-2 MS	EW-1-MID-071217	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82240-H-2 MSD	EW-1-MID-071217	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82240-H-3	EW-1-END-071217	300.0	T	5 mL					
240-82240-H-4	EW-1-FINAL-071217	300.0	T	5 mL					
240-82240-D-5	MRC-SW-15A-16A-071217	300.0	T	5 mL					
240-82240-D-5	MRC-SW-15A-16A-071217	300.0	T	5 mL					
CCV 240-287054/25		300.0		5 mL	5 mL				
CCB 240-287054/26		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287055 Batch Start Date: 07/13/17 12:08 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-287055/1		300.0		5 mL	5 mL				
CCB 240-287055/2		300.0		5 mL					
MB 240-287055/3		300.0		5 mL					
LCS 240-287055/4		300.0		5 mL		5 mL			
CCV 240-287055/13		300.0		5 mL	5 mL				
CCB 240-287055/14		300.0		5 mL					
240-82240-H-2	EW-1-MID-071217	300.0	T	5 mL					
240-82240-H-2 MS	EW-1-MID-071217	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82240-H-2 MSD	EW-1-MID-071217	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82240-H-3	EW-1-END-071217	300.0	T	5 mL					
240-82240-H-4	EW-1-FINAL-071217	300.0	T	5 mL					
240-82240-D-5	MRC-SW-15A-16A-071217	300.0	T	5 mL					
240-82240-D-5	MRC-SW-15A-16A-071217	300.0	T	5 mL					
CCV 240-287055/25		300.0		5 mL	5 mL				
CCB 240-287055/26		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287646 Batch Start Date: 07/18/17 10:38 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date: 07/20/17 15:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-287646/1		SM 2540C			100 mL	3.5615 g	3.5623 g	3.5621 g	0 g
LCS 240-287646/2		SM 2540C			50 mL	3.6900 g	3.7008 g	3.7011 g	0 g
240-82240-D-5	MRC-SW-15A-16A-071217	SM 2540C	T	2801 umhos/cm	50 mL	3.7385 g	3.8143 g	3.8147 g	0 g
240-82240-H-4 DU	EW-1-FINAL-071217	SM 2540C	T	379 umhos/cm	100 mL	3.6598 g	3.6946 g	3.6944 g	0 g
240-82240-H-4	EW-1-FINAL-071217	SM 2540C	T	379 umhos/cm	100 mL	3.7352 g	3.7633 g	3.7635 g	0 g
240-82240-H-3	EW-1-END-071217	SM 2540C	T	374 umhos/cm	100 mL	3.6939 g	3.7141 g	3.7136 g	0 g
240-82240-H-2	EW-1-MID-071217	SM 2540C	T	365 umhos/cm	100 mL	3.6067 g	3.6253 g	3.6257 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-287646/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0008 g	0.0006 g	N/A g
LCS 240-287646/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0108 g	0.0111 g	N/A g
240-82240-D-5	MRC-SW-15A-16A-071217	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0758 g	0.0762 g	N/A g
240-82240-H-4 DU	EW-1-FINAL-071217	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0348 g	0.0346 g	N/A g
240-82240-H-4	EW-1-FINAL-071217	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0281 g	0.0283 g	N/A g
240-82240-H-3	EW-1-END-071217	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0202 g	0.0197 g	N/A g
240-82240-H-2	EW-1-MID-071217	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0186 g	0.019 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022		
MB 240-287646/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-287646/2		SM 2540C		N/A g	100 mL	OK	50 mL		
240-82240-D-5	MRC-SW-15A-16A-071217	SM 2540C	T	N/A g	100 mL	OK			
240-82240-H-4 DU	EW-1-FINAL-071217	SM 2540C	T	N/A g	100 mL	OK			
240-82240-H-4	EW-1-FINAL-071217	SM 2540C	T	N/A g	100 mL	OK			
240-82240-H-3	EW-1-END-071217	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82240-1

SDG No.:

Batch Number: 287646 Batch Start Date: 07/18/17 10:38 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date: 07/20/17 15:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022		
240-82240-H-2	EW-1-MID-071217	SM 2540C	T	N/A g	100 mL	OK			

Batch Notes	
Balance ID	B048
Batch Comment	TDS VESSELS--120116LR-6336
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	7/19/17 16:20
Constant Weight (WT2) Date/Time Out	7/20/17 7:00
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Constant Weight (WT3) Date/time In	7/20/17 13:15
Constant Weight (WT3) Date/Time Out	7/20/17 14:53
Constant Weight (WT3) Temp In	180 Degrees C
Constant Weight (WT3) Temp Out	180 Degrees C
Corrected Temperature in Oven	104 Degrees C
Corrected Temperature out of Oven	104 Degrees C
Date/Time Samples placed in Oven	07/18/17 11:57
Date/Time Samples Removed from Oven	7/19/17 11:06
Filter Paper ID	3153840
Nominal Amount Used	100 mL
Oven ID	O06/O01
Weight(WT1) Start Date/Time	7/19/17 11:06
Weight(WT1) Date/Time Out	7/19/17 13:25
Weight(WT1) Start Temp	180 Degrees C
Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.7/C2.7

Chain of Custody Record

180325

TestAmerica

BALTIMORE

Client Information	Sampler: Stu Cameron	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-44119-19216.1
Client Contact: Mr. Stuart Cameron	Phone: (703) 342-8389	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.		Analysis Requested		Job #: 112IC07896-LI 19
Address: 20251 Century Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Germantown	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874				
Phone: (301) 528-5552	PO #: 1119970			Other:
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Complex, Block F	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Alkalinity (2320B)	Sulfate, Bromide, NO2, NO3, TDS (300.0)	Iron + Manganese (6010C)	Salinity (2520B)	Hardness (2340C)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I	H	D	I	D		
TB-071217	7/12/17	—	—	Water			X							
EW-1-MID-071217	7/12/17	0830	G	Water	N	N	X	X	X	X	X	X		
EW-1-END-071217	7/12/17	1100	G	W	N	N	X	X	X	X	X	X		
EW-1-FINAL-071217	7/12/17	1310	G	W	N	N	X	X	X	X	X	X		
MRC-SW-15A-16A-071217	7/12/17	1400	G	W	N	N	X	X	X	X	X			

240-82240 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7-12-17/1415	Tetra Tech		7-12-2017/1415	TestAmerica
2		7-12-2017/1544	TestAmerica		7-13-17 1015	TA
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 82237**

Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 7-13-17 Opened on 7-13-17

FedEx: 1st Grd EXP UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-8 (CF -0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN #36 (CF +0°C) Observed Cooler Temp. 2.7 °C Corrected Cooler Temp. 2.7 °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) (3 x 40) trip blanks were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
EW-1-MID-071217	240-82240-F-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-1-MID-071217	240-82240-G-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-1-END-071217	240-82240-F-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-1-END-071217	240-82240-G-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-1-FINAL-071217	240-82240-F-4	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-1-FINAL-071217	240-82240-G-4	Plastic 250ml - with Nitric Acid	<2	_____	_____
MRC-SW-15A-16A-071217	240-82240-C-5	Plastic 250ml - with Nitric Acid	<2	_____	_____

ANALYTICAL REPORT

Job Number: 240-82290-1

Job Description: MRC Block E

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Mike Martin



Approved for release.
John McFadden
Project Manager I
7/21/2017 5:57 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
07/21/2017

cc: Tony Apanavage
Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Detection Summary 8

Client Sample Results 9

Default Detection Limits 11

Surrogate Summary 13

QC Sample Results 14

QC Association 19

Chronicle 21

Certification Summary 22

Method Summary 23

Sample Summary 24

Manual Integration Summary 25

Reagent Traceability 28

Organic Sample Data 48

GC/MS VOA 48

Method 8260C 48

Method 8260C QC Summary 49

Method 8260C Sample Data 59

Standards Data 61

Method 8260C ICAL Data 61

Method 8260C CCAL Data 71

Raw QC Data 79

Method 8260C Blank Data 79

Table of Contents

Method 8260C LCS/LCSD Data 81

Method 8260C MS/MSD Data 83

Method 8260C Run Logs 85

Inorganic Sample Data 87

Metals Data 87

Met Cover Page 88

Met Sample Data 89

Met QC Data 90

Met ICV/CCV 90

Met Blanks 93

Met ICSA/ICSAB 96

Met MS/MSD/PDS 98

Met LCS/LCSD 100

Met Serial Dilution 101

Met MDL 102

Met IECF 106

Met Linear Ranges 107

Met Preparation Log 108

Met Analysis Run Log 109

Met Prep Data 118

General Chemistry Data 119

Gen Chem Cover Page 120

Gen Chem Sample Data 122

Gen Chem QC Data 124

Gen Chem ICV/CCV 124

Gen Chem Blanks 126

Table of Contents

Gen Chem MS/MSD/PDS 128

Gen Chem Duplicates 130

Gen Chem LCS/LCSD 132

Gen Chem MDL 133

Gen Chem Analysis Run Log 141

Gen Chem Prep Data 146

Subcontracted Data 153

Shipping and Receiving Documents 154

Client Chain of Custody 155

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E

Report Number: 240-82290-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Salinity analysis was performed at TestAmerica Pittsburgh Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The sample was received on 7/14/2017 11:47 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Sample EW-2-START-071217 (240-82290-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/21/2017.

Methylene Chloride was detected in method blank MB 240-288056/8 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample EW-2-START-071217 (240-82290-1)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-288056 was outside the method criteria for the following analytes: Dichlorodi fluoromethane and Trichlorofluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

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

TOTAL RECOVERABLE METALS (ICP)
Sample EW-2-START-071217 (240-82290-1) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/17/2017 and analyzed on 07/18/2017.

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

HARDNESS
Sample EW-2-START-071217 (240-82290-1) was analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 07/19/2017.

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

ALKALINITY
Sample EW-2-START-071217 (240-82290-1) was analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/18/2017.

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

TOTAL DISSOLVED SOLIDS
Sample EW-2-START-071217 (240-82290-1) was analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/17/2017.

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

ANIONS
Sample EW-2-START-071217 (240-82290-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/14/2017.

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

ANIONS
Sample EW-2-START-071217 (240-82290-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/14/2017.

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

SALINITY
Sample EW-2-START-071217 (240-82290-1) was analyzed for Salinity in accordance with SM 2520B. The samples were analyzed on 07/18/2017.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Client Sample ID: EW-2-START-071217

Lab Sample ID: 240-82290-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	67	J B	100	53	ug/L	100		8260C	Total/NA
Trichloroethene	3200		100	33	ug/L	100		8260C	Total/NA
Calcium hardness as calcium carbonate	12		12	12	mg/L	1		2340B-1997	Total Recoverable
Iron	1300		100	25	ug/L	1		6010C	Total Recoverable
Manganese	250		15	5.1	ug/L	1		6010C	Total Recoverable
Alkalinity	4.9	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bromide	0.76		0.50	0.044	mg/L	1		300.0	Total/NA
Nitrite as N	0.016	J	0.10	0.014	mg/L	1		300.0	Total/NA
Nitrate as N	0.53		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	7.0		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	150		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EW-2-START-071217

Date Collected: 07/12/17 16:30
Date Received: 07/14/17 11:47

Lab Sample ID: 240-82290-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	23	U	100	23	ug/L			07/21/17 00:43	100
1,1,2,2-Tetrachloroethane	32	U	100	32	ug/L			07/21/17 00:43	100
1,1,2-Trichloro-1,2,2-trifluoroethane	41	U	100	41	ug/L			07/21/17 00:43	100
1,1,2-Trichloroethane	34	U	100	34	ug/L			07/21/17 00:43	100
1,1-Dichloroethane	25	U	100	25	ug/L			07/21/17 00:43	100
1,1-Dichloroethene	27	U	100	27	ug/L			07/21/17 00:43	100
1,2,4-Trichlorobenzene	27	U	100	27	ug/L			07/21/17 00:43	100
1,2-Dibromo-3-Chloropropane	47	U	200	47	ug/L			07/21/17 00:43	100
Ethylene Dibromide	23	U	100	23	ug/L			07/21/17 00:43	100
1,2-Dichlorobenzene	26	U	100	26	ug/L			07/21/17 00:43	100
1,2-Dichloroethane	30	U	100	30	ug/L			07/21/17 00:43	100
1,2-Dichloropropane	30	U	100	30	ug/L			07/21/17 00:43	100
1,3-Dichlorobenzene	32	U	100	32	ug/L			07/21/17 00:43	100
1,4-Dichlorobenzene	23	U	100	23	ug/L			07/21/17 00:43	100
2-Butanone (MEK)	100	U	1000	100	ug/L			07/21/17 00:43	100
2-Hexanone	120	U	1000	120	ug/L			07/21/17 00:43	100
4-Methyl-2-pentanone (MIBK)	71	U	1000	71	ug/L			07/21/17 00:43	100
Acetone	180	U	1000	180	ug/L			07/21/17 00:43	100
Benzene	28	U	100	28	ug/L			07/21/17 00:43	100
Dichlorobromomethane	30	U	100	30	ug/L			07/21/17 00:43	100
Bromoform	43	U	100	43	ug/L			07/21/17 00:43	100
Bromomethane	42	U	100	42	ug/L			07/21/17 00:43	100
Carbon disulfide	34	U	100	34	ug/L			07/21/17 00:43	100
Carbon tetrachloride	35	U	100	35	ug/L			07/21/17 00:43	100
Chlorobenzene	32	U	100	32	ug/L			07/21/17 00:43	100
Chloroethane	41	U	100	41	ug/L			07/21/17 00:43	100
Chloroform	31	U	100	31	ug/L			07/21/17 00:43	100
Chloromethane	43	U	100	43	ug/L			07/21/17 00:43	100
cis-1,2-Dichloroethene	30	U	100	30	ug/L			07/21/17 00:43	100
cis-1,3-Dichloropropene	26	U	100	26	ug/L			07/21/17 00:43	100
Cyclohexane	44	U	100	44	ug/L			07/21/17 00:43	100
Chlorodibromomethane	25	U	100	25	ug/L			07/21/17 00:43	100
Dichlorodifluoromethane	50	U	100	50	ug/L			07/21/17 00:43	100
Ethylbenzene	26	U	100	26	ug/L			07/21/17 00:43	100
Isopropylbenzene	21	U	100	21	ug/L			07/21/17 00:43	100
Methyl acetate	140	U	1000	140	ug/L			07/21/17 00:43	100
Methyl tert-butyl ether	27	U	100	27	ug/L			07/21/17 00:43	100
Methylcyclohexane	45	U	100	45	ug/L			07/21/17 00:43	100
Methylene Chloride	**67**	**J B**	100	53	ug/L			07/21/17 00:43	100
Styrene	23	U	100	23	ug/L			07/21/17 00:43	100
Tetrachloroethene	30	U	100	30	ug/L			07/21/17 00:43	100
Toluene	23	U	100	23	ug/L			07/21/17 00:43	100
trans-1,2-Dichloroethene	29	U	100	29	ug/L			07/21/17 00:43	100
trans-1,3-Dichloropropene	31	U	100	31	ug/L			07/21/17 00:43	100
Trichloroethene	**3200**		100	33	ug/L			07/21/17 00:43	100
Trichlorofluoromethane	50	U	100	50	ug/L			07/21/17 00:43	100
Vinyl chloride	45	U	100	45	ug/L			07/21/17 00:43	100
Xylenes, Total	24	U	200	24	ug/L			07/21/17 00:43	100

Client Sample ID: EW-2-START-071217

Date Collected: 07/12/17 16:30
Date Received: 07/14/17 11:47

Lab Sample ID: 240-82290-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*73 - 120*		*07/21/17 00:43*	*100*
Dibromofluoromethane (Surr)	*98*		*69 - 124*		*07/21/17 00:43*	*100*
4-Bromofluorobenzene (Surr)	*102*		*69 - 120*		*07/21/17 00:43*	*100*
1,2-Dichloroethane-d4 (Surr)	*104*		*61 - 138*		*07/21/17 00:43*	*100*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	33	U	33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	**12**		12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	21	U	21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1300**		100	25	ug/L		07/17/17 14:00	07/18/17 15:09	1
Manganese	**250**		15	5.1	ug/L		07/17/17 14:00	07/18/17 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**4.9**	**J**	5.0	2.6	mg/L			07/18/17 20:47	1
Bromide	**0.76**		0.50	0.044	mg/L			07/14/17 13:46	1
Nitrite as N	**0.016**	**J**	0.10	0.014	mg/L			07/14/17 13:46	1
Nitrate as N	**0.53**		0.10	0.014	mg/L			07/14/17 13:46	1
Sulfate	**7.0**		1.0	0.35	mg/L			07/14/17 13:46	1
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1
Total Dissolved Solids	**150**		10	7.8	mg/L			07/17/17 13:48	1

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

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

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	1.0	0.23	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.32	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.41	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.34	ug/L	8260C
1,1-Dichloroethane	1.0	0.25	ug/L	8260C
1,1-Dichloroethene	1.0	0.27	ug/L	8260C
1,2,4-Trichlorobenzene	1.0	0.27	ug/L	8260C
1,2-Dibromo-3-Chloropropane	2.0	0.47	ug/L	8260C
1,2-Dichlorobenzene	1.0	0.26	ug/L	8260C
1,2-Dichloroethane	1.0	0.30	ug/L	8260C
1,2-Dichloropropane	1.0	0.30	ug/L	8260C
1,3-Dichlorobenzene	1.0	0.32	ug/L	8260C
1,4-Dichlorobenzene	1.0	0.23	ug/L	8260C
2-Butanone (MEK)	10	1.0	ug/L	8260C
2-Hexanone	10	1.2	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	10	0.71	ug/L	8260C
Acetone	10	1.8	ug/L	8260C
Benzene	1.0	0.28	ug/L	8260C
Bromoform	1.0	0.43	ug/L	8260C
Bromomethane	1.0	0.42	ug/L	8260C
Carbon disulfide	1.0	0.34	ug/L	8260C
Carbon tetrachloride	1.0	0.35	ug/L	8260C
Chlorobenzene	1.0	0.32	ug/L	8260C
Chlorodibromomethane	1.0	0.25	ug/L	8260C
Chloroethane	1.0	0.41	ug/L	8260C
Chloroform	1.0	0.31	ug/L	8260C
Chloromethane	1.0	0.43	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.26	ug/L	8260C
Cyclohexane	1.0	0.44	ug/L	8260C
Dichlorobromomethane	1.0	0.30	ug/L	8260C
Dichlorodifluoromethane	1.0	0.50	ug/L	8260C
Ethylbenzene	1.0	0.26	ug/L	8260C
Ethylene Dibromide	1.0	0.23	ug/L	8260C
Isopropylbenzene	1.0	0.21	ug/L	8260C
Methyl acetate	10	1.4	ug/L	8260C
Methyl tert-butyl ether	1.0	0.27	ug/L	8260C
Methylcyclohexane	1.0	0.45	ug/L	8260C
Methylene Chloride	1.0	0.53	ug/L	8260C
Styrene	1.0	0.23	ug/L	8260C
Tetrachloroethene	1.0	0.30	ug/L	8260C
Toluene	1.0	0.23	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.31	ug/L	8260C
Trichloroethene	1.0	0.33	ug/L	8260C
Trichlorofluoromethane	1.0	0.50	ug/L	8260C
Vinyl chloride	1.0	0.45	ug/L	8260C
Xylenes, Total	2.0	0.24	ug/L	8260C

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	RL	MDL	Units	Method
Calcium hardness as calcium carbonate	12	12	mg/L	2340B-1997
Hardness as calcium carbonate	33	33	mg/L	2340B-1997
Magnesium hardness as calcium carbonate	21	21	mg/L	2340B-1997

Method: 6010C - Metals (ICP) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units	Method
Iron	100	25	ug/L	6010C
Manganese	15	5.1	ug/L	6010C

General Chemistry

Analyte	RL	MDL	Units	Method
Alkalinity	5.0	2.6	mg/L	2320B-1997
Bromide	0.50	0.044	mg/L	300.0
Nitrate as N	0.10	0.014	mg/L	300.0
Nitrite as N	0.10	0.014	mg/L	300.0
Sulfate	1.0	0.35	mg/L	300.0
Salinity	2.0	2.0	No Unit	SM 2520B
Total Dissolved Solids	10	7.8	mg/L	SM 2540C

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	12DCE
Lab Sample ID	Client Sample ID	(73-120)	(69-124)	(69-120)	(61-138)
240-82281-E-8 MS	Matrix Spike	102	101	108	99
240-82281-H-8 MSD	Matrix Spike Duplicate	100	103	107	103
240-82290-1	EW-2-START-071217	101	98	102	104
LCS 240-288056/4	Lab Control Sample	101	105	110	102
MB 240-288056/8	Method Blank	104	98	105	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-288056/8
Matrix: Water
Analysis Batch: 288056

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/20/17 16:27	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/20/17 16:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/20/17 16:27	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/20/17 16:27	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/20/17 16:27	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/20/17 16:27	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/20/17 16:27	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/20/17 16:27	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/20/17 16:27	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/20/17 16:27	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/20/17 16:27	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/20/17 16:27	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/20/17 16:27	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/20/17 16:27	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/20/17 16:27	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/20/17 16:27	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/20/17 16:27	1
Acetone	1.8	U	10	1.8	ug/L			07/20/17 16:27	1
Benzene	0.28	U	1.0	0.28	ug/L			07/20/17 16:27	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/20/17 16:27	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/20/17 16:27	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/20/17 16:27	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/20/17 16:27	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/20/17 16:27	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/20/17 16:27	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/20/17 16:27	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/20/17 16:27	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/20/17 16:27	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/20/17 16:27	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/20/17 16:27	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/20/17 16:27	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/20/17 16:27	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/20/17 16:27	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/20/17 16:27	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/20/17 16:27	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/20/17 16:27	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/20/17 16:27	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/20/17 16:27	1
Methylene Chloride	0.852	J	1.0	0.53	ug/L			07/20/17 16:27	1
Styrene	0.23	U	1.0	0.23	ug/L			07/20/17 16:27	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/20/17 16:27	1
Toluene	0.23	U	1.0	0.23	ug/L			07/20/17 16:27	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/20/17 16:27	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/20/17 16:27	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/20/17 16:27	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/20/17 16:27	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/20/17 16:27	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/20/17 16:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*104*		*73 - 120*		*07/20/17 16:27*	*1*
Dibromofluoromethane (Surr)	*98*		*69 - 124*		*07/20/17 16:27*	*1*
4-Bromofluorobenzene (Surr)	*105*		*69 - 120*		*07/20/17 16:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*61 - 138*		*07/20/17 16:27*	*1*

Lab Sample ID: LCS 240-288056/4
Matrix: Water
Analysis Batch: 288056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.4		ug/L		117	64 - 147
1,1,2,2-Tetrachloroethane	20.0	16.2		ug/L		81	58 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.0		ug/L		110	65 - 144
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	76 - 121
1,1-Dichloroethane	20.0	23.1		ug/L		115	74 - 120
1,1-Dichloroethene	20.0	22.3		ug/L		111	65 - 127
1,2,4-Trichlorobenzene	20.0	19.8		ug/L		99	34 - 141
1,2-Dibromo-3-Chloropropane	20.0	15.5		ug/L		78	50 - 130
Ethylene Dibromide	20.0	19.9		ug/L		100	80 - 120
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	80 - 120
1,2-Dichloroethane	20.0	22.9		ug/L		114	68 - 133
1,2-Dichloropropane	20.0	21.9		ug/L		109	78 - 127
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 120
1,4-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 120
2-Butanone (MEK)	40.0	37.2		ug/L		93	43 - 149
2-Hexanone	40.0	35.3		ug/L		88	28 - 169
4-Methyl-2-pentanone (MIBK)	40.0	38.0		ug/L		95	53 - 144
Acetone	40.0	40.2		ug/L		101	35 - 131
Benzene	20.0	21.4		ug/L		107	79 - 120
Dichlorobromomethane	20.0	20.4		ug/L		102	79 - 125
Bromoform	20.0	20.1		ug/L		100	55 - 145
Bromomethane	20.0	20.5		ug/L		102	17 - 158
Carbon disulfide	20.0	19.5		ug/L		97	49 - 141
Carbon tetrachloride	20.0	23.2		ug/L		116	55 - 171
Chlorobenzene	20.0	20.1		ug/L		101	80 - 120
Chloroethane	20.0	22.0		ug/L		110	10 - 149
Chloroform	20.0	20.8		ug/L		104	80 - 120
Chloromethane	20.0	23.9		ug/L		119	59 - 124
cis-1,2-Dichloroethene	20.0	23.5		ug/L		117	77 - 120
cis-1,3-Dichloropropene	20.0	22.4		ug/L		112	75 - 120
Cyclohexane	20.0	21.0		ug/L		105	66 - 135
Chlorodibromomethane	20.0	19.8		ug/L		99	64 - 129
Dichlorodifluoromethane	20.0	27.1		ug/L		135	42 - 141
Ethylbenzene	20.0	21.5		ug/L		108	80 - 120
Isopropylbenzene	20.0	21.5		ug/L		108	80 - 128
Methyl acetate	40.0	37.1		ug/L		93	63 - 137
Methyl tert-butyl ether	20.0	21.6		ug/L		108	73 - 120
Methylcyclohexane	20.0	20.0		ug/L		100	63 - 141
Methylene Chloride	20.0	21.3		ug/L		107	64 - 140
Styrene	20.0	21.5		ug/L		108	80 - 121
Tetrachloroethene	20.0	20.7		ug/L		103	80 - 122
Toluene	20.0	20.9		ug/L		104	78 - 120
trans-1,2-Dichloroethene	20.0	23.4		ug/L		117	74 - 124

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

Lab Sample ID: LCS 240-288056/4
Matrix: Water
Analysis Batch: 288056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	18.4		ug/L		92	67 - 120
Trichloroethene	20.0	23.0		ug/L		115	76 - 124
Trichlorofluoromethane	20.0	25.0		ug/L		125	27 - 176
Vinyl chloride	20.0	22.7		ug/L		113	65 - 124
Xylenes, Total	40.0	43.1		ug/L		108	80 - 120
m-Xylene & p-Xylene	20.0	21.2		ug/L		106	80 - 120
o-Xylene	20.0	21.9		ug/L		109	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*105*		*69 - 124*
4-Bromofluorobenzene (Surr)	*110*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*102*		*61 - 138*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-287479/1-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25	U	100	25	ug/L		07/17/17 14:00	07/18/17 13:44	1
Manganese	5.1	U	15	5.1	ug/L		07/17/17 14:00	07/18/17 13:44	1

Lab Sample ID: LCS 240-287479/2-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1000	1020		ug/L		102	80 - 120
Manganese	500	494		ug/L		99	80 - 120
Calcium	50000	50000		ug/L		100	80 - 120
Magnesium	50000	49700		ug/L		99	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-287816/3
Matrix: Water
Analysis Batch: 287816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/18/17 17:05	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-287816/2
Matrix: Water
Analysis Batch: 287816

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	377	385		mg/L		102	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-287197/19
Matrix: Water
Analysis Batch: 287197

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.044	U	0.50	0.044	mg/L			07/14/17 16:10	1
Sulfate	0.35	U	1.0	0.35	mg/L			07/14/17 16:10	1

Lab Sample ID: LCS 240-287197/20
Matrix: Water
Analysis Batch: 287197

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.6		mg/L		106	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: 240-82290-1 MS
Matrix: Water
Analysis Batch: 287197

Client Sample ID: EW-2-START-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.76		10.0	11.4		mg/L		107	80 - 120
Sulfate	7.0		50.0	58.5		mg/L		103	80 - 120

Lab Sample ID: 240-82290-1 MSD
Matrix: Water
Analysis Batch: 287197

Client Sample ID: EW-2-START-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.76		10.0	11.6		mg/L		109	80 - 120	2	15
Sulfate	7.0		50.0	59.6		mg/L		105	80 - 120	2	15

Lab Sample ID: MB 240-287198/19
Matrix: Water
Analysis Batch: 287198

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U	0.10	0.014	mg/L			07/14/17 16:10	1
Nitrate as N	0.014	U	0.10	0.014	mg/L			07/14/17 16:10	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-287198/20
Matrix: Water
Analysis Batch: 287198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.51		mg/L		100	90 - 110
Nitrate as N	2.50	2.63		mg/L		105	90 - 110

Lab Sample ID: 240-82290-1 MS
Matrix: Water
Analysis Batch: 287198

Client Sample ID: EW-2-START-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.016	J	2.50	2.73		mg/L		108	80 - 120
Nitrate as N	0.53		2.50	3.16		mg/L		105	80 - 120

Lab Sample ID: 240-82290-1 MSD
Matrix: Water
Analysis Batch: 287198

Client Sample ID: EW-2-START-071217
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.016	J	2.50	2.73		mg/L		108	80 - 120	0	15
Nitrate as N	0.53		2.50	3.21		mg/L		107	80 - 120	2	15

Method: SM 2520B - Salinity

Lab Sample ID: MB 180-217391/1
Matrix: Water
Analysis Batch: 217391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			07/18/17 11:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-287522/1
Matrix: Water
Analysis Batch: 287522

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			07/17/17 13:48	1

Lab Sample ID: LCS 240-287522/2
Matrix: Water
Analysis Batch: 287522

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	242	270		mg/L		112	80 - 120

GC/MS VOA

Analysis Batch: 288056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	8260C	
MB 240-288056/8	Method Blank	Total/NA	Water	8260C	
LCS 240-288056/4	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 287479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total Recoverable	Water	3005A	
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 287672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total Recoverable	Water	6010C	287479
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	6010C	287479
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	6010C	287479

Analysis Batch: 287913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total Recoverable	Water	2340B-1997	

General Chemistry

Analysis Batch: 217391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	SM 2520B	
MB 180-217391/1	Method Blank	Total/NA	Water	SM 2520B	

Analysis Batch: 287197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	300.0	
MB 240-287197/19	Method Blank	Total/NA	Water	300.0	
LCS 240-287197/20	Lab Control Sample	Total/NA	Water	300.0	
240-82290-1 MS	EW-2-START-071217	Total/NA	Water	300.0	
240-82290-1 MSD	EW-2-START-071217	Total/NA	Water	300.0	

Analysis Batch: 287198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	300.0	
MB 240-287198/19	Method Blank	Total/NA	Water	300.0	
LCS 240-287198/20	Lab Control Sample	Total/NA	Water	300.0	
240-82290-1 MS	EW-2-START-071217	Total/NA	Water	300.0	
240-82290-1 MSD	EW-2-START-071217	Total/NA	Water	300.0	

Analysis Batch: 287522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	SM 2540C	
MB 240-287522/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-287522/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 287816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82290-1	EW-2-START-071217	Total/NA	Water	2320B-1997	
MB 240-287816/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-287816/2	Lab Control Sample	Total/NA	Water	2320B-1997	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Client Sample ID: EW-2-START-071217

Date Collected: 07/12/17 16:30
Date Received: 07/14/17 11:47

Lab Sample ID: 240-82290-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	288056	07/21/17 00:43	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 15:09	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	287816	07/18/17 20:47	CL	TAL CAN
Total/NA	Analysis	300.0		1	287197	07/14/17 13:46	JMB	TAL CAN
Total/NA	Analysis	300.0		1	287198	07/14/17 13:46	JMB	TAL CAN
Total/NA	Analysis	SM 2520B		1	217391	07/18/17 11:24	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287522	07/17/17 13:48	JMB	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-17 *
Kansas	NELAP	7	E-10336	01-31-18
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17
Minnesota	NELAP	5	039-999-348	12-31-17
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-17 *
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-17 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18
West Virginia DEP	State Program	3	210	12-31-17
Wisconsin	State Program	5	999518190	08-31-17 *

Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
SM 2520B	Salinity	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E

TestAmerica Job ID: 240-82290-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-82290-1	EW-2-START-071217	Water	07/12/17 16:30	07/14/17 11:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: A3UX9 Analysis Batch Number: 286596

Lab Sample ID: STD8260 240-286596/9 IC Client Sample ID:

Date Analyzed: 07/10/17 19:57 Lab File ID: UX964312.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.38	Split Peak	laveyt	07/10/17 21:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279524

Lab Sample ID: STD1 240-279524/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.38	Unspecified		
Sulfate	15.09	Unspecified		

Lab Sample ID: STD4 240-279524/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.37	Unspecified		
Sulfate	14.95	Unspecified		

Lab Sample ID: STD5 240-279524/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.36	Unspecified		
Sulfate	14.78	Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279525

Lab Sample ID: STD1 240-279525/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.18	Unspecified		
Nitrate as N	11.98	Unspecified		

Lab Sample ID: STD4 240-279525/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.95	Unspecified		

Lab Sample ID: STD5 240-279525/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.92	Unspecified		

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MT6500ICV_00038	12/14/17	06/14/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV1_00007	5 mL	Calcium	25000 ug/L
							Iron	12500 ug/L
							Magnesium	25000 ug/L
					MTTRICV3_00008	6 mL	Manganese	1500 ug/L
.MTTRICV1_00007	02/26/18	CPI, Lot 1095565			(Purchased Reagent)		Calcium	5000 mg/L
							Iron	2500 mg/L
							Magnesium	5000 mg/L
.MTTRICV3_00008	05/22/18	CPI, Lot 1099181			(Purchased Reagent)		Manganese	250 mg/L
MTAGSPIKEW_00075	01/11/18	07/11/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00007	2.5 mL	Ag	2500 ug/L
					MTTMHNO3_00123	50 mL	Nitric acid	50000000 ug/L
.MTAG_00007	12/08/18	HIGH PURITY STANDARDS, Lot 1713128			(Purchased Reagent)		Ag	1000 ug/mL
.MTTMHNO3_00123	06/26/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00065	09/29/17	06/24/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							As	100000 ug/L
							B	50000 ug/L
							Ba	100000 ug/L
							Be	2500 ug/L
							Cd	2500 ug/L
							Co	25000 ug/L
							Cr	10000 ug/L
							Cu	12500 ug/L
							Iron	50000 ug/L
							Manganese	25000 ug/L
							Ni	25000 ug/L
							Pb	25000 ug/L
							Se	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00119	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							As	2000 ug/mL
							B	1000 ug/mL
							Ba	2000 ug/mL
							Be	50 ug/mL
							Cd	50 ug/mL
							Co	500 ug/mL
							Cr	200 ug/mL
							Cu	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	1000 ug/mL
							Manganese	500 ug/mL
							Ni	500 ug/mL
							Pb	500 ug/mL
							Se	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00119	05/16/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00073	12/22/17	06/22/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00122	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Calcium	2500 mg/L
							K	2500 mg/L
							Magnesium	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00122	06/15/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Calcium	10000 ug/mL
							K	10000 ug/mL
							Magnesium	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00104	01/07/18	07/07/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00018	195 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
					MTICPCCV1_00019	5 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
.MTICPCCV1_00018	05/10/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
.MTICPCCV1_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
MTICPICSABW_00015	12/08/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							As	1000 ug/L
							B	500 ug/L
							Ba	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Be	500 ug/L
							Calcium	500000 ug/L
							Cd	1000 ug/L
							Co	500 ug/L
							Cr	500 ug/L
							Cu	500 ug/L
							Iron	200000 ug/L
							K	10000 ug/L
							Li	500 ug/L
							Magnesium	500000 ug/L
							Manganese	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Pb	1000 ug/L
							Se	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Ag	1000 ug/L
							Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							As	10000 ug/L
							B	5000 ug/L
							Ba	5000 ug/L
							Be	5000 ug/L
							Calcium	5000000 ug/L
							Cd	10000 ug/L
							Co	5000 ug/L
							Cr	5000 ug/L
							Cu	5000 ug/L
							Iron	2000000 ug/L
							K	100000 ug/L
							Li	5000 ug/L
							Magnesium	5000000 ug/L
							Manganese	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Pb	10000 ug/L
							Se	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Ag	10000 ug/L
							Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTTMHCL_00162	06/28/19	JT Baker(Avantor), Lot 0000162118			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00049	01/17/18	07/17/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Calcium	5000 ug/L
							Iron	200 ug/L
							Magnesium	5000 ug/L
							Manganese	15 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Calcium	100000 ug/L
							Iron	4000 ug/L
							Magnesium	100000 ug/L
							Manganese	300 ug/L
MTTRICSAW_00035	12/23/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00015	100 mL	Al	500000 ug/L
							Calcium	500000 ug/L
							Iron	200000 ug/L
							Magnesium	500000 ug/L
.MTTRICSA_00015	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
vm100is_stk_00033	11/24/17	05/24/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00026	12/16/17	06/16/17	MEOH, Lot 147462	100 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00027	07/31/21	Restek, Lot A0120212			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00289	07/14/17	07/07/17	MEOH, Lot na	4 mL	vm50ss_stk_00074	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00074	12/15/17	06/15/17	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00206	07/16/17	07/09/17	MEOH, Lot na	4 mL	VMACROLSTD_00051	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00051	07/31/17	07/01/17	MEOH, Lot 0000147462	20 mL	VM568720_00020	250 uL	Acrolein	250 ug/mL
..VM568720_00020	07/31/17		restek, Lot A0124374		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASGW_00217	07/16/17	07/09/17	MEOH, Lot NA	4 mL	VMFASG_00060	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00060	07/24/17	06/24/17	MEOH, Lot 0000147462	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00218	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMFASG_00061	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00061	08/14/17	07/14/17	MEOH, Lot +181520000147462JF	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00210	07/16/17	07/09/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00001	2 mL	1,1,1-Trichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00211	07/24/17	07/17/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00001	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmrgas_00207	07/16/17	07/09/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19	Restek, Lot A0118719			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00208	07/24/17	07/17/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00243	07/16/17	07/09/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00002	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569723_00003	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00010	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00001	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00002	03/31/18		restek, Lot A0109994		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569723_00003	07/31/18		restek, Lot A0112895		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00010	09/30/17		Restek, Lot A0125716		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VMRPRIMW_00244	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00001	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
WCICCALSOLN_00283	06/16/17	05/16/17	ELUENT, Lot 1847588	20 mL	WCICSOLNA1_00016	1.6 mL	Bromide	40 mg/L
							Chloride	200 mg/L
							Fluoride	10 mg/L
							Nitrate as N	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	200 mg/L
					WCICSOLNB1_00015	1.6 mL	Nitrite as N	10 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICCCV_00776	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA1_00016	1 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB1_00015	1 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICLCS_00614	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA2_00017	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00017	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00017	11/30/17	High Purity Standards, Lot 1632824			(Purchased Reagent)		Bromide	100 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
.WCICSOLNB2_00017	11/30/17	High Purity Standards, Lot 1632825			(Purchased Reagent)		Nitrite as N	25 ug/mL
WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCPHENOMINER_00017	07/31/19	PHENOVA-WIBBY, Lot 869-08			(Purchased Reagent)		Alkalinity	377 mg/L
WCPHENOVSOLID_00022	07/31/19	PHENOVA- WIBBY, Lot 8169-09			(Purchased Reagent)		Total Dissolved Solids	242 mg/L

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
EW-2-START-071217	240-82290-1	98	104	101	102
	MB 240-288056/8	98	104	104	105
	LCS 240-288056/4	105	102	101	110
	240-82281-E-8 MS	101	99	102	108
	240-82281-H-8 MSD	103	103	100	107

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964529.D

Lab ID: LCS 240-288056/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	23.4	117	64-147	
1,1,2,2-Tetrachloroethane	20.0	16.2	81	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.0	110	65-144	
1,1,2-Trichloroethane	20.0	20.0	100	76-121	
1,1-Dichloroethane	20.0	23.1	115	74-120	
1,1-Dichloroethene	20.0	22.3	111	65-127	
1,2,4-Trichlorobenzene	20.0	19.8	99	34-141	
1,2-Dibromo-3-Chloropropane	20.0	15.5	78	50-130	
Ethylene Dibromide	20.0	19.9	100	80-120	
1,2-Dichlorobenzene	20.0	19.7	99	80-120	
1,2-Dichloroethane	20.0	22.9	114	68-133	
1,2-Dichloropropane	20.0	21.9	109	78-127	
1,3-Dichlorobenzene	20.0	20.5	102	80-120	
1,4-Dichlorobenzene	20.0	20.1	100	80-120	
2-Butanone (MEK)	40.0	37.2	93	43-149	
2-Hexanone	40.0	35.3	88	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	38.0	95	53-144	
Acetone	40.0	40.2	101	35-131	
Benzene	20.0	21.4	107	79-120	
Dichlorobromomethane	20.0	20.4	102	79-125	
Bromoform	20.0	20.1	100	55-145	
Bromomethane	20.0	20.5	102	17-158	
Carbon disulfide	20.0	19.5	97	49-141	
Carbon tetrachloride	20.0	23.2	116	55-171	
Chlorobenzene	20.0	20.1	101	80-120	
Chloroethane	20.0	22.0	110	10-149	
Chloroform	20.0	20.8	104	80-120	
Chloromethane	20.0	23.9	119	59-124	
cis-1,2-Dichloroethene	20.0	23.5	117	77-120	
cis-1,3-Dichloropropene	20.0	22.4	112	75-120	
Cyclohexane	20.0	21.0	105	66-135	
Chlorodibromomethane	20.0	19.8	99	64-129	
Dichlorodifluoromethane	20.0	27.1	135	42-141	
Ethylbenzene	20.0	21.5	108	80-120	
Isopropylbenzene	20.0	21.5	108	80-128	
Methyl acetate	40.0	37.1	93	63-137	
Methyl tert-butyl ether	20.0	21.6	108	73-120	
Methylcyclohexane	20.0	20.0	100	63-141	
Methylene Chloride	20.0	21.3	107	64-140	
Styrene	20.0	21.5	108	80-121	
Tetrachloroethene	20.0	20.7	103	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964529.D

Lab ID: LCS 240-288056/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.9	104	78-120	
trans-1,2-Dichloroethene	20.0	23.4	117	74-124	
trans-1,3-Dichloropropene	20.0	18.4	92	67-120	
Trichloroethene	20.0	23.0	115	76-124	
Trichlorofluoromethane	20.0	25.0	125	27-176	
Vinyl chloride	20.0	22.7	113	65-124	
Xylenes, Total	40.0	43.1	108	80-120	
m-Xylene & p-Xylene	20.0	21.2	106	80-120	
o-Xylene	20.0	21.9	109	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964556.D

Lab ID: 240-82281-E-8 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Benzene	20.0	0.28 U	20.0	100	69-127	
Ethylbenzene	20.0	0.26 U	20.1	101	72-121	
Toluene	20.0	0.23 U	19.4	97	69-125	
Xylenes, Total	40.0	0.24 U	39.9	100	71-122	
m-Xylene & p-Xylene	20.0	0.24 U	19.7	98	70-121	
o-Xylene	20.0	0.28 U	20.2	101	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX964557.D

Lab ID: 240-82281-H-8 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	20.0	19.6	98	2	10	69-127	
Ethylbenzene	20.0	18.8	94	7	15	72-121	
Toluene	20.0	18.7	94	3	14	69-125	
Xylenes, Total	40.0	38.3	96	4	14	71-122	
m-Xylene & p-Xylene	20.0	19.1	96	3	15	70-121	
o-Xylene	20.0	19.2	96	5	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab File ID: UX964532.D Lab Sample ID: MB 240-288056/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 07/20/2017 16:27

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-288056/4	UX964529.D	07/20/2017 15:15
EW-2-START-071217	240-82290-1	UX964553.D	07/21/2017 00:43
	240-82281-E-8 MS	UX964556.D	07/21/2017 01:56
	240-82281-H-8 MSD	UX964557.D	07/21/2017 02:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab File ID: BFB3716.D BFB Injection Date: 07/10/2017

Instrument ID: A3UX9 BFB Injection Time: 19:06

Analysis Batch No.: 286596

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	37.8	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	77.9	
175	5.0 - 9.0 % of mass 174	5.6	(7.2) 1
176	95.0 - 101.0 % of mass 174	74.8	(95.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-286596/8	UX964311.D	07/10/2017	19:33
	STD8260 240-286596/9	UX964312.D	07/10/2017	19:57
	STD8260 240-286596/10	UX964313.D	07/10/2017	20:21
	ICIS 240-286596/11	UX964314.D	07/10/2017	20:45
	STD8260 240-286596/12	UX964315.D	07/10/2017	21:09
	STD8260 240-286596/13	UX964316.D	07/10/2017	21:33
	ICV 240-286596/14	UX964317.D	07/10/2017	21:57
	ICV 240-286596/21	UX964324.D	07/11/2017	00:44

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab File ID: BFB3729.D BFB Injection Date: 07/20/2017

Instrument ID: A3UX9 BFB Injection Time: 14:21

Analysis Batch No.: 288056

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	38.1	
75	30.0 - 60.0 % of mass 95	46.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	92.3	
175	5.0 - 9.0 % of mass 174	6.5	(7.0) 1
176	95.0 - 101.0 % of mass 174	88.0	(95.3) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-288056/3	UX964528.D	07/20/2017	14:51
	LCS 240-288056/4	UX964529.D	07/20/2017	15:15
	CCV 240-288056/6	UX964530.D	07/20/2017	15:39
	MB 240-288056/8	UX964532.D	07/20/2017	16:27
EW-2-START-071217	240-82290-1	UX964553.D	07/21/2017	00:43
	240-82281-E-8 MS	UX964556.D	07/21/2017	01:56
	240-82281-H-8 MSD	UX964557.D	07/21/2017	02:20

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Sample No.: ICIS 240-286596/11 Date Analyzed: 07/10/2017 20:45

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX964314.D Heated Purge: (Y/N) N

Calibration ID: 40616

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1047734	5.73	872831	8.41	471730	10.65
UPPER LIMIT		2095468	6.23	1745662	8.91	943460	11.15
LOWER LIMIT		523867	5.23	436416	7.91	235865	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-286596/14		1032035	5.72	863506	8.41	480789	10.66
ICV 240-286596/21		1040962	5.73	843644	8.41	465764	10.65
CCVIS 240-288056/3		982359	5.73	876762	8.41	534262	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Sample No.: CCVIS 240-288056/3 Date Analyzed: 07/20/2017 14:51

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX964528.D Heated Purge: (Y/N) N

Calibration ID: 40654

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		982359	5.73	876762	8.41	534262	10.65
UPPER LIMIT		1964718	6.23	1753524	8.91	1068524	11.15
LOWER LIMIT		491180	5.23	438381	7.91	267131	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-288056/4		970455	5.72	870496	8.41	536218	10.66
CCV 240-288056/6		1000467	5.73	873831	8.41	501043	10.65
MB 240-288056/8		933832	5.72	820736	8.41	458195	10.65
240-82290-1	EW-2-START-071217	873424	5.73	764903	8.41	414247	10.65
240-82281-E-8 MS		895256	5.73	778088	8.41	468196	10.65
240-82281-H-8 MSD		905276	5.72	796485	8.41	459403	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: EW-2-START-071217 | Lab Sample ID: 240-82290-1

Matrix: Water | Lab File ID: UX964553.D

Analysis Method: 8260C | Date Collected: 07/12/2017 16:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/21/2017 00:43

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23	U	100	23
79-34-5	1,1,2,2-Tetrachloroethane	32	U	100	32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	41	U	100	41
79-00-5	1,1,2-Trichloroethane	34	U	100	34
75-34-3	1,1-Dichloroethane	25	U	100	25
75-35-4	1,1-Dichloroethene	27	U	100	27
120-82-1	1,2,4-Trichlorobenzene	27	U	100	27
96-12-8	1,2-Dibromo-3-Chloropropane	47	U	200	47
106-93-4	Ethylene Dibromide	23	U	100	23
95-50-1	1,2-Dichlorobenzene	26	U	100	26
107-06-2	1,2-Dichloroethane	30	U	100	30
78-87-5	1,2-Dichloropropane	30	U	100	30
541-73-1	1,3-Dichlorobenzene	32	U	100	32
106-46-7	1,4-Dichlorobenzene	23	U	100	23
78-93-3	2-Butanone (MEK)	100	U	1000	100
591-78-6	2-Hexanone	120	U	1000	120
108-10-1	4-Methyl-2-pentanone (MIBK)	71	U	1000	71
67-64-1	Acetone	180	U	1000	180
71-43-2	Benzene	28	U	100	28
75-27-4	Dichlorobromomethane	30	U	100	30
75-25-2	Bromoform	43	U	100	43
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	34	U	100	34
56-23-5	Carbon tetrachloride	35	U	100	35
108-90-7	Chlorobenzene	32	U	100	32
75-00-3	Chloroethane	41	U	100	41
67-66-3	Chloroform	31	U	100	31
74-87-3	Chloromethane	43	U	100	43
156-59-2	cis-1,2-Dichloroethene	30	U	100	30
10061-01-5	cis-1,3-Dichloropropene	26	U	100	26
110-82-7	Cyclohexane	44	U	100	44
124-48-1	Chlorodibromomethane	25	U	100	25
75-71-8	Dichlorodifluoromethane	50	U	100	50
100-41-4	Ethylbenzene	26	U	100	26
98-82-8	Isopropylbenzene	21	U	100	21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: EW-2-START-071217 | Lab Sample ID: 240-82290-1

Matrix: Water | Lab File ID: UX964553.D

Analysis Method: 8260C | Date Collected: 07/12/2017 16:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/21/2017 00:43

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	140	U	1000	140
1634-04-4	Methyl tert-butyl ether	27	U	100	27
108-87-2	Methylcyclohexane	45	U	100	45
75-09-2	Methylene Chloride	67	J B	100	53
100-42-5	Styrene	23	U	100	23
127-18-4	Tetrachloroethene	30	U	100	30
108-88-3	Toluene	23	U	100	23
156-60-5	trans-1,2-Dichloroethene	29	U	100	29
10061-02-6	trans-1,3-Dichloropropene	31	U	100	31
79-01-6	Trichloroethene	3200		100	33
75-69-4	Trichlorofluoromethane	50	U	100	50
75-01-4	Vinyl chloride	45	U	100	45
1330-20-7	Xylenes, Total	24	U	200	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-286596/8	UX964311.D
Level 2	STD8260 240-286596/9	UX964312.D
Level 3	STD8260 240-286596/10	UX964313.D
Level 4	ICIS 240-286596/11	UX964314.D
Level 5	STD8260 240-286596/12	UX964315.D
Level 6	STD8260 240-286596/13	UX964316.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2619	0.2406	0.2730	0.2436	0.2596	Ave		0.2557			0.1000	5.3		20.0			
Chloromethane	0.6385 0.4893	0.4946	0.4707	0.4517	0.4487	Ave		0.4989			0.1000	14.2		20.0			
Vinyl chloride	0.3834 0.3287	0.3004	0.3306	0.3164	0.3081	Ave		0.3279			0.1000	9.0		20.0			
Butadiene	0.4541 0.4225	0.4719	0.4594	0.4210	0.4229	Ave		0.4420				5.1		20.0			
Bromomethane	0.1563 0.1248	0.1364	0.1204	0.1145	0.1102	Ave		0.1271			0.0500	13.3		20.0			
Chloroethane	0.2064 0.1734	0.2018	0.1870	0.1605	0.1737	Ave		0.1838			0.0500	9.7		20.0			
Dichlorofluoromethane	0.3915 0.3422	0.3881	0.3767	0.3525	0.3354	Ave		0.3644				6.6		20.0			
Trichlorofluoromethane	+++++ 0.2491	0.2097	0.2875	0.2611	0.2601	Ave		0.2535			0.1000	11.1		20.0			
Ethyl ether	0.2587 0.2305	0.2307	0.2502	0.2357	0.2227	Ave		0.2381				5.7		20.0			
Acrolein	+++++ 0.0305	0.0273	0.0342	0.0333	0.0312	Ave		0.0313				8.6		20.0			
1,1-Dichloroethene	0.4709 0.4511	0.4849	0.4778	0.4354	0.4475	Ave		0.4613			0.1000	4.2		20.0			
Acetone	+++++ 0.1286	0.2562	0.1378	0.1334	0.1252	Lin1	0.2626	0.1250			0.0100				1.0000		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1747 0.1564	0.1875	0.1776	0.1662	0.1722	Ave		0.1724			0.0500	6.1		20.0			
Iodomethane	0.3031 0.3082	0.2900	0.3049	0.2995	0.2982	Ave		0.3006				2.1		20.0			
Carbon disulfide	+++++ 0.4016	0.4802	0.4021	0.4142	0.3877	Ave		0.4172			0.1000	8.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3587	0.6317	0.4144	0.4386	0.4011	Lin1	0.2934	0.3790							0.9940		0.9900
Methyl acetate	0.4233 0.3121	0.3546	0.3181	0.3090	0.3100	Ave		0.3378			0.1000	13.4		20.0			
Methylene Chloride	+++++ 0.6859	0.9099	0.6558	0.6045	0.6491	Ave		0.7011			0.1000	17.2		20.0			
2-Methyl-2-propanol	0.0486 0.0450	0.0370	0.0434	0.0410	0.0429	Ave		0.0430				9.1		20.0			
Acrylonitrile	0.1672 0.1939	0.1746	0.1899	0.1827	0.1948	Ave		0.1839				6.1		20.0			
trans-1,2-Dichloroethene	0.5836 0.5318	0.5068	0.5091	0.4920	0.5071	Ave		0.5217			0.1000	6.3		20.0			
Methyl tert-butyl ether	0.7245 0.7910	0.6906	0.7828	0.7553	0.7357	Ave		0.7467			0.1000	5.0		20.0			
Hexane	0.6141 0.4686	0.5081	0.4805	0.4753	0.5136	Ave		0.5100				10.6		20.0			
1,1-Dichloroethane	0.5426 0.5896	0.5388	0.5515	0.5486	0.5536	Ave		0.5541			0.2000	3.3		20.0			
Vinyl acetate	0.8472 1.0745	0.8268	0.8940	0.8941	0.9823	Ave		0.9198				10.1		20.0			
2-Butanone (MEK)	0.2747 0.2493	0.2785	0.2330	0.2364	0.2431	Ave		0.2525			0.0100	7.7		20.0			
cis-1,2-Dichloroethene	0.5476 0.5761	0.5453	0.5436	0.5503	0.5419	Ave		0.5508			0.1000	2.3		20.0			
2,2-Dichloropropane	+++++ 0.1831	0.1825	0.1941	0.1907	0.1859	Ave		0.1873				2.7		20.0			
Chlorobromomethane	0.5176 0.4484	0.4225	0.3953	0.4078	0.4052	Ave		0.4328				10.5		20.0			
Tetrahydrofuran	+++++ 0.1687	0.1698	0.1514	0.1547	0.1599	Ave		0.1609				5.1		20.0			
Chloroform	0.4981 0.4351	0.3948	0.4373	0.4173	0.4102	Ave		0.4321			0.2000	8.3		20.0			
1,1,1-Trichloroethane	0.3266 0.3789	0.3165	0.3601	0.3588	0.3642	Ave		0.3509			0.1000	6.8		20.0			
Cyclohexane	0.4337 0.3818	0.4191	0.4090	0.3839	0.3846	Ave		0.4020			0.1000	5.4		20.0			
1,1-Dichloropropene	0.3716 0.3215	0.3027	0.3364	0.3165	0.3161	Ave		0.3275				7.4		20.0			
Carbon tetrachloride	0.2830 0.3270	0.2983	0.3102	0.3064	0.3156	Ave		0.3068			0.1000	4.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0170 0.0184	0.0196	0.0156	0.0164	0.0174	Ave		0.0174				8.1		20.0			
1,2-Dichloroethane	0.5463 0.5383	0.5119	0.5192	0.5153	0.5181	Ave		0.5249			0.1000	2.7		20.0			
Benzene	1.0086 0.9564	0.9493	0.9875	0.9594	0.9220	Ave		0.9639			0.5000	3.1		20.0			
n-Heptane	+++++ 0.1494	0.3113	0.1758	0.1754	0.1735	Lin1	0.1653	0.1577							0.9950		0.9900
Trichloroethene	0.4293 0.2873	0.2660	0.2787	0.2834	0.2741	Lin1	0.0426	0.2805			0.1500				0.9990		0.9900
Methylcyclohexane	0.3465 0.3429	0.4004	0.3728	0.3654	0.3627	Ave		0.3651			0.1000	5.7		20.0			
1,2-Dichloropropane	0.4214 0.3309	0.3410	0.3361	0.3256	0.3186	Ave		0.3456			0.1000	11.0		20.0			
Dibromomethane	0.2063 0.1917	0.1789	0.1763	0.1870	0.1805	Ave		0.1868				5.9		20.0			
1,4-Dioxane	0.0025 0.0030	0.0029	0.0026	0.0032	0.0029	Ave		0.0028				9.2		20.0			
Dichlorobromomethane	0.3088 0.3504	0.3502	0.3323	0.3292	0.3277	Ave		0.3331			0.1500	4.7		20.0			
2-Chloroethyl vinyl ether	0.2779 0.2529	0.2387	0.2420	0.2448	0.2481	Ave		0.2507				5.7		20.0			
cis-1,3-Dichloropropene	0.3835 0.4036	0.3254	0.3766	0.3818	0.3807	Ave		0.3752			0.1500	7.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.6352 0.5539	0.5226	0.5039	0.4983	0.5305	Ave		0.5407			0.0500	9.3		20.0			
Toluene	1.3941 1.2347	1.2107	1.2784	1.2601	1.1983	Ave		1.2627			0.4000	5.6		20.0			
trans-1,3-Dichloropropene	0.5273 0.4629	0.3965	0.4358	0.4385	0.4402	Ave		0.4502			0.1000	9.6		20.0			
Ethyl methacrylate	0.4362 0.4463	0.4307	0.4385	0.4299	0.4343	Ave		0.4360				1.4		20.0			
1,1,2-Trichloroethane	0.3529 0.2902	0.2757	0.2863	0.2904	0.2793	Ave		0.2958			0.1000	9.7		20.0			
1,3-Dichloropropane	0.5430 0.4844	0.5026	0.5160	0.4905	0.4707	Ave		0.5012				5.1		20.0			
Tetrachloroethene	0.4849 0.3383	0.3429	0.3474	0.3342	0.3250	Ave		0.3621			0.1500	16.8		20.0			
2-Hexanone	0.4666 0.4733	0.4423	0.4431	0.4306	0.4612	Ave		0.4528			0.0500	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3116 0.3376	0.3048	0.3196	0.3110	0.3189	Ave		0.3173				3.6		20.0			
Ethylene Dibromide	0.4212 0.3348	0.2769	0.3281	0.3283	0.3207	Ave		0.3350				14.1		20.0			
Chlorobenzene	1.2128 0.9058	0.9982	0.9495	0.9124	0.8680	Ave		0.9744			0.3000	12.8		20.0			
1,1,1,2-Tetrachloroethane	0.3697 0.3406	0.3279	0.3287	0.3225	0.3275	Ave		0.3361				5.2		20.0			
Ethylbenzene	0.4071 0.4703	0.4658	0.4956	0.4779	0.4467	Ave		0.4606				6.7		20.0			
m-Xylene & p-Xylene	0.6248 0.5786	0.5331	0.6065	0.5854	0.5613	Ave		0.5816				5.6		20.0			
o-Xylene	0.5215 0.5514	0.5479	0.6008	0.5752	0.5364	Ave		0.5555				5.1		20.0			
Styrene	0.8356 0.9588	0.8899	0.9726	0.9826	0.9345	Ave		0.9290			0.3000	6.1		20.0			
Bromoform	0.1737 0.2450	0.2097	0.2084	0.2129	0.2259	Ave		0.2126			0.1000	11.1		20.0			
Isopropylbenzene	1.3670 1.3259	1.2086	1.4063	1.3520	1.3092	Ave		1.3282			0.1000	5.1		20.0			
1,1,2,2-Tetrachloroethane	0.8848 0.7120	0.7726	0.7934	0.7661	0.7465	Ave		0.7792			0.3000	7.5		20.0			
Bromobenzene	0.6516 0.6814	0.7851	0.7378	0.7109	0.6860	Ave		0.7088				6.7		20.0			
1,2,3-Trichloropropane	0.3013 0.2607	0.3236	0.2974	0.2917	0.2651	Ave		0.2900				8.2		20.0			
trans-1,4-Dichloro-2-butene	0.4710 0.4813	0.4577	0.4606	0.4661	0.4712	Ave		0.4680				1.8		20.0			
N-Propylbenzene	0.7464 0.7157	0.7157	0.7774	0.7942	0.7282	Ave		0.7463				4.4		20.0			
2-Chlorotoluene	0.7375 0.6322	0.6063	0.6842	0.6998	0.6409	Ave		0.6668				7.3		20.0			
1,3,5-Trimethylbenzene	2.1529 1.9082	2.0083	2.0886	2.1154	1.9430	Ave		2.0361				4.8		20.0			
4-Chlorotoluene	0.7835 0.6774	0.6978	0.7340	0.7487	0.6755	Ave		0.7195				6.0		20.0			
tert-Butylbenzene	1.8657 1.8680	1.8642	2.2089	2.0171	2.0640	Ave		1.9813				7.1		20.0			
1,2,4-Trimethylbenzene	2.1550 2.0251	2.0899	2.2066	2.2273	2.0544	Ave		2.1264				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.6022 0.5711	0.5328	0.5844	0.6212	0.5642	Ave		0.5793				5.3		20.0			
1,3-Dichlorobenzene	1.4630 1.2896	1.3692	1.3953	1.3738	1.3030	Ave		1.3657			0.6000	4.6		20.0			
4-Isopropyltoluene	2.0812 2.0849	2.1092	2.3074	2.2859	2.1281	Ave		2.1661				4.7		20.0			
1,4-Dichlorobenzene	1.5641 1.3503	1.4631	1.4348	1.4462	1.3451	Ave		1.4339			0.5000	5.6		20.0			
n-Butylbenzene	1.6031 1.5763	1.6213	1.6986	1.7081	1.6152	Ave		1.6371				3.3		20.0			
1,2-Dichlorobenzene	1.6542 1.2772	1.2637	1.4019	1.3575	1.2884	Ave		1.3738			0.4000	10.7		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1760	0.1568	0.1714	0.1754	0.1783	Ave		0.1716			0.0500	5.0		20.0			
1,2,4-Trichlorobenzene	0.9890 0.7605	0.7919	0.7107	0.7720	0.7278	Ave		0.7920			0.2000	12.7		20.0			
Hexachlorobutadiene	+++++ 0.2970	0.3137	0.2911	0.2966	0.2956	Ave		0.2988				2.9		20.0			
Naphthalene	2.4257 2.3982	2.4444	2.2887	2.5560	2.4291	Ave		2.4237				3.5		20.0			
1,2,3-Trichlorobenzene	0.8588 0.7109	0.6338	0.6429	0.7335	0.6870	Ave		0.7111				11.5		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2409	0.2296	0.2382	0.2270	0.2216	Ave		0.2315				3.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3770	0.3849	0.3693	0.3439	0.3456	Ave		0.3642				5.1		20.0			
Toluene-d8 (Surr)	+++++ 1.0809	1.1290	1.1662	1.0866	1.0298	Ave		1.0985				4.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4591	0.5489	0.4874	0.4645	0.4372	Ave		0.4794				8.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-286596/8	UX964311.D
Level 2	STD8260 240-286596/9	UX964312.D
Level 3	STD8260 240-286596/10	UX964313.D
Level 4	ICIS 240-286596/11	UX964314.D
Level 5	STD8260 240-286596/12	UX964315.D
Level 6	STD8260 240-286596/13	UX964316.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 808257	12472	140101	255224	537404	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	16214 1509927	25643	241556	473233	928869	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	9735 1014296	15575	169652	331515	637709	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	11531 1303739	24465	235750	441112	875331	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	3968 385098	7074	61807	119994	228054	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	5241 535124	10462	95951	168181	359537	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9942 1056068	20122	193287	369334	694339	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	+++++ 768640	10872	147511	273613	538341	+++++ 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6570 711442	11961	128406	246924	461056	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	+++++ 471125	7077	87851	174274	322469	+++++ 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	11956 1392024	25140	245173	456159	926347	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 793413	26570	141433	279552	518457	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	4435 482707	9719	91112	174151	356367	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	7696 951217	15036	156439	313744	617165	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 1239406	24895	206352	433940	802561	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Lin1	+++++ 1106877	32753	212669	459546	830192	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	21497 1925983	36770	326426	647477	1283141	1.00 120	2.00	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 2116768	47177	336510	633397	1343588	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	12353 1389337	19174	222525	430058	887440	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	42463 5983387	90520	974555	1914226	4031827	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	14820 1640978	26274	261241	515456	1049737	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	18397 2440816	35805	401680	791403	1522861	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	15594 1446072	26344	246541	498028	1063048	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13777 1819379	27935	282983	574775	1146003	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	21512 3315669	42868	458767	936827	2033252	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	13951 1538829	28880	239137	495469	1006444	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	13905 1777650	28271	278943	576538	1121650	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	+++++ 565034	9461	99605	199807	384867	+++++ 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	13142 1383801	21906	202866	427215	838807	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 1041393	17609	155426	324111	662119	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	12647 1342592	20467	224395	437191	849082	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8293 1169259	16409	184769	375974	753891	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11012 1178063	21730	209890	402180	796175	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	9436 992095	15692	172610	331584	654381	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7187 1009036	15465	159151	321035	653339	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	10797 1420948	25374	200386	430416	898344	12.5 1500	25.0	250	500	1000
1,2-Dichloroethane	FB	Ave	13872 1661126	26543	266425	539869	1072383	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	25610 2951422	49219	506738	1005231	1908527	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 461126	16138	90235	183763	359055	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Lin1	10902 886510	13793	142992	296978	567389	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8798 1058183	20758	191318	382828	750685	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	10700 1021230	17681	172487	341134	659571	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	5238 591463	9273	90456	195926	373580	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	1283 182372	2976	26576	68061	118543	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7842 1081167	18155	170538	344947	678387	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	14113 1560694	24747	248394	512981	1026916	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	9737 1245390	16871	193227	400039	787913	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	32260 3418492	54193	517141	1044080	2196288	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29383 3236959	52915	539928	1099891	2095803	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	11114 1213548	17329	184069	382769	769984	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	9194 1170033	18822	185199	375271	759667	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7439 760720	12049	120926	253458	488528	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	11445 1269944	21967	217922	428160	823180	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	10221 886938	14985	146701	291724	568375	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	19668 2481601	38664	374262	751654	1613416	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	6568 885170	13320	134998	271426	557838	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	8878 877823	12104	138569	286535	560911	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	25562 2374706	43625	401017	796403	1518065	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	7792 892866	14329	138840	281512	572753	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	8581 1232862	20356	209317	417126	781284	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13170 1517011	23297	256158	510946	981740	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10992 1445479	23947	253744	502029	938127	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17612 2513690	38891	410766	857615	1634456	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	3661 642260	9163	88024	185843	395062	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	28813 3476184	52820	593909	1180073	2289798	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9976 1086915	17762	183242	361393	725221	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7347 1040197	18050	170402	335339	666438	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3397 397926	7439	68692	137612	257546	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	5310 734800	10522	106377	219855	457796	0.500 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8415 1092623	16453	179532	374633	707509	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8315 965099	13938	158020	330097	622615	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24273 2912972	46170	482370	997890	1887749	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8834 1034122	16042	169513	353205	656274	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21035 2851583	42858	510157	951528	2005249	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	24297 3091462	48046	509624	1050699	1995924	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	6790 871807	12250	134969	293030	548121	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16495 1968577	31477	322247	648060	1265957	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	23464 3182726	48490	532898	1078347	2067510	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	17634 2061373	33636	331368	682234	1306839	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82290-1 Analy Batch No.: 286596

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 19:33 Calibration End Date: 07/10/2017 21:33 Calibration ID: 40616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	18074 2406335	37272	392284	805741	1569204	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	18650 1949784	29052	323775	640372	1251743	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 268647	3605	39585	82740	173204	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	11151 1160988	18206	164148	364175	707061	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 453313	7211	67236	139918	287201	+++++ 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27348 3660996	56195	528575	1205725	2359984	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9683 1085160	14570	148474	346017	667466	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 743371	11905	122214	237841	458735	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1163532	19958	189491	360351	715422	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2833731	49344	492526	948447	1801090	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1203507	23988	205835	405432	764602	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2557	0.3268	0.1000	0.0256	0.0200	27.8*	20.0
Chloromethane	Ave	0.4989	0.5641	0.1000	0.0226	0.0200	13.1	20.0
Vinyl chloride	Ave	0.3279	0.3647	0.1000	0.0222	0.0200	11.2	20.0
Butadiene	Ave	0.4420	0.4432		0.0201	0.0200	0.3	30.0
Bromomethane	Ave	0.1271	0.1154	0.0500	0.0182	0.0200	-9.2	20.0
Chloroethane	Ave	0.1838	0.1832	0.0500	0.0199	0.0200	-0.3	20.0
Dichlorofluoromethane	Ave	0.3644	0.3865		0.0212	0.0200	6.1	20.0
Trichlorofluoromethane	Ave	0.2535	0.2910	0.1000	0.0230	0.0200	14.8	20.0
Ethyl ether	Ave	0.2381	0.2694		0.0226	0.0200	13.2	20.0
Acrolein	Ave	0.0313	0.0374		0.120	0.100	19.5	50.0
1,1-Dichloroethene	Ave	0.4613	0.5128	0.1000	0.0222	0.0200	11.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1724	0.1720	0.0500	0.0199	0.0200	-0.3	20.0
Acetone	Lin1		0.1422	0.0100	0.0434	0.0400	8.5	50.0
Iodomethane	Ave	0.3006	0.3327		0.0221	0.0200	10.7	20.0
Carbon disulfide	Ave	0.4172	0.4390	0.1000	0.0210	0.0200	5.2	20.0
3-Chloro-1-propene	Lin1		0.4549		0.0232	0.0200	16.2	20.0
Methyl acetate	Ave	0.3378	0.3343	0.1000	0.0396	0.0400	-1.0	20.0
Methylene Chloride	Ave	0.7011	0.7150	0.1000	0.0204	0.0200	2.0	50.0
2-Methyl-2-propanol	Ave	0.0430	0.0493		0.229	0.200	14.7	50.0
Acrylonitrile	Ave	0.1839	0.2056		0.224	0.200	11.8	20.0
Methyl tert-butyl ether	Ave	0.7467	0.8201	0.1000	0.0220	0.0200	9.8	20.0
trans-1,2-Dichloroethene	Ave	0.5217	0.5685	0.1000	0.0218	0.0200	9.0	20.0
Hexane	Ave	0.5100	0.4809		0.0189	0.0200	-5.7	20.0
1,1-Dichloroethane	Ave	0.5541	0.6070	0.2000	0.0219	0.0200	9.5	20.0
Vinyl acetate	Ave	0.9198	1.071		0.0233	0.0200	16.4	50.0
2,2-Dichloropropane	Ave	0.1873	0.2043		0.0218	0.0200	9.1	20.0
2-Butanone (MEK)	Ave	0.2525	0.2600	0.0100	0.0412	0.0400	3.0	20.0
cis-1,2-Dichloroethene	Ave	0.5508	0.6121	0.1000	0.0222	0.0200	11.1	20.0
Chlorobromomethane	Ave	0.4328	0.4703		0.0217	0.0200	8.7	20.0
Tetrahydrofuran	Ave	0.1609	0.1706		0.0424	0.0400	6.0	20.0
Chloroform	Ave	0.4321	0.4557	0.2000	0.0211	0.0200	5.5	20.0
1,1,1-Trichloroethane	Ave	0.3509	0.3995	0.1000	0.0228	0.0200	13.9	20.0
Cyclohexane	Ave	0.4020	0.4086	0.1000	0.0203	0.0200	1.6	20.0
1,1-Dichloropropene	Ave	0.3275	0.3388		0.0207	0.0200	3.5	20.0
Carbon tetrachloride	Ave	0.3068	0.3390	0.1000	0.0221	0.0200	10.5	20.0
Isobutyl alcohol	Ave	0.0174	0.0182		0.523	0.500	4.6	20.0
1,2-Dichloroethane	Ave	0.5249	0.5613	0.1000	0.0214	0.0200	6.9	20.0
Benzene	Ave	0.9639	1.014	0.5000	0.0210	0.0200	5.2	20.0
n-Heptane	Lin1		0.1685		0.0203	0.0200	1.6	20.0
Trichloroethene	Lin1		0.2995	0.1500	0.0212	0.0200	6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3651	0.3605	0.1000	0.0197	0.0200	-1.3	20.0
1,2-Dichloropropane	Ave	0.3456	0.3594	0.1000	0.0208	0.0200	4.0	20.0
1,4-Dioxane	Ave	0.0028	0.0041		0.579	0.400	44.8	50.0
Dibromomethane	Ave	0.1868	0.1980		0.0212	0.0200	6.0	20.0
Dichlorobromomethane	Ave	0.3331	0.3532	0.1500	0.0212	0.0200	6.0	20.0
2-Chloroethyl vinyl ether	Ave	0.2507	0.2732		0.0218	0.0200	8.9	20.0
cis-1,3-Dichloropropene	Ave	0.3752	0.4218	0.1500	0.0225	0.0200	12.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5407	0.5651	0.0500	0.0418	0.0400	4.5	20.0
Toluene	Ave	1.263	1.357	0.4000	0.0215	0.0200	7.5	20.0
trans-1,3-Dichloropropene	Ave	0.4502	0.4758	0.1000	0.0211	0.0200	5.7	20.0
Ethyl methacrylate	Ave	0.4360	0.4717		0.0216	0.0200	8.2	20.0
1,1,2-Trichloroethane	Ave	0.2958	0.3152	0.1000	0.0213	0.0200	6.6	20.0
1,3-Dichloropropane	Ave	0.5012	0.5140		0.0205	0.0200	2.6	20.0
Tetrachloroethene	Ave	0.3621	0.3734	0.1500	0.0206	0.0200	3.1	20.0
2-Hexanone	Ave	0.4528	0.4983	0.0500	0.0440	0.0400	10.0	20.0
Chlorodibromomethane	Ave	0.3173	0.3507		0.0221	0.0200	10.5	20.0
Ethylene Dibromide	Ave	0.3350	0.3376		0.0202	0.0200	0.8	20.0
Chlorobenzene	Ave	0.9744	0.9901	0.3000	0.0203	0.0200	1.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3361	0.3566		0.0212	0.0200	6.1	20.0
Ethylbenzene	Ave	0.4606	0.5031		0.0218	0.0200	9.2	20.0
m-Xylene & p-Xylene	Ave	0.5816	0.6357		0.0219	0.0200	9.3	20.0
o-Xylene	Ave	0.5555	0.6261		0.0225	0.0200	12.7	20.0
Styrene	Ave	0.9290	1.030	0.3000	0.0222	0.0200	10.9	20.0
Bromoform	Ave	0.2126	0.2317	0.1000	0.0218	0.0200	9.0	20.0
Isopropylbenzene	Ave	1.328	1.470	0.1000	0.0221	0.0200	10.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7792	0.8117	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.7088	0.7832		0.0221	0.0200	10.5	20.0
1,2,3-Trichloropropane	Ave	0.2900	0.3076		0.0212	0.0200	6.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4680	0.5134		0.0219	0.0200	9.7	20.0
N-Propylbenzene	Ave	0.7463	0.8373		0.0224	0.0200	12.2	20.0
2-Chlorotoluene	Ave	0.6668	0.7208		0.0216	0.0200	8.1	20.0
1,3,5-Trimethylbenzene	Ave	2.036	2.239		0.0220	0.0200	10.0	20.0
4-Chlorotoluene	Ave	0.7195	0.7755		0.0216	0.0200	7.8	20.0
tert-Butylbenzene	Ave	1.981	2.323		0.0234	0.0200	17.2	20.0
1,2,4-Trimethylbenzene	Ave	2.126	2.299		0.0216	0.0200	8.1	20.0
sec-Butylbenzene	Ave	0.5793	0.6650		0.0230	0.0200	14.8	20.0
1,3-Dichlorobenzene	Ave	1.366	1.465	0.6000	0.0215	0.0200	7.3	20.0
4-Isopropyltoluene	Ave	2.166	2.483		0.0229	0.0200	14.6	20.0
1,4-Dichlorobenzene	Ave	1.434	1.543	0.5000	0.0215	0.0200	7.6	20.0
n-Butylbenzene	Ave	1.637	1.887		0.0231	0.0200	15.3	20.0
1,2-Dichlorobenzene	Ave	1.374	1.485	0.4000	0.0216	0.0200	8.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICV 240-286596/14 Calibration Date: 07/10/2017 21:57

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964317.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1716	0.1858	0.0500	0.0217	0.0200	8.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7920	0.8870	0.2000	0.0224	0.0200	12.0	50.0
Hexachlorobutadiene	Ave	0.2988	0.3567		0.0239	0.0200	19.4	20.0
Naphthalene	Ave	2.424	2.812		0.0232	0.0200	16.0	50.0
1,2,3-Trichlorobenzene	Ave	0.7111	0.8511		0.0239	0.0200	19.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2315	0.2453		0.0212	0.0200	6.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3642	0.3783		0.0208	0.0200	3.9	20.0
Toluene-d8 (Surr)	Ave	1.099	1.168		0.0213	0.0200	6.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4794	0.5273		0.0220	0.0200	10.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICV 240-286596/21 Calibration Date: 07/11/2017 00:44

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964324.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2315	0.2224		0.0192	0.0200	-3.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3642	0.3394		0.0186	0.0200	-6.8	20.0
Toluene-d8 (Surr)	Ave	1.099	1.143		0.0208	0.0200	4.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4794	0.4948		0.0206	0.0200	3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICV 240-286596/21 Calibration Date: 07/11/2017 00:44

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 22:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/11/2017 00:20

Lab File ID: UX964324.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0492		0.176	0.200	-11.9	20.0
Isopropyl ether	Ave	0.2277	0.2357		0.0207	0.0200	3.6	20.0
2-Chloro-1,3-butadiene	Ave	0.6612	0.6112		0.0185	0.0200	-7.6	20.0
Tert-butyl ethyl ether	Ave	1.262	1.240		0.0197	0.0200	-1.7	20.0
Ethyl acetate	Ave	0.4527	0.4293		0.0379	0.0400	-5.2	50.0
Propionitrile	Ave	0.0749	0.0716		0.191	0.200	-4.4	20.0
Methacrylonitrile	Ave	0.3057	0.2966		0.194	0.200	-3.0	20.0
Tert-amyl methyl ether	Ave	0.8216	0.8019		0.0195	0.0200	-2.4	20.0
n-Butanol	Ave	0.0168	0.0143		0.424	0.500	-15.1	20.0
Ethyl acrylate	Ave	0.6589	0.6375		0.0194	0.0200	-3.2	20.0
Methyl methacrylate	Ave	0.4507	0.4466		0.0396	0.0400	-0.9	20.0
2-Nitropropane	Ave	0.1253	0.1126		0.0360	0.0400	-10.1	20.0
n-Butyl acetate	Ave	0.9600	0.9382		0.0195	0.0200	-2.3	30.0
1-Chlorohexane	Ave	0.4038	0.4026		0.0199	0.0200	-0.3	20.0
Cyclohexanone	Lin1		0.0417		0.193	0.200	-3.3	20.0
Pentachloroethane	Ave	0.3540	0.3669		0.0415	0.0400	3.7	30.0
1,2,3-Trimethylbenzene	Ave	2.347	2.426		0.0207	0.0200	3.4	20.0
Benzyl chloride	Ave	0.3056	0.3014		0.0197	0.0200	-1.4	30.0
1,3,5-Trichlorobenzene	Ave	0.8461	0.8664		0.0205	0.0200	2.4	20.0
2-Methylnaphthalene	Ave	1.266	1.379		0.0436	0.0400	8.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: CCVIS 240-288056/3 Calibration Date: 07/20/2017 14:51

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964528.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2557	0.3333	0.1000	0.0261	0.0200	30.3*	20.0
Chloromethane	Ave	0.4989	0.5617	0.1000	0.0225	0.0200	12.6	20.0
Vinyl chloride	Ave	0.3279	0.3725	0.1000	0.0227	0.0200	13.6	20.0
Butadiene	Ave	0.4420	0.5194		0.0235	0.0200	17.5	20.0
Bromomethane	Ave	0.1271	0.1332	0.0500	0.0210	0.0200	4.8	20.0
Chloroethane	Ave	0.1838	0.2076	0.0500	0.0226	0.0200	13.0	20.0
Dichlorofluoromethane	Ave	0.3644	0.3962		0.0217	0.0200	8.7	20.0
Trichlorofluoromethane	Ave	0.2535	0.3110	0.1000	0.0245	0.0200	22.7*	20.0
Ethyl ether	Ave	0.2381	0.2745		0.0231	0.0200	15.3	20.0
Acrolein	Ave	0.0313	0.0326		0.104	0.100	4.2	50.0
1,1-Dichloroethene	Ave	0.4613	0.5095	0.1000	0.0221	0.0200	10.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1724	0.1940	0.0500	0.0225	0.0200	12.5	20.0
Acetone	Lin1		0.1288	0.0100	0.0391	0.0400	-2.2	50.0
Iodomethane	Ave	0.3006	0.3702		0.0246	0.0200	23.1*	20.0
Carbon disulfide	Ave	0.4172	0.4172	0.1000	0.0200	0.0200	0.0	20.0
3-Chloro-1-propene	Lin1		0.5982		0.0308	0.0200	54.0*	20.0
Methyl acetate	Ave	0.3378	0.3121	0.1000	0.0370	0.0400	-7.6	20.0
Methylene Chloride	Ave	0.7011	0.7293	0.1000	0.0208	0.0200	4.0	50.0
2-Methyl-2-propanol	Ave	0.0430	0.0452		0.210	0.200	5.2	50.0
Acrylonitrile	Ave	0.1839	0.2025		0.220	0.200	10.2	20.0
Methyl tert-butyl ether	Ave	0.7467	0.8103	0.1000	0.0217	0.0200	8.5	20.0
trans-1,2-Dichloroethene	Ave	0.5217	0.5721	0.1000	0.0219	0.0200	9.6	20.0
Hexane	Ave	0.5100	0.5339		0.0209	0.0200	4.7	20.0
1,1-Dichloroethane	Ave	0.5541	0.6279	0.2000	0.0227	0.0200	13.3	20.0
Vinyl acetate	Ave	0.9198	0.8322		0.0181	0.0200	-9.5	50.0
2,2-Dichloropropane	Ave	0.1873	0.2060		0.0220	0.0200	10.0	20.0
2-Butanone (MEK)	Ave	0.2525	0.2366	0.0100	0.0375	0.0400	-6.3	20.0
cis-1,2-Dichloroethene	Ave	0.5508	0.6470	0.1000	0.0235	0.0200	17.5	20.0
Chlorobromomethane	Ave	0.4328	0.4576		0.0211	0.0200	5.7	20.0
Tetrahydrofuran	Ave	0.1609	0.1551		0.0385	0.0400	-3.6	20.0
Chloroform	Ave	0.4321	0.4587	0.2000	0.0212	0.0200	6.1	20.0
1,1,1-Trichloroethane	Ave	0.3509	0.4016	0.1000	0.0229	0.0200	14.5	20.0
Cyclohexane	Ave	0.4020	0.4204	0.1000	0.0209	0.0200	4.6	20.0
1,1-Dichloropropene	Ave	0.3275	0.3453		0.0211	0.0200	5.5	20.0
Carbon tetrachloride	Ave	0.3068	0.3574	0.1000	0.0233	0.0200	16.5	20.0
Isobutyl alcohol	Ave	0.0174	0.0155		0.444	0.500	-11.1	20.0
1,2-Dichloroethane	Ave	0.5249	0.6041	0.1000	0.0230	0.0200	15.1	20.0
Benzene	Ave	0.9639	1.045	0.5000	0.0217	0.0200	8.4	20.0
n-Heptane	Lin1		0.1776		0.0215	0.0200	7.4	20.0
Trichloroethene	Lin1		0.3260	0.1500	0.0231	0.0200	15.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: CCVIS 240-288056/3 Calibration Date: 07/20/2017 14:51

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964528.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3651	0.3739	0.1000	0.0205	0.0200	2.4	20.0
1,2-Dichloropropane	Ave	0.3456	0.3684	0.1000	0.0213	0.0200	6.6	20.0
1,4-Dioxane	Ave	0.0028	0.0036		0.512	0.400	28.0	50.0
Dibromomethane	Ave	0.1868	0.2193		0.0235	0.0200	17.4	20.0
Dichlorobromomethane	Ave	0.3331	0.3462	0.1500	0.0208	0.0200	3.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2507	0.2644		0.0422	0.0400	5.4	20.0
cis-1,3-Dichloropropene	Ave	0.3752	0.4047	0.1500	0.0216	0.0200	7.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5407	0.4920	0.0500	0.0364	0.0400	-9.0	20.0
Toluene	Ave	1.263	1.305	0.4000	0.0207	0.0200	3.4	20.0
trans-1,3-Dichloropropene	Ave	0.4502	0.4321	0.1000	0.0192	0.0200	-4.0	20.0
Ethyl methacrylate	Ave	0.4360	0.3992		0.0183	0.0200	-8.4	20.0
1,1,2-Trichloroethane	Ave	0.2958	0.2842	0.1000	0.0192	0.0200	-3.9	20.0
1,3-Dichloropropane	Ave	0.5012	0.4967		0.0198	0.0200	-0.9	20.0
Tetrachloroethene	Ave	0.3621	0.3903	0.1500	0.0216	0.0200	7.8	20.0
2-Hexanone	Ave	0.4528	0.3940	0.0500	0.0348	0.0400	-13.0	20.0
Chlorodibromomethane	Ave	0.3173	0.3140		0.0198	0.0200	-1.0	20.0
Ethylene Dibromide	Ave	0.3350	0.3233		0.0193	0.0200	-3.5	20.0
Chlorobenzene	Ave	0.9744	0.9852	0.3000	0.0202	0.0200	1.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3361	0.3513		0.0209	0.0200	4.5	20.0
Ethylbenzene	Ave	0.4606	0.5071		0.0220	0.0200	10.1	20.0
m-Xylene & p-Xylene	Ave	0.5816	0.6251		0.0215	0.0200	7.5	20.0
o-Xylene	Ave	0.5555	0.6083		0.0219	0.0200	9.5	20.0
Styrene	Ave	0.9290	1.027	0.3000	0.0221	0.0200	10.5	20.0
Bromoform	Ave	0.2126	0.2052	0.1000	0.0193	0.0200	-3.5	20.0
Isopropylbenzene	Ave	1.328	1.449	0.1000	0.0218	0.0200	9.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7792	0.6382	0.3000	0.0164	0.0200	-18.1	20.0
Bromobenzene	Ave	0.7088	0.7655		0.0216	0.0200	8.0	20.0
1,2,3-Trichloropropane	Ave	0.2900	0.2680		0.0185	0.0200	-7.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4680	0.4059		0.0173	0.0200	-13.3	20.0
N-Propylbenzene	Ave	0.7463	0.7519		0.0202	0.0200	0.8	20.0
2-Chlorotoluene	Ave	0.6668	0.6966		0.0209	0.0200	4.5	20.0
1,3,5-Trimethylbenzene	Ave	2.036	2.020		0.0198	0.0200	-0.8	20.0
4-Chlorotoluene	Ave	0.7195	0.6960		0.0193	0.0200	-3.3	20.0
tert-Butylbenzene	Ave	1.981	2.171		0.0219	0.0200	9.6	20.0
1,2,4-Trimethylbenzene	Ave	2.126	2.126		0.0200	0.0200	0.0	20.0
sec-Butylbenzene	Ave	0.5793	0.6135		0.0212	0.0200	5.9	20.0
1,3-Dichlorobenzene	Ave	1.366	1.416	0.6000	0.0207	0.0200	3.7	20.0
4-Isopropyltoluene	Ave	2.166	2.303		0.0213	0.0200	6.3	20.0
1,4-Dichlorobenzene	Ave	1.434	1.471	0.5000	0.0205	0.0200	2.6	20.0
n-Butylbenzene	Ave	1.637	1.619		0.0198	0.0200	-1.1	20.0
1,2-Dichlorobenzene	Ave	1.374	1.402	0.4000	0.0204	0.0200	2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: CCVIS 240-288056/3 Calibration Date: 07/20/2017 14:51

Instrument ID: A3UX9 Calib Start Date: 07/10/2017 19:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/10/2017 21:33

Lab File ID: UX964528.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1716	0.1406	0.0500	0.0164	0.0200	-18.0	50.0
1,2,4-Trichlorobenzene	Ave	0.7920	0.7744	0.2000	0.0196	0.0200	-2.2	50.0
Hexachlorobutadiene	Ave	0.2988	0.3451		0.0231	0.0200	15.5	20.0
Naphthalene	Ave	2.424	2.088		0.0172	0.0200	-13.8	50.0
1,2,3-Trichlorobenzene	Ave	0.7111	0.6784		0.0191	0.0200	-4.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2315	0.2455		0.0212	0.0200	6.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3642	0.3757		0.0206	0.0200	3.2	20.0
Toluene-d8 (Surr)	Ave	1.099	1.123		0.0205	0.0200	2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4794	0.5228		0.0218	0.0200	9.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-288056/8

Matrix: Water | Lab File ID: UX964532.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/20/2017 16:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-288056/8

Matrix: Water | Lab File ID: UX964532.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/20/2017 16:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.852	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	105		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-288056/4

Matrix: Water | Lab File ID: UX964529.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/20/2017 15:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.4		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	16.2		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	22.0		1.0	0.41
79-00-5	1,1,2-Trichloroethane	20.0		1.0	0.34
75-34-3	1,1-Dichloroethane	23.1		1.0	0.25
75-35-4	1,1-Dichloroethene	22.3		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	19.8		1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	15.5		2.0	0.47
106-93-4	Ethylene Dibromide	19.9		1.0	0.23
95-50-1	1,2-Dichlorobenzene	19.7		1.0	0.26
107-06-2	1,2-Dichloroethane	22.9		1.0	0.30
78-87-5	1,2-Dichloropropane	21.9		1.0	0.30
541-73-1	1,3-Dichlorobenzene	20.5		1.0	0.32
106-46-7	1,4-Dichlorobenzene	20.1		1.0	0.23
78-93-3	2-Butanone (MEK)	37.2		10	1.0
591-78-6	2-Hexanone	35.3		10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	38.0		10	0.71
67-64-1	Acetone	40.2		10	1.8
71-43-2	Benzene	21.4		1.0	0.28
75-27-4	Dichlorobromomethane	20.4		1.0	0.30
75-25-2	Bromoform	20.1		1.0	0.43
74-83-9	Bromomethane	20.5		1.0	0.42
75-15-0	Carbon disulfide	19.5		1.0	0.34
56-23-5	Carbon tetrachloride	23.2		1.0	0.35
108-90-7	Chlorobenzene	20.1		1.0	0.32
75-00-3	Chloroethane	22.0		1.0	0.41
67-66-3	Chloroform	20.8		1.0	0.31
74-87-3	Chloromethane	23.9		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	23.5		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	22.4		1.0	0.26
110-82-7	Cyclohexane	21.0		1.0	0.44
124-48-1	Chlorodibromomethane	19.8		1.0	0.25
75-71-8	Dichlorodifluoromethane	27.1		1.0	0.50
100-41-4	Ethylbenzene	21.5		1.0	0.26
98-82-8	Isopropylbenzene	21.5		1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-288056/4

Matrix: Water | Lab File ID: UX964529.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/20/2017 15:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	37.1		10	1.4
1634-04-4	Methyl tert-butyl ether	21.6		1.0	0.27
108-87-2	Methylcyclohexane	20.0		1.0	0.45
75-09-2	Methylene Chloride	21.3		1.0	0.53
100-42-5	Styrene	21.5		1.0	0.23
127-18-4	Tetrachloroethene	20.7		1.0	0.30
108-88-3	Toluene	20.9		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	23.4		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	18.4		1.0	0.31
79-01-6	Trichloroethene	23.0		1.0	0.33
75-69-4	Trichlorofluoromethane	25.0		1.0	0.50
75-01-4	Vinyl chloride	22.7		1.0	0.45
1330-20-7	Xylenes, Total	43.1		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	110		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82281-E-8 MS

Matrix: Water | Lab File ID: UX964556.D

Analysis Method: 8260C | Date Collected: 07/12/2017 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/21/2017 01:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	20.0		1.0	0.28
100-41-4	Ethylbenzene	20.1		1.0	0.26
108-88-3	Toluene	19.4		1.0	0.23
1330-20-7	Xylenes, Total	39.9		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	108		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82290-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82281-H-8 MSD

Matrix: Water | Lab File ID: UX964557.D

Analysis Method: 8260C | Date Collected: 07/12/2017 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/21/2017 02:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 288056 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	19.6		1.0	0.28
100-41-4	Ethylbenzene	18.8		1.0	0.26
108-88-3	Toluene	18.7		1.0	0.23
1330-20-7	Xylenes, Total	38.3		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: A3UX9 Start Date: 07/10/2017 19:06

Analysis Batch Number: 286596 End Date: 07/11/2017 00:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-286596/2		07/10/2017 19:06	1	BFB3716.D	DB-624 0.18(mm)
STD8260 240-286596/8 IC		07/10/2017 19:33	1	UX964311.D	DB-624 0.18(mm)
STD8260 240-286596/9 IC		07/10/2017 19:57	1	UX964312.D	DB-624 0.18(mm)
STD8260 240-286596/10 IC		07/10/2017 20:21	1	UX964313.D	DB-624 0.18(mm)
ICIS 240-286596/11		07/10/2017 20:45	1	UX964314.D	DB-624 0.18(mm)
STD8260 240-286596/12 IC		07/10/2017 21:09	1	UX964315.D	DB-624 0.18(mm)
STD8260 240-286596/13 IC		07/10/2017 21:33	1	UX964316.D	DB-624 0.18(mm)
ICV 240-286596/14		07/10/2017 21:57	1	UX964317.D	DB-624 0.18(mm)
STDA9 240-286596/15 IC		07/10/2017 22:20	1		DB-624 0.18(mm)
STDA9 240-286596/16 IC		07/10/2017 22:44	1		DB-624 0.18(mm)
STDA9 240-286596/17 IC		07/10/2017 23:08	1		DB-624 0.18(mm)
STDA9 240-286596/18 IC		07/10/2017 23:32	1		DB-624 0.18(mm)
STDA9 240-286596/19 IC		07/10/2017 23:56	1		DB-624 0.18(mm)
STDA9 240-286596/20 IC		07/11/2017 00:20	1		DB-624 0.18(mm)
ICV 240-286596/21		07/11/2017 00:44	1	UX964324.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: A3UX9 Start Date: 07/20/2017 14:21

Analysis Batch Number: 288056 End Date: 07/21/2017 02:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-288056/2		07/20/2017 14:21	1	BFB3729.D	DB-624 0.18(mm)
CCVIS 240-288056/3		07/20/2017 14:51	1	UX964528.D	DB-624 0.18(mm)
LCS 240-288056/4		07/20/2017 15:15	1	UX964529.D	DB-624 0.18(mm)
CCV 240-288056/6		07/20/2017 15:39	1	UX964530.D	DB-624 0.18(mm)
MDLV 240-288056/7		07/20/2017 16:03	1		DB-624 0.18(mm)
MB 240-288056/8		07/20/2017 16:27	1	UX964532.D	DB-624 0.18(mm)
ZZZZZ		07/20/2017 16:51	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 17:15	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 18:03	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 18:27	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 22:43	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 23:07	1		DB-624 0.18(mm)
ZZZZZ		07/20/2017 23:31	1		DB-624 0.18(mm)
ZZZZZ		07/21/2017 00:19	1		DB-624 0.18(mm)
240-82290-1		07/21/2017 00:43	100	UX964553.D	DB-624 0.18(mm)
ZZZZZ		07/21/2017 01:07	1		DB-624 0.18(mm)
ZZZZZ		07/21/2017 01:32	1		DB-624 0.18(mm)
240-82281-E-8 MS		07/21/2017 01:56	1	UX964556.D	DB-624 0.18(mm)
240-82281-H-8 MSD		07/21/2017 02:20	1	UX964557.D	DB-624 0.18(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
EW-2-START-071217	240-82290-1

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-2-START-071217 Lab Sample ID: 240-82290-1

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 16:30

Reporting Basis: WET Date Received: 07/14/2017 11:47

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	1300	100	25	ug/L			1	6010C
7439-96-5	Manganese	250	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	33	33	33	mg/L	U		1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	21	21	21	mg/L	U		1	2340B-1997

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICV 240-287672/4 07/18/2017 08:32				CCV 240-287672/67 07/18/2017 13:15				CCV 240-287672/79 07/18/2017 14:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24600		25000	99	50700		50000	101	49800		50000	100
Iron	12800		12500	102	25400		25000	102	25100		25000	100
Magnesium	25600		25000	102	49900		50000	100	49100		50000	98
Manganese	1520		1500	101	2050		2000	103	1990		2000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-287672/91 07/18/2017 15:00				CCV 240-287672/103 07/18/2017 15:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49600		50000	99	49200		50000	98				
Iron	24900		25000	100	24700		25000	99				
Magnesium	49000		50000	98	48400		50000	97				
Manganese	2020		2000	101	2020		2000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

ICV Source: MTTRCRIC_00049 Concentration Units: ug/L

CCV Source: MTTRCRIC_00049

Analyte	ICVL 240-287672/6 07/18/2017 08:41				CCVL 240-287672/111 07/18/2017 16:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5180		5000	104	5190		5000	104				
Iron	210		200	105	204		200	102				
Magnesium	5190		5000	104	5010		5000	100				
Manganese	15.2		15.0	101	16.4		15.0	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-287672/5 07/18/2017 08:36		CCB 240-287672/68 07/18/2017 13:19		CCB 240-287672/80 07/18/2017 14:13		CCB 240-287672/92 07/18/2017 15:04	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-287672/104 07/18/2017 15:55							
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U						
Iron	100	25	U						
Magnesium	5000	230	U						
Manganese	15	5.1	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-287479/1-A

Instrument Code: I9 Batch No.: 287672

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	25	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-95-4	Magnesium	230	U		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICSA 240-287672/8 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTTRICSAW_00035

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**471450**	**94**
Iron	**200000**	**191060**	**96**
Magnesium	**500000**	**501700**	**100**
Manganese		**2.09**	
Aluminum	*500000*	*501870*	*100*
Antimony		*-0.502*	
Arsenic		*0.889*	
Barium		*0.263*	
Beryllium		*0.303*	
Boron		*-2.74*	
Cadmium		*0.186*	
Chromium		*3.27*	
Cobalt		*0.497*	
Copper		*-5.74*	
Lead		*4.39*	
Lithium		*20.9*	
Molybdenum		*-1.89*	
Nickel		*-0.427*	
Potassium		*103*	
Selenium		*0.549*	
Silicon		*2.10*	
Silver		*-0.119*	
Sodium		*128*	
Strontium		*5.66*	
Thallium		*2.45*	
Tin		*1.28*	
Titanium		*-0.516*	
Vanadium		*-2.42*	
Zinc		*-1.09*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Lab Sample ID: ICSAB 240-287672/9 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTICPICSABW_00015

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**471510**	**94**
Iron	**200000**	**189630**	**95**
Magnesium	**500000**	**502670**	**101**
Manganese	**500**	**485**	**97**
Aluminum	*500000*	*498240*	*100*
Antimony	*1000*	*994*	*99*
Arsenic	*1000*	*1019*	*102*
Barium	*500*	*493*	*99*
Beryllium	*500*	*482*	*96*
Boron	*500*	*503*	*101*
Cadmium	*1000*	*1018*	*102*
Chromium	*500*	*484*	*97*
Cobalt	*500*	*501*	*100*
Copper	*500*	*522*	*104*
Lead	*1000*	*888*	*89*
Lithium	*500*	*537*	*107*
Molybdenum	*1000*	*911*	*91*
Nickel	*1000*	*993*	*99*
Potassium	*10000*	*10434*	*104*
Selenium	*1000*	*1003*	*100*
Silicon	*10000*	*9569*	*96*
Silver	*1000*	*1066*	*107*
Sodium	*10000*	*10420*	*104*
Strontium	*1500*	*1422*	*95*
Thallium	*1000*	*947*	*95*
Tin	*500*	*508*	*102*
Titanium	*500*	*487*	*97*
Vanadium	*500*	*475*	*95*
Zinc	*1000*	*1022*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-82240-G-2-B MS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	1420		430		1000	98	75-125		6010C
Manganese	610		100		500	101	75-125		6010C
Calcium	54800		4700	J	50000	100	75-125		6010C
Magnesium	55800		6300		50000	99	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-82240-G-2-C MSD

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1430		1000	100	75-125	1	20		6010C
Manganese	606		500	101	75-125	1	20		6010C
Calcium	54800		50000	100	75-125	0	20		6010C
Magnesium	56000		50000	99	75-125	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-287479/2-A

Lab Name: TestAmerica Canton Job No.: 240-82290-1

Sample Matrix: Water LCS Source: MTICP1_00065

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	1020		102	80	120		6010C
Manganese	500	494		99	80	120		6010C
Calcium	50000	50000		100	80	120		6010C
Magnesium	50000	49700		99	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-82240-G-2-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-82290-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	430		437	J	NC		6010C
Manganese	100		106		NC		6010C
Calcium	4700	J	4630	J	NC		6010C
Magnesium	6300		6560	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-82290-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		15000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-287479/1-A	07/17/2017 14:00	287479		50	50
LCS 240-287479/2-A	07/17/2017 14:00	287479		50	50
240-82240-G-2-B MS	07/17/2017 14:00	287479		50	50
240-82240-G-2-C MSD	07/17/2017 14:00	287479		50	50
240-82290-1	07/17/2017 14:00	287479		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ICIS 240-287672/1	1		08:19	X	X	X	X																						
CALSTD 240-287672/2 IC			08:24	X	X	X	X																						
CALSTD 240-287672/3 IC			08:28	X	X	X	X																						
ICV 240-287672/4	1		08:32	X	X	X	X																						
ICB 240-287672/5	1		08:36		X		X																						
ICVL 240-287672/6	1		08:41	X	X	X	X																						
ZZZZZZ			08:45																										
ICSA 240-287672/8	1		08:50	X	X	X	X																						
ICSAB 240-287672/9	1		08:54	X	X	X	X																						
CCV 240-287672/10			08:58																										
CCB 240-287672/11			09:02																										
ZZZZZZ			09:06																										
ZZZZZZ			09:11																										
ZZZZZZ			09:15																										
ZZZZZZ			09:20																										
ZZZZZZ			09:24																										
ZZZZZZ			09:28																										
CCV 240-287672/18			09:33																										
CCB 240-287672/19			09:37																										
ZZZZZZ			09:52																										
ZZZZZZ			09:56																										
ZZZZZZ			10:00																										
ZZZZZZ			10:04																										
ZZZZZZ			10:08																										
ZZZZZZ			10:13																										
ZZZZZZ			10:17																										
ZZZZZZ			10:22																										
ZZZZZZ			10:26																										
ZZZZZZ			10:30																										
CCV 240-287672/30			10:34																										
CCB 240-287672/31			10:38																										
ZZZZZZ			10:43																										
ZZZZZZ			10:47																										
ZZZZZZ			10:52																										
ZZZZZZ			10:56																										
ZZZZZZ			11:00																										
ZZZZZZ			11:05																										
ZZZZZZ			11:09																										
ZZZZZZ			11:14																										
ZZZZZZ			11:18																										
ZZZZZZ			11:22																										
CCV 240-287672/42			11:27																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
CCB 240-287672/43			11:31																											
CCVL 240-287672/44			11:35																											
ZZZZZZ			11:40																											
ZZZZZZ			11:44																											
ZZZZZZ			11:49																											
ZZZZZZ			11:53																											
ZZZZZZ			11:58																											
ZZZZZZ			12:02																											
ZZZZZZ			12:07																											
ZZZZZZ			12:11																											
ZZZZZZ			12:15																											
ZZZZZZ			12:19																											
CCV 240-287672/55			12:24																											
CCB 240-287672/56			12:28																											
ZZZZZZ			12:32																											
ZZZZZZ			12:36																											
ZZZZZZ			12:41																											
ZZZZZZ			12:45																											
ZZZZZZ			12:49																											
ZZZZZZ			12:53																											
ZZZZZZ			12:58																											
ZZZZZZ			13:02																											
ZZZZZZ			13:06																											
ZZZZZZ			13:10																											
CCV 240-287672/67	1		13:15	X	X	X	X																							
CCB 240-287672/68	1		13:19		X		X																							
ZZZZZZ			13:23																											
ZZZZZZ			13:27																											
ZZZZZZ			13:31																											
ZZZZZZ			13:35																											
ZZZZZZ			13:39																											
MB 240-287479/1-A	1	R	13:44		X		X																							
LCS 240-287479/2-A	1	R	13:48	X	X	X	X																							
ZZZZZZ			13:52																											
240-82240-G-2-A SD ^5	5	R	13:56		X		X																							
ZZZZZZ			14:05																											
CCV 240-287672/79	1		14:09	X	X	X	X																							
CCB 240-287672/80	1		14:13		X		X																							
240-82240-G-2-B MS	1	R	14:17	X	X	X	X																							
240-82240-G-2-C MSD	1	R	14:21	X	X	X	X																							
ZZZZZZ			14:25																											
ZZZZZZ			14:29																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:42																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:56																										
CCV 240-287672/91	1		15:00	X	X	X	X																						
CCB 240-287672/92	1		15:04		X		X																						
240-82290-1	1	R	15:09		X		X																						
ZZZZZZ			15:13																										
ZZZZZZ			15:17																										
ZZZZZZ			15:21																										
ZZZZZZ			15:26																										
ZZZZZZ			15:30																										
ZZZZZZ			15:34																										
ZZZZZZ			15:38																										
ZZZZZZ			15:43																										
ZZZZZZ			15:47																										
CCV 240-287672/103	1		15:51	X	X	X	X																						
CCB 240-287672/104	1		15:55		X		X																						
ZZZZZZ			15:59																										
ZZZZZZ			16:04																										
ZZZZZZ			16:08																										
ZZZZZZ			16:12																										
ZZZZZZ			16:17																										
ZZZZZZ			16:21																										
CCVL 240-287672/111	1		16:25	X	X	X	X																						
ZZZZZZ			16:30																										
ZZZZZZ			16:35																										
ZZZZZZ			16:39																										
CCV 240-287672/115			16:43																										
CCB 240-287672/116			16:47																										
ZZZZZZ			16:52																										
ZZZZZZ			16:56																										
ZZZZZZ			17:00																										
ZZZZZZ			17:05																										
ZZZZZZ			17:09																										
ZZZZZZ			17:13																										
ZZZZZZ			17:18																										
ZZZZZZ			17:22																										
ZZZZZZ			17:26																										
ZZZZZZ			17:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/127			17:35																										
CCB 240-287672/128			17:39																										
ZZZZZZ			17:44																										
ZZZZZZ			17:48																										
ZZZZZZ			17:52																										
ZZZZZZ			17:57																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
CCV 240-287672/139			18:27																										
CCB 240-287672/140			18:31																										
ZZZZZZ			18:36																										
ZZZZZZ			18:40																										
ZZZZZZ			18:44																										
ZZZZZZ			18:49																										
ZZZZZZ			18:53																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:06																										
ZZZZZZ			19:11																										
ZZZZZZ			19:15																										
CCV 240-287672/151			19:19																										
CCB 240-287672/152			19:24																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:36																										
ZZZZZZ			19:40																										
ZZZZZZ			19:44																										
ZZZZZZ			19:48																										
ZZZZZZ			19:53																										
ZZZZZZ			19:57																										
ZZZZZZ			20:01																										
ZZZZZZ			20:06																										
CCV 240-287672/163			20:10																										
CCB 240-287672/164			20:14																										
ZZZZZZ			20:18																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
ZZZZZZ			20:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			20:36																										
ZZZZZZ			20:40																										
ZZZZZZ			20:45																										
ZZZZZZ			20:49																										
ZZZZZZ			20:53																										
ZZZZZZ			20:58																										
CCV 240-287672/175			21:02																										
CCB 240-287672/176			21:06																										
ZZZZZZ			21:10																										
ZZZZZZ			21:15																										
ZZZZZZ			21:19																										
ZZZZZZ			21:23																										
ZZZZZZ			21:27																										
ZZZZZZ			21:32																										
ZZZZZZ			21:36																										
ZZZZZZ			21:40																										
ZZZZZZ			21:44																										
ZZZZZZ			21:48																										
CCV 240-287672/187			21:52																										
CCB 240-287672/188			21:56																										
ZZZZZZ			22:01																										
ZZZZZZ			22:05																										
ZZZZZZ			22:09																										
ZZZZZZ			22:13																										
ZZZZZZ			22:17																										
ZZZZZZ			22:21																										
ZZZZZZ			22:26																										
ZZZZZZ			22:30																										
ZZZZZZ			22:35																										
ZZZZZZ			22:39																										
CCV 240-287672/199			22:43																										
CCB 240-287672/200			22:47																										
ZZZZZZ			22:52																										
ZZZZZZ			22:56																										
ZZZZZZ			23:00																										
ZZZZZZ			23:05																										
ZZZZZZ			23:09																										
ZZZZZZ			23:13																										
ZZZZZZ			23:18																										
ZZZZZZ			23:22																										
ZZZZZZ			23:27																										
ZZZZZZ			23:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/211			23:35																										
CCB 240-287672/212			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:01																										
ZZZZZZ			00:05																										
ZZZZZZ			00:09																										
ZZZZZZ			00:14																										
ZZZZZZ			00:18																										
ZZZZZZ			00:23																										
CCV 240-287672/223			00:27																										
CCB 240-287672/224			00:31																										
ZZZZZZ			00:35																										
ZZZZZZ			00:40																										
ZZZZZZ			00:44																										
ZZZZZZ			00:48																										
ZZZZZZ			00:53																										
ZZZZZZ			00:57																										
ZZZZZZ			01:01																										
ZZZZZZ			01:06																										
ZZZZZZ			01:10																										
ZZZZZZ			01:15																										
CCV 240-287672/235			01:19																										
CCB 240-287672/236			01:23																										
ZZZZZZ			01:28																										
ZZZZZZ			01:32																										
ZZZZZZ			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:44																										
ZZZZZZ			01:48																										
ZZZZZZ			01:53																										
ZZZZZZ			01:57																										
ZZZZZZ			02:00																										
ZZZZZZ			02:05																										
CCV 240-287672/247			02:09																										
CCB 240-287672/248			02:13																										
ZZZZZZ			02:18																										
ZZZZZZ			02:22																										
ZZZZZZ			02:26																										
ZZZZZZ			02:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			02:36																										
ZZZZZZ			02:40																										
ZZZZZZ			02:44																										
ZZZZZZ			02:49																										
ZZZZZZ			02:53																										
ZZZZZZ			02:58																										
CCV 240-287672/259			03:02																										
CCB 240-287672/260			03:06																										
ZZZZZZ			03:10																										
ZZZZZZ			03:15																										
ZZZZZZ			03:19																										
ZZZZZZ			03:23																										
ZZZZZZ			03:28																										
ZZZZZZ			03:33																										
ZZZZZZ			03:37																										
ZZZZZZ			03:42																										
ZZZZZZ			03:46																										
ZZZZZZ			03:50																										
CCV 240-287672/271			03:54																										
CCB 240-287672/272			03:58																										
ZZZZZZ			04:03																										
ZZZZZZ			04:07																										
ZZZZZZ			04:11																										
ZZZZZZ			04:15																										
ZZZZZZ			04:19																										
ZZZZZZ			04:24																										
ZZZZZZ			04:28																										
ZZZZZZ			04:32																										
ZZZZZZ			04:36																										
ZZZZZZ			04:41																										
CCV 240-287672/283			04:45																										
CCB 240-287672/284			04:50																										
ZZZZZZ			04:54																										
ZZZZZZ			04:58																										
ZZZZZZ			05:03																										
ZZZZZZ			05:07																										
ZZZZZZ			05:12																										
ZZZZZZ			05:16																										
ZZZZZZ			05:20																										
ZZZZZZ			05:25																										
ZZZZZZ			05:29																										
ZZZZZZ			05:33																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/295			05:38																										
CCB 240-287672/296			05:42																										
ZZZZZZ			05:46																										
ZZZZZZ			05:51																										
ZZZZZZ			05:55																										
ZZZZZZ			06:00																										
ZZZZZZ			06:04																										
ZZZZZZ			06:09																										
ZZZZZZ			06:14																										
ZZZZZZ			06:18																										
ZZZZZZ			06:23																										
ZZZZZZ			06:27																										
CCV 240-287672/307			06:32																										
CCB 240-287672/308			06:36																										
ZZZZZZ			06:41																										
ZZZZZZ			06:45																										
ZZZZZZ			06:50																										
ZZZZZZ			06:55																										
ZZZZZZ			06:59																										
ZZZZZZ			07:04																										
ZZZZZZ			07:08																										
ZZZZZZ			07:13																										
ZZZZZZ			07:17																										
ZZZZZZ			07:21																										
CCV 240-287672/319			07:26																										
CCB 240-287672/320			07:30																										
ZZZZZZ			07:34																										
ZZZZZZ			07:39																										
ZZZZZZ			07:43																										
ZZZZZZ			07:47																										
ZZZZZZ			07:52																										
ZZZZZZ			07:56																										
ZZZZZZ			08:00																										
ZZZZZZ			08:05																										
ZZZZZZ			08:09																										
CCV 240-287672/330			08:13																										
CCB 240-287672/331			08:18																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 07/19/2017 16:03 End Date: 07/19/2017 16:03

Lab Sample Id	D/F	Type	Time	Analytes																										
				CaCO3	HardCC	MgHARD																								
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
240-82290-1	1	R	16:03	X	X	X																								
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287479 Batch Start Date: 07/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 07/17/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00075	MTICP1 00065	MTICP2A 00073	MTTMHCL 00162
MB 240-287479/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-287479/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82290-G-1	EW-2-START-071217	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00124
MB 240-287479/1		3005A, 6010C		1 mL
LCS 240-287479/2		3005A, 6010C		1 mL
240-82240-G-2 MS		3005A, 6010C	R	1 mL
240-82240-G-2 MSD		3005A, 6010C	R	1 mL
240-82290-G-1	EW-2-START-071217	3005A, 6010C	R	1 mL

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB1/HB2/HB3
Pipette ID	mp1
Digestion Tube/Cup ID	1703076

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
EW-2-START-071217	240-82290-1

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82290-1

SDG No.:

Project: MRC Block E

Client Sample ID	Lab Sample ID
EW-2-START-071217	240-82290-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-START-071217 Lab Sample ID: 240-82290-1

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 16:30

Reporting Basis: WET Date Received: 07/14/2017 11:47

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	4.9	5.0	2.6	mg/L	J		1	2320B-1997
24959-67-9	Bromide	0.76	0.50	0.044	mg/L			1	300.0
14797-65-0	Nitrite as N	0.016	0.10	0.014	mg/L	J		1	300.0
14797-55-8	Nitrate as N	0.53	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	7.0	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	150	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-START-071217 Lab Sample ID: 240-82290-1

Lab Name: TestAmerica Pittsburgh Job No.: 240-82290-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2017 16:30

Reporting Basis: WET Date Received: 07/14/2017 11:47

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Analyst: JMB Batch Start Date: 07/14/2017

Reporting Units: mg/L Analytical Batch No.: 287197

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:00	Bromide	10.4	10.0	104	90-110		WCICCCV_00776
			Sulfate	50.6	50.0	101	90-110		WCICCCV_00776
2	CCB	10:21	Bromide	0.044				U	
			Sulfate	0.35				U	
13	CCV	14:07	Bromide	10.3	10.0	103	90-110		WCICCCV_00776
			Sulfate	50.5	50.0	101	90-110		WCICCCV_00776
14	CCB	14:27	Bromide	0.044				U	
			Sulfate	0.35				U	
21	CCV	16:51	Bromide	9.45	10.0	95	90-110		WCICCCV_00776
			Sulfate	46.2	50.0	92	90-110		WCICCCV_00776
22	CCB	17:12	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Analyst: JMB Batch Start Date: 07/14/2017

Reporting Units: mg/L Analytical Batch No.: 287198

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:00	Nitrite as N	2.61	2.50	104	90-110		WCICCCV_00776
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00776
2	CCB	10:21	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	14:07	Nitrite as N	2.55	2.50	102	90-110		WCICCCV_00776
			Nitrate as N	2.56	2.50	102	90-110		WCICCCV_00776
14	CCB	14:27	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
21	CCV	16:51	Nitrite as N	2.34	2.50	94	90-110		WCICCCV_00776
			Nitrate as N	2.34	2.50	94	90-110		WCICCCV_00776
22	CCB	17:12	Nitrite as N	0.014				U	
			Nitrate as N	0.0140				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 287816	Date: 07/18/2017 17:05						
2320B-1997	MB 240-287816/3	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 287197	Date: 07/14/2017 16:10						
300.0	MB 240-287197/19	Bromide	0.044	U	mg/L	0.50	1
300.0	MB 240-287197/19	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 287198	Date: 07/14/2017 16:10						
300.0	MB 240-287198/19	Nitrite as N	0.014	U	mg/L	0.10	1
300.0	MB 240-287198/19	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 287522	Date: 07/17/2017 13:48						
SM 2540C	MB 240-287522/1	Total Dissolved Solids	7.8	U	mg/L	10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82290-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 217391 Date: 07/18/2017 11:24							
SM 2520B	MB 180-217391/1	Salinity	2.0	U	No Unit	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287197	Date: 07/14/2017 14:48										
300.0	240-82290-1	Bromide	0.76		mg/L						
300.0	240-82290-1 MS	Bromide	11.4		mg/L	10.0	107	80-120			
300.0	240-82290-1	Sulfate	7.0		mg/L						
300.0	240-82290-1 MS	Sulfate	58.5		mg/L	50.0	103	80-120			
Batch ID: 287198	Date: 07/14/2017 14:48										
300.0	240-82290-1	Nitrite as N	0.016	J	mg/L						
300.0	240-82290-1 MS	Nitrite as N	2.73		mg/L	2.50	108	80-120			
300.0	240-82290-1	Nitrate as N	0.53		mg/L						
300.0	240-82290-1 MS	Nitrate as N	3.16		mg/L	2.50	105	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287197 Date: 07/14/2017 15:09											
300.0	240-82290-1 MSD	Bromide	11.6		mg/L	10.0	109	80-120	2	15	
300.0	240-82290-1 MSD	Sulfate	59.6		mg/L	50.0	105	80-120	2	15	
Batch ID: 287198 Date: 07/14/2017 15:09											
300.0	240-82290-1 MSD	Nitrite as N	2.73		mg/L	2.50	108	80-120	0	15	
300.0	240-82290-1 MSD	Nitrate as N	3.21		mg/L	2.50	107	80-120	2	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 287816 Date: 07/18/2017 19:22								
2320B-1997		240-82072-F-16	Alkalinity	150	mg/L			
2320B-1997		240-82072-F-16 DU	Alkalinity	152	mg/L	0.1	20	
Batch ID: 287522 Date: 07/17/2017 13:48								
SM 2540C		240-82215-T-1	Total Dissolved Solids	170	mg/L			
SM 2540C		240-82215-T-1 DU	Total Dissolved Solids	168	mg/L	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82290-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 217391 Date: 07/18/2017 11:24								
SM 2520B		180-68209-AP-1	Salinity	2.0	No Unit			U
SM 2520B		180-68209-AP-1 DU	Salinity	2.0	No Unit	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287816	Date: 07/18/2017 16:59										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-287816/2	Alkalinity	385		mg/L	377	102	86-123			
Batch ID: 287197	Date: 07/14/2017 16:31										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287197/20	Bromide	10.6		mg/L	10.0	106	90-110			
300.0	LCS 240-287197/20	Sulfate	51.4		mg/L	50.0	103	90-110			
Batch ID: 287198	Date: 07/14/2017 16:31										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287198/20	Nitrite as N	2.51		mg/L	2.50	100	90-110			
300.0	LCS 240-287198/20	Nitrate as N	2.63		mg/L	2.50	105	90-110			
Batch ID: 287522	Date: 07/17/2017 13:48										
						LCS Source: WCPHENOVSOLID_00022					
SM 2540C	LCS 240-287522/2	Total Dissolved Solids	270		mg/L	242	112	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82290-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 07/18/2017 16:45 End Date: 07/18/2017 21:31

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			16:45	
LCS 240-287816/2	1	T	16:59	X
MB 240-287816/3	1	T	17:05	X
ZZZZZZ			17:09	
ZZZZZZ			17:17	
ZZZZZZ			17:24	
ZZZZZZ			17:31	
ZZZZZZ			17:41	
ZZZZZZ			17:51	
ZZZZZZ			18:05	
ZZZZZZ			18:19	
ZZZZZZ			18:32	
ZZZZZZ			18:45	
ZZZZZZ			18:59	
ZZZZZZ			19:03	
ZZZZZZ			19:12	
240-82072-F-16 DU	1	T	19:22	X
ZZZZZZ			19:31	
ZZZZZZ			19:42	
ZZZZZZ			19:54	
ZZZZZZ			20:12	
ZZZZZZ			20:24	
ZZZZZZ			20:41	
240-82290-1	1	T	20:47	X
ZZZZZZ			20:53	
ZZZZZZ			20:57	
ZZZZZZ			21:03	
ZZZZZZ			21:08	
ZZZZZZ			21:27	
ZZZZZZ			21:31	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/14/2017 10:00 End Date: 07/14/2017 18:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	SO4																								
CCV 240-287197/1	1		10:00	X	X																								
CCB 240-287197/2	1		10:21	X	X																								
ZZZZZZ			10:41																										
ZZZZZZ			11:02																										
ZZZZZZ			11:22																										
ZZZZZZ			11:43																										
ZZZZZZ			12:03																										
ZZZZZZ			12:24																										
ZZZZZZ			12:45																										
ZZZZZZ			13:05																										
ZZZZZZ			13:26																										
240-82290-1	1	T	13:46	X	X																								
CCV 240-287197/13	1		14:07	X	X																								
CCB 240-287197/14	1		14:27	X	X																								
240-82290-1 MS	1	T	14:48	X	X																								
240-82290-1 MSD	1	T	15:09	X	X																								
ZZZZZZ			15:29																										
ZZZZZZ			15:50																										
MB 240-287197/19	1	T	16:10	X	X																								
LCS 240-287197/20	1	T	16:31	X	X																								
CCV 240-287197/21	1		16:51	X	X																								
CCB 240-287197/22	1		17:12	X	X																								
ZZZZZZ			17:33																										
ZZZZZZ			17:53																										
CCV 240-287197/28			18:14																										
CCB 240-287197/29			18:34																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/14/2017 10:00 End Date: 07/14/2017 18:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-287198/1	1		10:00	X	X																								
CCB 240-287198/2	1		10:21	X	X																								
ZZZZZZ			10:41																										
ZZZZZZ			11:02																										
ZZZZZZ			11:22																										
ZZZZZZ			11:43																										
ZZZZZZ			12:03																										
ZZZZZZ			12:24																										
ZZZZZZ			12:45																										
ZZZZZZ			13:05																										
ZZZZZZ			13:26																										
240-82290-1	1	T	13:46	X	X																								
CCV 240-287198/13	1		14:07	X	X																								
CCB 240-287198/14	1		14:27	X	X																								
240-82290-1 MS	1	T	14:48	X	X																								
240-82290-1 MSD	1	T	15:09	X	X																								
ZZZZZZ			15:29																										
ZZZZZZ			15:50																										
MB 240-287198/19	1	T	16:10	X	X																								
LCS 240-287198/20	1	T	16:31	X	X																								
CCV 240-287198/21	1		16:51	X	X																								
CCB 240-287198/22	1		17:12	X	X																								
ZZZZZZ			17:33																										
ZZZZZZ			17:53																										
CCV 240-287198/28			18:14																										
CCB 240-287198/29			18:34																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/17/2017 13:48 End Date: 07/17/2017 13:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-287522/1	1	T	13:48	X																								
LCS 240-287522/2	1	T	13:48	X																								
240-82215-T-1 DU	1	T	13:48	X																								
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
240-82290-1	1	T	13:48	X																								
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									
ZZZZZZ			13:48																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82290-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 07/18/2017 11:24 End Date: 07/18/2017 11:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
MB 180-217391/1	1	T	11:24	X																								
ZZZZZZ			11:24																									
180-68209-AP-1 DU	1	T	11:24	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
240-82290-1	1	T	11:24	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									
ZZZZZZ			11:24																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287816 Batch Start Date: 07/18/17 16:45 Batch Analyst: Larue, Charles

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00017		
LCS 240-287816/2		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-287816/3		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-82072-F-16 DU		2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82290-H-1	EW-2-START-071217	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-3115970
pH Buffer 2 ID	7-3072347
pH Buffer 3 ID	10-2951041
pH Buffer 4 ID	12-3072210
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
Probe ID	127
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 279524 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279524/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279524/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279524/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279524/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279524/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279524/6 IC		300.0		5 mL	2 mL				
STD7 240-279524/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279524/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279524/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 279525 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279525/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279525/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279525/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279525/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279525/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279525/6 IC		300.0		5 mL	2 mL				
STD7 240-279525/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279525/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279525/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287197 Batch Start Date: 07/14/17 10:00 Batch Analyst: Burns, Jill

Batch Method: 300.0 Batch End Date: 07/14/17 18:34

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015
CCV 240-287197/1		300.0		5 mL	5 mL	5 mL			
CCB 240-287197/2		300.0		5 mL	5 mL				
240-82290-H-1	EW-2-START-071217	300.0	T	5 mL	5 mL				
CCV 240-287197/13		300.0		5 mL	5 mL	5 mL			
CCB 240-287197/14		300.0		5 mL	5 mL				
240-82290-H-1 MS	EW-2-START-071217	300.0	T	5 mL	5 mL			0.1 mL	0.1 mL
240-82290-H-1 MSD	EW-2-START-071217	300.0	T	5 mL	5 mL			0.1 mL	0.1 mL
MB 240-287197/19		300.0		5 mL	5 mL				
LCS 240-287197/20		300.0		5 mL	5 mL		5 mL		
CCV 240-287197/21		300.0		5 mL	5 mL	5 mL			
CCB 240-287197/22		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287198 Batch Start Date: 07/14/17 10:00 Batch Analyst: Burns, Jill

Batch Method: 300.0 Batch End Date: 07/14/17 18:34

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015
CCV 240-287198/1		300.0		5 mL	5 mL	5 mL			
CCB 240-287198/2		300.0		5 mL	5 mL				
240-82290-H-1	EW-2-START-071217	300.0	T	5 mL	5 mL				
CCV 240-287198/13		300.0		5 mL	5 mL	5 mL			
CCB 240-287198/14		300.0		5 mL	5 mL				
240-82290-H-1 MS	EW-2-START-071217	300.0	T	5 mL	5 mL			0.1 mL	0.1 mL
240-82290-H-1 MSD	EW-2-START-071217	300.0	T	5 mL	5 mL			0.1 mL	0.1 mL
MB 240-287198/19		300.0		5 mL	5 mL				
LCS 240-287198/20		300.0		5 mL	5 mL		5 mL		
CCV 240-287198/21		300.0		5 mL	5 mL	5 mL			
CCB 240-287198/22		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287522 Batch Start Date: 07/17/17 13:48 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date: 07/18/17 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-287522/1		SM 2540C			100 mL	3.6744 g	3.6741 g	3.6740 g	0 g
LCS 240-287522/2		SM 2540C			50 mL	3.6779 g	3.6919 g	3.6914 g	0 g
240-82215-T-1 DU		SM 2540C	T	440 umhos/cm	100 mL	3.6722 g	3.6893 g	3.6890 g	0 g
240-82290-H-1	EW-2-START-071217	SM 2540C	T	250 umhos/cm	100 mL	3.6288 g	3.6438 g	3.6433 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight4	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 240-287522/1		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	-0.0003 g	-0.0004 g
LCS 240-287522/2		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	0.014 g	0.0135 g
240-82215-T-1 DU		SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0171 g	0.0168 g
240-82290-H-1	EW-2-START-071217	SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.015 g	0.0145 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022	
MB 240-287522/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 240-287522/2		SM 2540C		N/A g	N/A g	100 mL	OK	50 mL	
240-82215-T-1 DU		SM 2540C	T	N/A g	N/A g	100 mL	OK		
240-82290-H-1	EW-2-START-071217	SM 2540C	T	N/A g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82290-1

SDG No.:

Batch Number: 287522 Batch Start Date: 07/17/17 13:48 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date: 07/18/17 15:10

Batch Notes	
Balance ID	B048
Batch Comment	TDS VESSELS--120116LR-6336
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	07/18/17 13:15
Constant Weight (WT2) Date/Time Out	07/18/17 14:24
Uncorrected CW (Wt2) Temp In	180 Degrees C
Uncorrected CW (Wt2) Temp Out	180 Degrees C
Corrected Temperature in Oven	104 Degrees C
Corrected Temperature out of Oven	104 Degrees C
Date/Time Samples placed in Oven	07/17/17 16:08
Date/Time Samples Removed from Oven	07/18/17 09:23
Filter Paper ID	3153840
Nominal Amount Used	100 mL
Oven ID	O06/O01
Weight(WT1) Start Date/Time	07/18/17 09:23
Weight(WT1) Date/Time Out	07/18/17 12:50
Uncorrected Weight(WT1) Start Temp	180 Degrees C
Uncorrected Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

TestAmerica Baltimore
7526 Connelley Drive
Suite F
Hanover, MD 21076
Phone: 410.766.2516 Fax:

180325

Chain of Custody Record

0.9/C0.9

000517

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

BALTIMORE

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210 (0713)

Client Contact	Project Manager: Chris Pike	Site Contact: Stu Cameron	Date: 7/13/17	COC No:
Company Name: Tetra Tech	Tel/Fax:	Lab Contact: John McFadden	Carrier:	1 of 1 COCs
Address: 2251 Century Blvd Ste 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: (301) 528-5582	TAT if different from Below 5day			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: MRC Block E Demolition	☐ 1 week			
Site: MRC, MD	☐ 2 days			Job / SDG No.:
PO# 112IC07896-LF19	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Alkalinity	Sulfate, Bromide, Nitrate, Nitrite	Iron & Manganese	Salinity	Hardness	Sample Specific Notes:
TB-071317	—	—	—	AQ	2			X						
EW-2-START-071217	7-12-17	1630	G	AQ	8			X	X	X	X	X	X	
~~EW-2-MID-071317~~	~~7-13-17~~	~~1330~~	~~G~~	~~AQ~~	~~8~~			~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	

240-82290 Chain of Custody

Page 155 of 157

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ 2 1 1 4 1 4

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-13-17/1500		TestAmerica	7-13-2017/1500
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TestAmerica	7-13-2017/1700	POP	TAL	7-14-17 1000
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 82290**
Canton Facility

Client TETRA TECH Site Name ——— Cooler unpacked by: POP

Cooler Received on 7-14-17 Opened on 7-14-17

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.4** °C) Observed Cooler Temp. ——— °C Corrected Cooler Temp. ——— °C
   IR GUN #36 (CF **+0**°C) Observed Cooler Temp. 0.9 °C Corrected Cooler Temp. 0.9 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

DID NOT RECEIVE TB

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Ref: SOP NC-SC-0005, Sample Receiving
\\tacorp\corp\QA\QA_Facilities\Canton-QA\Document-Management\Work-Instruction\Word Version Work Instructions\WI-NC-099-052317 Cooler Receipt Form.doc djl

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
EW-2-START-071217	240-82290-F-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-2-START-071217	240-82290-G-1	Plastic 250ml - with Nitric Acid	<2	_____	_____

ANALYTICAL REPORT

Job Number: 240-82390-1

Job Description: MRC Block E Downgradient

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Mike Martin



Approved for release.
John McFadden
Project Manager I
7/24/2017 12:40 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
07/24/2017

cc: Tony Apanavage
Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Detection Summary 8

Client Sample Results 9

Default Detection Limits 14

Surrogate Summary 16

QC Sample Results 17

QC Association 23

Chronicle 25

Certification Summary 26

Method Summary 27

Sample Summary 28

Manual Integration Summary 29

Reagent Traceability 32

Organic Sample Data 52

GC/MS VOA 52

Method 8260C 52

Method 8260C QC Summary 53

Method 8260C Sample Data 65

Standards Data 71

Method 8260C ICAL Data 71

Method 8260C CCAL Data 81

Raw QC Data 89

Method 8260C Blank Data 89

Table of Contents

Method 8260C LCS/LCSD Data 91

Method 8260C MS/MSD Data 93

Method 8260C Run Logs 97

Inorganic Sample Data 99

Metals Data 99

Met Cover Page 100

Met Sample Data 101

Met QC Data 103

Met ICV/CCV 103

Met Blanks 106

Met ICSA/ICSAB 109

Met MS/MSD/PDS 111

Met LCS/LCSD 113

Met Serial Dilution 114

Met MDL 115

Met IECF 119

Met Linear Ranges 120

Met Preparation Log 121

Met Analysis Run Log 122

Met Prep Data 131

General Chemistry Data 132

Gen Chem Cover Page 133

Gen Chem Sample Data 135

Gen Chem QC Data 139

Gen Chem ICV/CCV 139

Gen Chem Blanks 142

Table of Contents

Gen Chem MS/MSD/PDS 144

Gen Chem Duplicates 146

Gen Chem LCS/LCSD 148

Gen Chem MDL 149

Gen Chem Analysis Run Log 157

Gen Chem Prep Data 164

Subcontracted Data 174

Shipping and Receiving Documents 175

Client Chain of Custody 176

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E Downgradient

Report Number: 240-82390-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 2520B Salinity analyses was performed at the TestAmerica Pittsburgh Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 7/15/2017 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples EW-2-MID-071317 (240-82390-1), EW-2-END-071417 (240-82390-2) and TB-071417 (240-82390-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/17/2017.

Samples EW-2-MID-071317 (240-82390-1)[125X] and EW-2-END-071417 (240-82390-2)[250X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-287405 was outside the method criteria for the following analytes: Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. EW-2-MID-071317 (240-82390-1), EW-2-END-071417 (240-82390-2), TB-071417 (240-82390-3) and (CCVIS 240-287405/3)

The following sample submitted for volatiles analysis was received with insufficient preservation (pH >2): EW-2-END-071417 (240-82390-2). The sample had a pH of 6.

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

TOTAL RECOVERABLE METALS (ICP)
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/17/2017 and analyzed on 07/18/2017.

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

HARDNESS
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 07/19/2017.

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

ALKALINITY
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/18/2017.

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

TOTAL DISSOLVED SOLIDS
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/19/2017 and 07/21/2017.

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

ANIONS
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/15/2017 and 07/18/2017.

Reanalysis of the following sample was performed outside of the analytical holding time due to QC problems from initial run: EW-2-END-071417 (240-82390-2).

The associated sample was originally analyzed in hold, but due to analyst error no LCS was obtained. The samples were then reanalyzed outside of hold. The results confirmed and both sets of data are reported. EW-2-END-071417 (240-82390-2).

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

ANIONS
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/18/2017.

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

SALINITY
Samples EW-2-MID-071317 (240-82390-1) and EW-2-END-071417 (240-82390-2) were analyzed for Salinity in accordance with SM 2520B. The samples were analyzed on 07/19/2017.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

Client Sample ID: EW-2-MID-071317 — Lab Sample ID: 240-82390-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3900		130	41	ug/L	125		8260C	Total/NA
Iron	120		100	25	ug/L	1		6010C	Total Recoverable
Manganese	200		15	5.1	ug/L	1		6010C	Total Recoverable
Bromide	0.79		0.50	0.044	mg/L	1		300.0	Total/NA
Sulfate	7.0		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	150		10	7.8	mg/L	1		SM 2540C	Total/NA
Nitrate as N - RA	0.89	H	0.10	0.014	mg/L	1		300.0	Total/NA

Client Sample ID: EW-2-END-071417 — Lab Sample ID: 240-82390-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5800		250	83	ug/L	250		8260C	Total/NA
Iron	460		100	25	ug/L	1		6010C	Total Recoverable
Manganese	200		15	5.1	ug/L	1		6010C	Total Recoverable
Bromide	1.0		0.50	0.044	mg/L	1		300.0	Total/NA
Nitrate as N	1.0		0.10	0.014	mg/L	1		300.0	Total/NA
Sulfate	7.2		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	130		10	7.8	mg/L	1		SM 2540C	Total/NA
Nitrate as N - RA	1.1	H	0.10	0.014	mg/L	1		300.0	Total/NA

Client Sample ID: TB-071417 — Lab Sample ID: 240-82390-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.0	J	10	1.8	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EW-2-MID-071317

Date Collected: 07/13/17 16:00
Date Received: 07/15/17 09:40

Lab Sample ID: 240-82390-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	29	U	130	29	ug/L			07/17/17 16:16	125
1,1,2,2-Tetrachloroethane	40	U	130	40	ug/L			07/17/17 16:16	125
1,1,2-Trichloro-1,2,2-trifluoroethane	51	U	130	51	ug/L			07/17/17 16:16	125
1,1,2-Trichloroethane	43	U	130	43	ug/L			07/17/17 16:16	125
1,1-Dichloroethane	31	U	130	31	ug/L			07/17/17 16:16	125
1,1-Dichloroethene	34	U	130	34	ug/L			07/17/17 16:16	125
1,2,4-Trichlorobenzene	34	U	130	34	ug/L			07/17/17 16:16	125
1,2-Dibromo-3-Chloropropane	59	U	250	59	ug/L			07/17/17 16:16	125
Ethylene Dibromide	29	U	130	29	ug/L			07/17/17 16:16	125
1,2-Dichlorobenzene	33	U	130	33	ug/L			07/17/17 16:16	125
1,2-Dichloroethane	38	U	130	38	ug/L			07/17/17 16:16	125
1,2-Dichloropropane	38	U	130	38	ug/L			07/17/17 16:16	125
1,3-Dichlorobenzene	40	U	130	40	ug/L			07/17/17 16:16	125
1,4-Dichlorobenzene	29	U	130	29	ug/L			07/17/17 16:16	125
2-Butanone (MEK)	130	U	1300	130	ug/L			07/17/17 16:16	125
2-Hexanone	150	U	1300	150	ug/L			07/17/17 16:16	125
4-Methyl-2-pentanone (MIBK)	89	U	1300	89	ug/L			07/17/17 16:16	125
Acetone	220	U	1300	220	ug/L			07/17/17 16:16	125
Benzene	35	U	130	35	ug/L			07/17/17 16:16	125
Dichlorobromomethane	38	U	130	38	ug/L			07/17/17 16:16	125
Bromoform	54	U	130	54	ug/L			07/17/17 16:16	125
Bromomethane	53	U	130	53	ug/L			07/17/17 16:16	125
Carbon disulfide	43	U	130	43	ug/L			07/17/17 16:16	125
Carbon tetrachloride	44	U	130	44	ug/L			07/17/17 16:16	125
Chlorobenzene	40	U	130	40	ug/L			07/17/17 16:16	125
Chloroethane	51	U	130	51	ug/L			07/17/17 16:16	125
Chloroform	39	U	130	39	ug/L			07/17/17 16:16	125
Chloromethane	54	U	130	54	ug/L			07/17/17 16:16	125
cis-1,2-Dichloroethene	38	U	130	38	ug/L			07/17/17 16:16	125
cis-1,3-Dichloropropene	33	U	130	33	ug/L			07/17/17 16:16	125
Cyclohexane	55	U	130	55	ug/L			07/17/17 16:16	125
Chlorodibromomethane	31	U	130	31	ug/L			07/17/17 16:16	125
Dichlorodifluoromethane	63	U	130	63	ug/L			07/17/17 16:16	125
Ethylbenzene	33	U	130	33	ug/L			07/17/17 16:16	125
Isopropylbenzene	26	U	130	26	ug/L			07/17/17 16:16	125
Methyl acetate	180	U	1300	180	ug/L			07/17/17 16:16	125
Methyl tert-butyl ether	34	U	130	34	ug/L			07/17/17 16:16	125
Methylcyclohexane	56	U	130	56	ug/L			07/17/17 16:16	125
Methylene Chloride	66	U	130	66	ug/L			07/17/17 16:16	125
Styrene	29	U	130	29	ug/L			07/17/17 16:16	125
Tetrachloroethene	38	U	130	38	ug/L			07/17/17 16:16	125
Toluene	29	U	130	29	ug/L			07/17/17 16:16	125
trans-1,2-Dichloroethene	36	U	130	36	ug/L			07/17/17 16:16	125
trans-1,3-Dichloropropene	39	U	130	39	ug/L			07/17/17 16:16	125
Trichloroethene	**3900**		130	41	ug/L			07/17/17 16:16	125
Trichlorofluoromethane	63	U	130	63	ug/L			07/17/17 16:16	125
Vinyl chloride	56	U	130	56	ug/L			07/17/17 16:16	125
Xylenes, Total	30	U	250	30	ug/L			07/17/17 16:16	125

Client Sample ID: EW-2-MID-071317 — Lab Sample ID: 240-82390-1

Date Collected: 07/13/17 16:00 — **Matrix: Water**
Date Received: 07/15/17 09:40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*73 - 120*		*07/17/17 16:16*	*125*
Dibromofluoromethane (Surr)	*85*		*69 - 124*		*07/17/17 16:16*	*125*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*07/17/17 16:16*	*125*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*		*07/17/17 16:16*	*125*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	33	U	33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	12	U	12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	21	U	21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**120**		100	25	ug/L		07/17/17 14:00	07/18/17 15:13	1
Manganese	**200**		15	5.1	ug/L		07/17/17 14:00	07/18/17 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/18/17 20:53	1
Bromide	**0.79**		0.50	0.044	mg/L			07/18/17 13:41	1
Sulfate	**7.0**		1.0	0.35	mg/L			07/18/17 13:41	1
Salinity	2.0	U	2.0	2.0	No Unit			07/19/17 06:08	1
Total Dissolved Solids	**150**		10	7.8	mg/L			07/19/17 11:28	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U H	0.10	0.014	mg/L			07/18/17 13:41	1
Nitrate as N	**0.89**	**H**	0.10	0.014	mg/L			07/18/17 13:41	1

Client Sample ID: EW-2-END-071417 — Lab Sample ID: 240-82390-2

Date Collected: 07/14/17 07:36 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	58	U	250	58	ug/L			07/17/17 16:39	250
1,1,2,2-Tetrachloroethane	80	U	250	80	ug/L			07/17/17 16:39	250
1,1,2-Trichloro-1,2,2-trifluoroethane	100	U	250	100	ug/L			07/17/17 16:39	250
1,1,2-Trichloroethane	85	U	250	85	ug/L			07/17/17 16:39	250
1,1-Dichloroethane	63	U	250	63	ug/L			07/17/17 16:39	250
1,1-Dichloroethene	68	U	250	68	ug/L			07/17/17 16:39	250
1,2,4-Trichlorobenzene	68	U	250	68	ug/L			07/17/17 16:39	250
1,2-Dibromo-3-Chloropropane	120	U	500	120	ug/L			07/17/17 16:39	250
Ethylene Dibromide	58	U	250	58	ug/L			07/17/17 16:39	250
1,2-Dichlorobenzene	65	U	250	65	ug/L			07/17/17 16:39	250
1,2-Dichloroethane	75	U	250	75	ug/L			07/17/17 16:39	250
1,2-Dichloropropane	75	U	250	75	ug/L			07/17/17 16:39	250
1,3-Dichlorobenzene	80	U	250	80	ug/L			07/17/17 16:39	250
1,4-Dichlorobenzene	58	U	250	58	ug/L			07/17/17 16:39	250
2-Butanone (MEK)	260	U	2500	260	ug/L			07/17/17 16:39	250

Client Sample ID: EW-2-END-071417 **Lab Sample ID: 240-82390-2**
Date Collected: 07/14/17 07:36 **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	310	U	2500	310	ug/L			07/17/17 16:39	250
4-Methyl-2-pentanone (MIBK)	180	U	2500	180	ug/L			07/17/17 16:39	250
Acetone	440	U	2500	440	ug/L			07/17/17 16:39	250
Benzene	70	U	250	70	ug/L			07/17/17 16:39	250
Dichlorobromomethane	75	U	250	75	ug/L			07/17/17 16:39	250
Bromoform	110	U	250	110	ug/L			07/17/17 16:39	250
Bromomethane	110	U	250	110	ug/L			07/17/17 16:39	250
Carbon disulfide	85	U	250	85	ug/L			07/17/17 16:39	250
Carbon tetrachloride	88	U	250	88	ug/L			07/17/17 16:39	250
Chlorobenzene	80	U	250	80	ug/L			07/17/17 16:39	250
Chloroethane	100	U	250	100	ug/L			07/17/17 16:39	250
Chloroform	78	U	250	78	ug/L			07/17/17 16:39	250
Chloromethane	110	U	250	110	ug/L			07/17/17 16:39	250
cis-1,2-Dichloroethene	75	U	250	75	ug/L			07/17/17 16:39	250
cis-1,3-Dichloropropene	65	U	250	65	ug/L			07/17/17 16:39	250
Cyclohexane	110	U	250	110	ug/L			07/17/17 16:39	250
Chlorodibromomethane	63	U	250	63	ug/L			07/17/17 16:39	250
Dichlorodifluoromethane	130	U	250	130	ug/L			07/17/17 16:39	250
Ethylbenzene	65	U	250	65	ug/L			07/17/17 16:39	250
Isopropylbenzene	53	U	250	53	ug/L			07/17/17 16:39	250
Methyl acetate	360	U	2500	360	ug/L			07/17/17 16:39	250
Methyl tert-butyl ether	68	U	250	68	ug/L			07/17/17 16:39	250
Methylcyclohexane	110	U	250	110	ug/L			07/17/17 16:39	250
Methylene Chloride	130	U	250	130	ug/L			07/17/17 16:39	250
Styrene	58	U	250	58	ug/L			07/17/17 16:39	250
Tetrachloroethene	75	U	250	75	ug/L			07/17/17 16:39	250
Toluene	58	U	250	58	ug/L			07/17/17 16:39	250
trans-1,2-Dichloroethene	73	U	250	73	ug/L			07/17/17 16:39	250
trans-1,3-Dichloropropene	78	U	250	78	ug/L			07/17/17 16:39	250
Trichloroethene	**5800**		250	83	ug/L			07/17/17 16:39	250
Trichlorofluoromethane	130	U	250	130	ug/L			07/17/17 16:39	250
Vinyl chloride	110	U	250	110	ug/L			07/17/17 16:39	250
Xylenes, Total	60	U	500	60	ug/L			07/17/17 16:39	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/17/17 16:39*	*250*
Dibromofluoromethane (Surr)	*84*		*69 - 124*		*07/17/17 16:39*	*250*
4-Bromofluorobenzene (Surr)	*89*		*69 - 120*		*07/17/17 16:39*	*250*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*		*07/17/17 16:39*	*250*

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	33	U	33	33	mg/L			07/19/17 16:03	1
Calcium hardness as calcium carbonate	12	U	12	12	mg/L			07/19/17 16:03	1
Magnesium hardness as calcium carbonate	21	U	21	21	mg/L			07/19/17 16:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**460**		100	25	ug/L		07/17/17 14:00	07/18/17 15:17	1

Client Sample ID: EW-2-END-071417 — Lab Sample ID: 240-82390-2

Date Collected: 07/14/17 07:36 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**200**		15	5.1	ug/L		07/17/17 14:00	07/18/17 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/18/17 21:03	1
Bromide	**1.0**		0.50	0.044	mg/L			07/18/17 14:01	1
Nitrite as N	0.014	U	0.10	0.014	mg/L			07/15/17 17:03	1
Nitrate as N	**1.0**		0.10	0.014	mg/L			07/15/17 17:03	1
Sulfate	**7.2**		1.0	0.35	mg/L			07/18/17 14:01	1
Salinity	2.0	U	2.0	2.0	No Unit			07/19/17 06:08	1
Total Dissolved Solids	**130**		10	7.8	mg/L			07/21/17 08:44	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U H	0.10	0.014	mg/L			07/18/17 14:01	1
Nitrate as N	**1.1**	**H**	0.10	0.014	mg/L			07/18/17 14:01	1

Client Sample ID: TB-071417 — Lab Sample ID: 240-82390-3

Date Collected: 07/14/17 00:00 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 17:03	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 17:03	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/17/17 17:03	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 17:03	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 17:03	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 17:03	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 17:03	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/17/17 17:03	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 17:03	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 17:03	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 17:03	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 17:03	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 17:03	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 17:03	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 17:03	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 17:03	1
Acetone	**2.0**	**J**	10	1.8	ug/L			07/17/17 17:03	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 17:03	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/17/17 17:03	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 17:03	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 17:03	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 17:03	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 17:03	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 17:03	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 17:03	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 17:03	1

Client Sample ID: TB-071417 **Lab Sample ID: 240-82390-3**
Date Collected: 07/14/17 00:00 **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 17:03	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 17:03	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 17:03	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/17/17 17:03	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/17/17 17:03	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 17:03	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 17:03	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 17:03	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/17/17 17:03	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 17:03	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/17/17 17:03	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 17:03	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 17:03	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 17:03	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 17:03	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 17:03	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 17:03	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 17:03	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 17:03	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 17:03	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/17/17 17:03*	*1*
Dibromofluoromethane (Surr)	*84*		*69 - 124*		*07/17/17 17:03*	*1*
4-Bromofluorobenzene (Surr)	*89*		*69 - 120*		*07/17/17 17:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*78*		*61 - 138*		*07/17/17 17:03*	*1*

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

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

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	1.0	0.23	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.32	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.41	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.34	ug/L	8260C
1,1-Dichloroethane	1.0	0.25	ug/L	8260C
1,1-Dichloroethene	1.0	0.27	ug/L	8260C
1,2,4-Trichlorobenzene	1.0	0.27	ug/L	8260C
1,2-Dibromo-3-Chloropropane	2.0	0.47	ug/L	8260C
1,2-Dichlorobenzene	1.0	0.26	ug/L	8260C
1,2-Dichloroethane	1.0	0.30	ug/L	8260C
1,2-Dichloropropane	1.0	0.30	ug/L	8260C
1,3-Dichlorobenzene	1.0	0.32	ug/L	8260C
1,4-Dichlorobenzene	1.0	0.23	ug/L	8260C
2-Butanone (MEK)	10	1.0	ug/L	8260C
2-Hexanone	10	1.2	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	10	0.71	ug/L	8260C
Acetone	10	1.8	ug/L	8260C
Benzene	1.0	0.28	ug/L	8260C
Bromoform	1.0	0.43	ug/L	8260C
Bromomethane	1.0	0.42	ug/L	8260C
Carbon disulfide	1.0	0.34	ug/L	8260C
Carbon tetrachloride	1.0	0.35	ug/L	8260C
Chlorobenzene	1.0	0.32	ug/L	8260C
Chlorodibromomethane	1.0	0.25	ug/L	8260C
Chloroethane	1.0	0.41	ug/L	8260C
Chloroform	1.0	0.31	ug/L	8260C
Chloromethane	1.0	0.43	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.26	ug/L	8260C
Cyclohexane	1.0	0.44	ug/L	8260C
Dichlorobromomethane	1.0	0.30	ug/L	8260C
Dichlorodifluoromethane	1.0	0.50	ug/L	8260C
Ethylbenzene	1.0	0.26	ug/L	8260C
Ethylene Dibromide	1.0	0.23	ug/L	8260C
Isopropylbenzene	1.0	0.21	ug/L	8260C
Methyl acetate	10	1.4	ug/L	8260C
Methyl tert-butyl ether	1.0	0.27	ug/L	8260C
Methylcyclohexane	1.0	0.45	ug/L	8260C
Methylene Chloride	1.0	0.53	ug/L	8260C
Styrene	1.0	0.23	ug/L	8260C
Tetrachloroethene	1.0	0.30	ug/L	8260C
Toluene	1.0	0.23	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.31	ug/L	8260C
Trichloroethene	1.0	0.33	ug/L	8260C
Trichlorofluoromethane	1.0	0.50	ug/L	8260C
Vinyl chloride	1.0	0.45	ug/L	8260C
Xylenes, Total	2.0	0.24	ug/L	8260C

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

Method: 2340B-1997 - Total Hardness (as CaCO3) by calculation - Total Recoverable

Analyte	RL	MDL	Units	Method
Calcium hardness as calcium carbonate	12	12	mg/L	2340B-1997
Hardness as calcium carbonate	33	33	mg/L	2340B-1997
Magnesium hardness as calcium carbonate	21	21	mg/L	2340B-1997

Method: 6010C - Metals (ICP) - Total Recoverable

Prep: 3005A

Analyte	RL	MDL	Units	Method
Iron	100	25	ug/L	6010C
Manganese	15	5.1	ug/L	6010C

General Chemistry

Analyte	RL	MDL	Units	Method
Alkalinity	5.0	2.6	mg/L	2320B-1997
Bromide	0.50	0.044	mg/L	300.0
Nitrate as N	0.10	0.014	mg/L	300.0
Nitrite as N	0.10	0.014	mg/L	300.0
Sulfate	1.0	0.35	mg/L	300.0
Salinity	2.0	2.0	No Unit	SM 2520B
Total Dissolved Solids	10	7.8	mg/L	SM 2540C

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	12DCE
Lab Sample ID	Client Sample ID	(73-120)	(69-124)	(69-120)	(61-138)
240-82240-B-2 MS	Matrix Spike	108	84	97	80
240-82240-B-2 MSD	Matrix Spike Duplicate	111	86	99	80
240-82390-1	EW-2-MID-071317	105	85	92	79
240-82390-2	EW-2-END-071417	103	84	89	79
240-82390-3	TB-071417	103	84	89	78
LCS 240-287405/4	Lab Control Sample	107	84	97	79
MB 240-287405/7	Method Blank	102	82	92	78

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-287405/7
Matrix: Water
Analysis Batch: 287405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
1,1,2-Trichloroethane	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 10:44	1
Ethylene Dibromide	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 10:44	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 10:44	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 10:44	1
Acetone	1.8	U	10	1.8	ug/L			07/17/17 10:44	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
Dichlorobromomethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 10:44	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 10:44	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Cyclohexane	0.44	U	1.0	0.44	ug/L			07/17/17 10:44	1
Chlorodibromomethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 10:44	1
Methyl acetate	1.4	U	10	1.4	ug/L			07/17/17 10:44	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
Methylcyclohexane	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 10:44	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 10:44	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 10:44	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 10:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*102*		*73 - 120*		*07/17/17 10:44*	*1*
Dibromofluoromethane (Surr)	*82*		*69 - 124*		*07/17/17 10:44*	*1*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*07/17/17 10:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*78*		*61 - 138*		*07/17/17 10:44*	*1*

Lab Sample ID: LCS 240-287405/4 **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 287405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	16.0		ug/L		80	64 - 147
1,1,2,2-Tetrachloroethane	20.0	22.7		ug/L		114	58 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7		ug/L		89	65 - 144
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	76 - 121
1,1-Dichloroethane	20.0	18.5		ug/L		92	74 - 120
1,1-Dichloroethene	20.0	16.7		ug/L		83	65 - 127
1,2,4-Trichlorobenzene	20.0	19.7		ug/L		98	34 - 141
1,2-Dibromo-3-Chloropropane	20.0	20.7		ug/L		104	50 - 130
Ethylene Dibromide	20.0	20.7		ug/L		104	80 - 120
1,2-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	16.0		ug/L		80	68 - 133
1,2-Dichloropropane	20.0	20.3		ug/L		102	78 - 127
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
2-Butanone (MEK)	40.0	35.4		ug/L		89	43 - 149
2-Hexanone	40.0	42.0		ug/L		105	28 - 169
4-Methyl-2-pentanone (MIBK)	40.0	37.2		ug/L		93	53 - 144
Acetone	40.0	25.1		ug/L		63	35 - 131
Benzene	20.0	18.6		ug/L		93	79 - 120
Dichlorobromomethane	20.0	16.9		ug/L		84	79 - 125
Bromoform	20.0	18.9		ug/L		95	55 - 145
Bromomethane	20.0	16.3		ug/L		81	17 - 158
Carbon disulfide	20.0	18.1		ug/L		90	49 - 141
Carbon tetrachloride	20.0	15.4		ug/L		77	55 - 171
Chlorobenzene	20.0	20.4		ug/L		102	80 - 120
Chloroethane	20.0	18.7		ug/L		94	10 - 149
Chloroform	20.0	16.6		ug/L		83	80 - 120
Chloromethane	20.0	17.7		ug/L		89	59 - 124
cis-1,2-Dichloroethene	20.0	17.4		ug/L		87	77 - 120
cis-1,3-Dichloropropene	20.0	18.7		ug/L		94	75 - 120
Cyclohexane	20.0	18.6		ug/L		93	66 - 135
Chlorodibromomethane	20.0	20.0		ug/L		100	64 - 129
Dichlorodifluoromethane	20.0	17.4		ug/L		87	42 - 141
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Isopropylbenzene	20.0	18.8		ug/L		94	80 - 128
Methyl acetate	40.0	37.3		ug/L		93	63 - 137
Methyl tert-butyl ether	20.0	17.0		ug/L		85	73 - 120
Methylcyclohexane	20.0	15.7		ug/L		79	63 - 141
Methylene Chloride	20.0	16.9		ug/L		85	64 - 140
Styrene	20.0	19.8		ug/L		99	80 - 121
Tetrachloroethene	20.0	20.2		ug/L		101	80 - 122
Toluene	20.0	21.0		ug/L		105	78 - 120
trans-1,2-Dichloroethene	20.0	17.9		ug/L		89	74 - 124

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

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	20.7		ug/L		104	67 - 120
Trichloroethene	20.0	17.4		ug/L		87	76 - 124
Trichlorofluoromethane	20.0	15.2		ug/L		76	27 - 176
Vinyl chloride	20.0	18.1		ug/L		90	65 - 124
Xylenes, Total	40.0	40.2		ug/L		101	80 - 120
m-Xylene & p-Xylene	20.0	20.1		ug/L		100	80 - 120
o-Xylene	20.0	20.1		ug/L		100	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*84*		*69 - 124*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-287479/1-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25	U	100	25	ug/L		07/17/17 14:00	07/18/17 13:44	1
Manganese	5.1	U	15	5.1	ug/L		07/17/17 14:00	07/18/17 13:44	1

Lab Sample ID: LCS 240-287479/2-A
Matrix: Water
Analysis Batch: 287672

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 287479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1000	1020		ug/L		102	80 - 120
Manganese	500	494		ug/L		99	80 - 120
Calcium	50000	50000		ug/L		100	80 - 120
Magnesium	50000	49700		ug/L		99	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-287816/3
Matrix: Water
Analysis Batch: 287816

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	2.6	U	5.0	2.6	mg/L			07/18/17 17:05	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-287816/2
Matrix: Water
Analysis Batch: 287816

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			377	385		mg/L		102	86 - 123		

Lab Sample ID: 240-82390-2 DU
Matrix: Water
Analysis Batch: 287816

Client Sample ID: EW-2-END-071417
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	2.6	U		2.6	U	mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-287491/3
Matrix: Water
Analysis Batch: 287491

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.044	U	0.50	0.044	mg/L			07/18/17 11:58	1
Sulfate	0.35	U	1.0	0.35	mg/L			07/18/17 11:58	1

Lab Sample ID: LCS 240-287491/4
Matrix: Water
Analysis Batch: 287491

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			10.0	10.6		mg/L		106	90 - 110		
Sulfate			50.0	51.7		mg/L		103	90 - 110		

Lab Sample ID: 240-82390-2 MS
Matrix: Water
Analysis Batch: 287491

Client Sample ID: EW-2-END-071417
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	1.0		10.0	12.1		mg/L		110	80 - 120
Sulfate	7.2		50.0	60.3		mg/L		106	80 - 120

Lab Sample ID: 240-82390-2 MSD
Matrix: Water
Analysis Batch: 287491

Client Sample ID: EW-2-END-071417
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	1.0		10.0	11.9		mg/L		109	80 - 120	1	15
Sulfate	7.2		50.0	60.0		mg/L		106	80 - 120	1	15

Lab Sample ID: MB 240-287492/3
Matrix: Water
Analysis Batch: 287492

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.014	U	0.10	0.014	mg/L			07/18/17 11:58	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-287492/3
Matrix: Water
Analysis Batch: 287492

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.10	0.014	mg/L			07/18/17 11:58	1

Lab Sample ID: LCS 240-287492/4
Matrix: Water
Analysis Batch: 287492

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.52		mg/L		101	90 - 110
Nitrate as N	2.50	2.65		mg/L		106	90 - 110

Lab Sample ID: 240-82390-2 MS
Matrix: Water
Analysis Batch: 287492

Client Sample ID: EW-2-END-071417
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.014	U H	2.50	2.81		mg/L		112	80 - 120
Nitrate as N	1.1	H	2.50	3.79		mg/L		109	80 - 120

Lab Sample ID: 240-82390-2 MSD
Matrix: Water
Analysis Batch: 287492

Client Sample ID: EW-2-END-071417
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.014	U H	2.50	2.77		mg/L		111	80 - 120	1	15
Nitrate as N	1.1	H	2.50	3.76		mg/L		107	80 - 120	1	15

Method: SM 2520B - Salinity

Lab Sample ID: MB 180-217477/1
Matrix: Water
Analysis Batch: 217477

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.0	U	2.0	2.0	No Unit			07/19/17 06:08	1

Lab Sample ID: 240-82390-1 DU
Matrix: Water
Analysis Batch: 217477

Client Sample ID: EW-2-MID-071317
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Salinity	2.0	U	2.0	U	No Unit		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-287846/1
Matrix: Water
Analysis Batch: 287846

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			07/19/17 11:28	1

Lab Sample ID: LCS 240-287846/2
Matrix: Water
Analysis Batch: 287846

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	242	264		mg/L		109	80 - 120

Lab Sample ID: MB 240-288143/1
Matrix: Water
Analysis Batch: 288143

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7.8	U	10	7.8	mg/L			07/21/17 08:44	1

Lab Sample ID: LCS 240-288143/2
Matrix: Water
Analysis Batch: 288143

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	242	246		mg/L		102	80 - 120

GC/MS VOA

Analysis Batch: 287405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total/NA	Water	8260C	
240-82390-2	EW-2-END-071417	Total/NA	Water	8260C	
240-82390-3	TB-071417	Total/NA	Water	8260C	
MB 240-287405/7	Method Blank	Total/NA	Water	8260C	
LCS 240-287405/4	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 287479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total Recoverable	Water	3005A	
240-82390-2	EW-2-END-071417	Total Recoverable	Water	3005A	
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 287672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total Recoverable	Water	6010C	287479
240-82390-2	EW-2-END-071417	Total Recoverable	Water	6010C	287479
MB 240-287479/1-A	Method Blank	Total Recoverable	Water	6010C	287479
LCS 240-287479/2-A	Lab Control Sample	Total Recoverable	Water	6010C	287479

Analysis Batch: 287913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total Recoverable	Water	2340B-1997	
240-82390-2	EW-2-END-071417	Total Recoverable	Water	2340B-1997	

General Chemistry

Analysis Batch: 217477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total/NA	Water	SM 2520B	
240-82390-2	EW-2-END-071417	Total/NA	Water	SM 2520B	
MB 180-217477/1	Method Blank	Total/NA	Water	SM 2520B	
240-82390-1 DU	EW-2-MID-071317	Total/NA	Water	SM 2520B	

Analysis Batch: 287491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total/NA	Water	300.0	
240-82390-2	EW-2-END-071417	Total/NA	Water	300.0	
MB 240-287491/3	Method Blank	Total/NA	Water	300.0	
LCS 240-287491/4	Lab Control Sample	Total/NA	Water	300.0	
240-82390-2 MS	EW-2-END-071417	Total/NA	Water	300.0	
240-82390-2 MSD	EW-2-END-071417	Total/NA	Water	300.0	

Analysis Batch: 287492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1 - RA	EW-2-MID-071317	Total/NA	Water	300.0	
240-82390-2 - RA	EW-2-END-071417	Total/NA	Water	300.0	
MB 240-287492/3	Method Blank	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 287492 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-287492/4	Lab Control Sample	Total/NA	Water	300.0	
240-82390-2 MS	EW-2-END-071417	Total/NA	Water	300.0	
240-82390-2 MSD	EW-2-END-071417	Total/NA	Water	300.0	

Analysis Batch: 287495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-2	EW-2-END-071417	Total/NA	Water	300.0	

Analysis Batch: 287816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total/NA	Water	2320B-1997	
240-82390-2	EW-2-END-071417	Total/NA	Water	2320B-1997	
MB 240-287816/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-287816/2	Lab Control Sample	Total/NA	Water	2320B-1997	
240-82390-2 DU	EW-2-END-071417	Total/NA	Water	2320B-1997	

Analysis Batch: 287846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-1	EW-2-MID-071317	Total/NA	Water	SM 2540C	
MB 240-287846/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-287846/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 288143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82390-2	EW-2-END-071417	Total/NA	Water	SM 2540C	
MB 240-288143/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-288143/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

Client Sample ID: EW-2-MID-071317

Lab Sample ID: 240-82390-1

Date Collected: 07/13/17 16:00

Matrix: Water

Date Received: 07/15/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	287405	07/17/17 16:16	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 15:13	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	287816	07/18/17 20:53	CL	TAL CAN
Total/NA	Analysis	300.0		1	287491	07/18/17 13:41	JWW	TAL CAN
Total/NA	Analysis	300.0	RA	1	287492	07/18/17 13:41	JWW	TAL CAN
Total/NA	Analysis	SM 2520B		1	217477	07/19/17 06:08	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	287846	07/19/17 11:28	CL	TAL CAN

Client Sample ID: EW-2-END-071417

Lab Sample ID: 240-82390-2

Date Collected: 07/14/17 07:36

Matrix: Water

Date Received: 07/15/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		250	287405	07/17/17 16:39	HMB	TAL CAN
Total Recoverable	Analysis	2340B-1997		1	287913	07/19/17 16:03	KLC	TAL CAN
Total Recoverable	Prep	3005A			287479	07/17/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	6010C		1	287672	07/18/17 15:17	KLC	TAL CAN
Total/NA	Analysis	2320B-1997		1	287816	07/18/17 21:03	CL	TAL CAN
Total/NA	Analysis	300.0		1	287495	07/15/17 17:03	JWW	TAL CAN
Total/NA	Analysis	300.0		1	287491	07/18/17 14:01	JWW	TAL CAN
Total/NA	Analysis	300.0	RA	1	287492	07/18/17 14:01	JWW	TAL CAN
Total/NA	Analysis	SM 2520B		1	217477	07/19/17 06:08	CLL	TAL PIT
Total/NA	Analysis	SM 2540C		1	288143	07/21/17 08:44	MM	TAL CAN

Client Sample ID: TB-071417

Lab Sample ID: 240-82390-3

Date Collected: 07/14/17 00:00

Matrix: Water

Date Received: 07/15/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	287405	07/17/17 17:03	HMB	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-82390-1
Project/Site: MRC Block E Downgradient

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-17 *
Kansas	NELAP	7	E-10336	01-31-18
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17
Minnesota	NELAP	5	039-999-348	12-31-17
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-17 *
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-17 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18
West Virginia DEP	State Program	3	210	12-31-17
Wisconsin	State Program	5	999518190	08-31-17 *

Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
SM 2520B	Salinity	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82390-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-82390-1	EW-2-MID-071317	Water	07/13/17 16:00	07/15/17 09:40
240-82390-2	EW-2-END-071417	Water	07/14/17 07:36	07/15/17 09:40
240-82390-3	TB-071417	Water	07/14/17 00:00	07/15/17 09:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: A3UX16 Analysis Batch Number: 272263

Lab Sample ID: STD8260 240-272263/7 IC Client Sample ID:

Date Analyzed: 03/29/17 14:25 Lab File ID: UXM1389.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	11.32	Missed Peak	laveyt	03/29/17 15:11

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279524

Lab Sample ID: STD1 240-279524/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.38	Unspecified		
Sulfate	15.09	Unspecified		

Lab Sample ID: STD4 240-279524/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.37	Unspecified		
Sulfate	14.95	Unspecified		

Lab Sample ID: STD5 240-279524/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.36	Unspecified		
Sulfate	14.78	Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: THOR Analysis Batch Number: 279525

Lab Sample ID: STD1 240-279525/1 IC Client Sample ID:

Date Analyzed: 05/22/17 10:47 Lab File ID: 240-0065119-001_03_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.18	Unspecified		
Nitrate as N	11.98	Unspecified		

Lab Sample ID: STD4 240-279525/4 IC Client Sample ID:

Date Analyzed: 05/22/17 11:48 Lab File ID: 240-0065119-004_06_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.95	Unspecified		

Lab Sample ID: STD5 240-279525/5 ICRT Client Sample ID:

Date Analyzed: 05/22/17 12:09 Lab File ID: 240-0065119-005_07_CD.d GC Column: IC AS19 ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	8.17	Unspecified		
Nitrate as N	11.92	Unspecified		

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MT6500ICV_00038	12/14/17	06/14/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV1_00007	5 mL	Calcium	25000 ug/L
							Iron	12500 ug/L
							Magnesium	25000 ug/L
					MTTRICV3_00008	6 mL	Manganese	1500 ug/L
.MTTRICV1_00007	02/26/18	CPI, Lot 1095565			(Purchased Reagent)		Calcium	5000 mg/L
							Iron	2500 mg/L
							Magnesium	5000 mg/L
.MTTRICV3_00008	05/22/18	CPI, Lot 1099181			(Purchased Reagent)		Manganese	250 mg/L
MTAGSPIKEW_00075	01/11/18	07/11/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00007	2.5 mL	Ag	2500 ug/L
					MTTMHNO3_00123	50 mL	Nitric acid	50000000 ug/L
.MTAG_00007	12/08/18	HIGH PURITY STANDARDS, Lot 1713128			(Purchased Reagent)		Ag	1000 ug/mL
.MTTMHNO3_00123	06/26/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00065	09/29/17	06/24/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							As	100000 ug/L
							B	50000 ug/L
							Ba	100000 ug/L
							Be	2500 ug/L
							Cd	2500 ug/L
							Co	25000 ug/L
							Cr	10000 ug/L
							Cu	12500 ug/L
							Iron	50000 ug/L
							Manganese	25000 ug/L
							Ni	25000 ug/L
							Pb	25000 ug/L
							Se	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00119	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							As	2000 ug/mL
							B	1000 ug/mL
							Ba	2000 ug/mL
							Be	50 ug/mL
							Cd	50 ug/mL
							Co	500 ug/mL
							Cr	200 ug/mL
							Cu	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	1000 ug/mL
							Manganese	500 ug/mL
							Ni	500 ug/mL
							Pb	500 ug/mL
							Se	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00119	05/16/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00073	12/22/17	06/22/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00122	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Calcium	2500 mg/L
							K	2500 mg/L
							Magnesium	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00122	06/15/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Calcium	10000 ug/mL
							K	10000 ug/mL
							Magnesium	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00104	01/07/18	07/07/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00018	195 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
					MTICPCCV1_00019	5 mL	Calcium	50000 ug/L
							Iron	25000 ug/L
							Magnesium	50000 ug/L
							Manganese	2000 ug/L
.MTICPCCV1_00018	05/10/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
.MTICPCCV1_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Calcium	500000 ug/L
							Iron	250000 ug/L
							Magnesium	500000 ug/L
							Manganese	20000 ug/L
MTICPICSABW_00015	12/08/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							As	1000 ug/L
							B	500 ug/L
							Ba	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Be	500 ug/L
							Calcium	500000 ug/L
							Cd	1000 ug/L
							Co	500 ug/L
							Cr	500 ug/L
							Cu	500 ug/L
							Iron	200000 ug/L
							K	10000 ug/L
							Li	500 ug/L
							Magnesium	500000 ug/L
							Manganese	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Pb	1000 ug/L
							Se	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Ag	1000 ug/L
							Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							As	10000 ug/L
							B	5000 ug/L
							Ba	5000 ug/L
							Be	5000 ug/L
							Calcium	5000000 ug/L
							Cd	10000 ug/L
							Co	5000 ug/L
							Cr	5000 ug/L
							Cu	5000 ug/L
							Iron	2000000 ug/L
							K	100000 ug/L
							Li	5000 ug/L
							Magnesium	5000000 ug/L
							Manganese	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Pb	10000 ug/L
							Se	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Ag	10000 ug/L
							Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTTMHCL_00162	06/28/19	JT Baker(Avantor), Lot 0000162118			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00049	01/17/18	07/17/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Calcium	5000 ug/L
							Iron	200 ug/L
							Magnesium	5000 ug/L
							Manganese	15 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Calcium	100000 ug/L
							Iron	4000 ug/L
							Magnesium	100000 ug/L
							Manganese	300 ug/L
MTTRICSAW_00035	12/23/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00015	100 mL	Al	500000 ug/L
							Calcium	500000 ug/L
							Iron	200000 ug/L
							Magnesium	500000 ug/L
.MTTRICSA_00015	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
vm100is_stk_00031	07/17/17	01/17/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100is_stk_00033	11/24/17	05/24/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21	restek, Lot A0117358			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00025	09/14/17	03/14/17	MEOH, Lot 127999	100 mL	VM567650_00025	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00025	10/31/20	Restek, Lot A0114901			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm100ss_stk_00026	12/16/17	06/16/17	MEOH, Lot 147462	100 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00027	07/31/21		Restek, Lot A0120212		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00278	03/31/17	03/24/17	MEOH, Lot na	4 mL	vm50ss_stk_00072	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00072	06/07/17	12/07/16	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00190	03/31/17	03/27/17	MEOH, Lot na	4 mL	VMACROLSTD_00046	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00046	03/31/17	03/01/17	MEOH, Lot 0000127999	20 mL	VM568720_00018	250 uL	Acrolein	250 ug/mL
..VM568720_00018	03/31/17		restek, Lot A0122668		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASGW_00201	04/03/17	03/27/17	MEOH, Lot NA	4 mL	VMFASG_00056	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00056	04/22/17	03/22/17	MEOH, Lot 0000127999	50 mL	vm569722S_00002	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00002	05/31/18		Restek, Lot A0111273		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00218	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMFASG_00061	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VMFASG_00061	08/14/17	07/14/17	MEOH, Lot +181520000147462JF	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18	Restek, Lot A0113063			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00196	03/29/17	03/22/17	MEOH, Lot n/a	4 mL	VMRFASP_00036	4 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
.VMRFASP_00036	04/30/17	01/25/17	MEOH, Lot 0000127999	100 mL	VM569720S_00004	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
..VM569720S_00004	07/31/18		Restek, Lot A0120604		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
VMFASPW_00211	07/24/17	07/17/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00001	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmrgas_00194	04/04/17	03/28/17	MEOH, Lot 0000127999	10 mL	vm569722_00007	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00007	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00208	07/24/17	07/17/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00229	03/29/17	03/22/17	MEOH, Lot NA	4 mL	VMRPRIM_00021	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00021	05/31/17	01/31/17	MEOH, Lot 0000127999	50 mL	VM569720_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00001	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00009	0.5 mL	Vinyl acetate	50 ug/mL
..VM569720_00003	03/31/18		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00001	01/31/18		restek, Lot A0108172		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00009	05/31/17		Restek, Lot A0123104		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00244	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00001	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
WCICCALSOLN_00283	06/16/17	05/16/17	ELUENT, Lot 1847588	20 mL	WCICSOLNA1_00016	1.6 mL	Bromide	40 mg/L
							Chloride	200 mg/L
							Fluoride	10 mg/L
							Nitrate as N	10 mg/L
							Sulfate	200 mg/L
					WCICSOLNB1_00015	1.6 mL	Nitrite as N	10 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICCCV_00776	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA1_00016	1 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB1_00015	1 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
.WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCICLCS_00614	07/19/17	07/12/17	MOHMWATER, Lot 070517	50 mL	WCICSOLNA2_00017	5 mL	Bromide	10 mg/L
							Nitrate as N	2.5 mg/L
							Sulfate	50 mg/L
					WCICSOLNB2_00017	5 mL	Nitrite as N	2.5 mg/L
.WCICSOLNA2_00017	11/30/17	High Purity Standards, Lot 1632824			(Purchased Reagent)		Bromide	100 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
.WCICSOLNB2_00017	11/30/17	High Purity Standards, Lot 1632825			(Purchased Reagent)		Nitrite as N	25 ug/mL
WCICSOLNA1_00016	11/29/19	Inorganic Ventures, Lot K2-MEB653716			(Purchased Reagent)		Bromide	500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
WCICSOLNB1_00015	11/29/19	Inorganic Ventures, Lot H2-MEB653717			(Purchased Reagent)		Nitrite as N	125 ug/mL
WCPHENOMINER_00017	07/31/19	PHENOVA-WIBBY, Lot 869-08			(Purchased Reagent)		Alkalinity	377 mg/L
WCPHENOVSOLID_00022	07/31/19	PHENOVA- WIBBY, Lot 8169-09			(Purchased Reagent)		Total Dissolved Solids	242 mg/L

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
EW-2-MID-071317	240-82390-1	85	79	105	92
EW-2-END-071417	240-82390-2	84	79	103	89
TB-071417	240-82390-3	84	78	103	89
	MB 240-287405/7	82	78	102	92
	LCS 240-287405/4	84	79	107	97
	240-82240-B-2 MS	84	80	108	97
	240-82240-B-2 MSD	86	80	111	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	16.0	80	64-147	
1,1,2,2-Tetrachloroethane	20.0	22.7	114	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7	89	65-144	
1,1,2-Trichloroethane	20.0	21.8	109	76-121	
1,1-Dichloroethane	20.0	18.5	92	74-120	
1,1-Dichloroethene	20.0	16.7	83	65-127	
1,2,4-Trichlorobenzene	20.0	19.7	98	34-141	
1,2-Dibromo-3-Chloropropane	20.0	20.7	104	50-130	
Ethylene Dibromide	20.0	20.7	104	80-120	
1,2-Dichlorobenzene	20.0	20.7	104	80-120	
1,2-Dichloroethane	20.0	16.0	80	68-133	
1,2-Dichloropropane	20.0	20.3	102	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	19.9	99	80-120	
2-Butanone (MEK)	40.0	35.4	89	43-149	
2-Hexanone	40.0	42.0	105	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	37.2	93	53-144	
Acetone	40.0	25.1	63	35-131	
Benzene	20.0	18.6	93	79-120	
Dichlorobromomethane	20.0	16.9	84	79-125	
Bromoform	20.0	18.9	95	55-145	
Bromomethane	20.0	16.3	81	17-158	
Carbon disulfide	20.0	18.1	90	49-141	
Carbon tetrachloride	20.0	15.4	77	55-171	
Chlorobenzene	20.0	20.4	102	80-120	
Chloroethane	20.0	18.7	94	10-149	
Chloroform	20.0	16.6	83	80-120	
Chloromethane	20.0	17.7	89	59-124	
cis-1,2-Dichloroethene	20.0	17.4	87	77-120	
cis-1,3-Dichloropropene	20.0	18.7	94	75-120	
Cyclohexane	20.0	18.6	93	66-135	
Chlorodibromomethane	20.0	20.0	100	64-129	
Dichlorodifluoromethane	20.0	17.4	87	42-141	
Ethylbenzene	20.0	20.5	103	80-120	
Isopropylbenzene	20.0	18.8	94	80-128	
Methyl acetate	40.0	37.3	93	63-137	
Methyl tert-butyl ether	20.0	17.0	85	73-120	
Methylcyclohexane	20.0	15.7	79	63-141	
Methylene Chloride	20.0	16.9	85	64-140	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	20.2	101	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	21.0	105	78-120	
trans-1,2-Dichloroethene	20.0	17.9	89	74-124	
trans-1,3-Dichloropropene	20.0	20.7	104	67-120	
Trichloroethene	20.0	17.4	87	76-124	
Trichlorofluoromethane	20.0	15.2	76	27-176	
Vinyl chloride	20.0	18.1	90	65-124	
Xylenes, Total	40.0	40.2	101	80-120	
m-Xylene & p-Xylene	20.0	20.1	100	80-120	
o-Xylene	20.0	20.1	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	120 U	7930	79	57-156	
1,1,2,2-Tetrachloroethane	10000	160 U	11400	114	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	210 U	9490	95	58-137	
1,1,2-Trichloroethane	10000	170 U	10600	106	68-127	
1,1-Dichloroethane	10000	130 U	8780	88	69-122	
1,1-Dichloroethene	10000	140 U	8500	85	62-127	
1,2,4-Trichlorobenzene	10000	140 U	9080	91	26-138	
1,2-Dibromo-3-Chloropropane	10000	240 U	9730	97	48-130	
Ethylene Dibromide	10000	120 U	10100	101	73-121	
1,2-Dichlorobenzene	10000	130 U	9840	98	70-120	
1,2-Dichloroethane	10000	150 U	7590	76	64-138	
1,2-Dichloropropane	10000	150 U	9870	99	72-131	
1,3-Dichlorobenzene	10000	160 U	9590	96	71-120	
1,4-Dichlorobenzene	10000	120 U	9660	97	72-120	
2-Butanone (MEK)	20000	510 U	17000	85	34-153	
2-Hexanone	20000	620 U	19400	97	21-184	
4-Methyl-2-pentanone (MIBK)	20000	360 U	17700	88	53-147	
Acetone	20000	880 U	12000	60	19-133	
Benzene	10000	140 U	8940	89	69-127	
Dichlorobromomethane	10000	150 U	8080	81	75-128	
Bromoform	10000	220 U	8700	87	61-135	
Bromomethane	10000	210 U	7330	73	10-148	
Carbon disulfide	10000	170 U	8740	87	46-143	
Carbon tetrachloride	10000	180 U	7820	78	53-175	
Chlorobenzene	10000	160 U	9740	97	76-120	
Chloroethane	10000	210 U	8950	90	10-141	
Chloroform	10000	160 U	7910	79	74-125	
Chloromethane	10000	220 U	8350	83	34-127	
cis-1,2-Dichloroethene	10000	150 U	8530	85	69-127	
cis-1,3-Dichloropropene	10000	130 U	8820	88	68-120	
Cyclohexane	10000	220 U	10000	100	56-135	
Chlorodibromomethane	10000	130 U	9360	94	62-131	
Dichlorodifluoromethane	10000	250 U	9180	92	45-130	
Ethylbenzene	10000	130 U	9930	99	72-121	
Isopropylbenzene	10000	110 U	9120	91	70-132	
Methyl acetate	20000	720 U	18300	92	52-139	
Methyl tert-butyl ether	10000	140 U	7970	80	67-125	
Methylcyclohexane	10000	230 U	8860	89	46-139	
Methylene Chloride	10000	270 U	8150	82	52-137	
Styrene	10000	120 U	9490	95	74-125	
Tetrachloroethene	10000	150 U	10600	106	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	10000	120 U	10100	101	69-125	
trans-1,2-Dichloroethene	10000	150 U	8730	87	66-131	
trans-1,3-Dichloropropene	10000	160 U	9640	96	59-120	
Trichloroethene	10000	21000	29200	80	68-129	
Trichlorofluoromethane	10000	250 U	7610	76	28-172	
Vinyl chloride	10000	230 U	9020	90	55-123	
Xylenes, Total	20000	120 U	19300	97	71-122	
m-Xylene & p-Xylene	10000	120 U	9830	98	70-121	
o-Xylene	10000	140 U	9480	95	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	8510	85	7	13	57-156	
1,1,2,2-Tetrachloroethane	10000	11800	118	4	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	8840	88	7	35	58-137	
1,1,2-Trichloroethane	10000	11600	116	9	11	68-127	
1,1-Dichloroethane	10000	9470	95	8	11	69-122	
1,1-Dichloroethene	10000	8840	88	4	14	62-127	
1,2,4-Trichlorobenzene	10000	9860	99	8	35	26-138	
1,2-Dibromo-3-Chloropropane	10000	10100	101	4	31	48-130	
Ethylene Dibromide	10000	10700	107	7	12	73-121	
1,2-Dichlorobenzene	10000	10700	107	9	19	70-120	
1,2-Dichloroethane	10000	8180	82	8	11	64-138	
1,2-Dichloropropane	10000	10500	105	6	12	72-131	
1,3-Dichlorobenzene	10000	10400	104	8	18	71-120	
1,4-Dichlorobenzene	10000	10300	103	6	17	72-120	
2-Butanone (MEK)	20000	17600	88	4	23	34-153	
2-Hexanone	20000	20700	103	6	12	21-184	
4-Methyl-2-pentanone (MIBK)	20000	18800	94	6	16	53-147	
Acetone	20000	12500	63	4	35	19-133	
Benzene	10000	9760	98	9	10	69-127	
Dichlorobromomethane	10000	8560	86	6	13	75-128	
Bromoform	10000	9520	95	9	13	61-135	
Bromomethane	10000	8200	82	11	35	10-148	
Carbon disulfide	10000	9270	93	6	18	46-143	
Carbon tetrachloride	10000	8100	81	4	17	53-175	
Chlorobenzene	10000	10800	108	10	12	76-120	
Chloroethane	10000	9350	93	4	35	10-141	
Chloroform	10000	8480	85	7	11	74-125	
Chloromethane	10000	9000	90	8	25	34-127	
cis-1,2-Dichloroethene	10000	9080	91	6	11	69-127	
cis-1,3-Dichloropropene	10000	9520	95	8	13	68-120	
Cyclohexane	10000	9470	95	6	35	56-135	
Chlorodibromomethane	10000	10100	101	8	15	62-131	
Dichlorodifluoromethane	10000	8310	83	10	34	45-130	
Ethylbenzene	10000	10800	108	8	15	72-121	
Isopropylbenzene	10000	9970	100	9	16	70-132	
Methyl acetate	20000	19000	95	4	14	52-139	
Methyl tert-butyl ether	10000	8550	85	7	12	67-125	
Methylcyclohexane	10000	7760	78	13	35	46-139	
Methylene Chloride	10000	8830	88	8	12	52-137	
Styrene	10000	10500	105	10	14	74-125	
Tetrachloroethene	10000	10900	109	3	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	10000	11100	111	9	14	69-125	
trans-1,2-Dichloroethene	10000	9280	93	6	11	66-131	
trans-1,3-Dichloropropene	10000	10500	105	8	14	59-120	
Trichloroethene	10000	30400	92	4	12	68-129	E
Trichlorofluoromethane	10000	7590	76	0	26	28-172	
Vinyl chloride	10000	9380	94	4	12	55-123	
Xylenes, Total	20000	21100	106	9	14	71-122	
m-Xylene & p-Xylene	10000	10700	107	8	15	70-121	
o-Xylene	10000	10400	104	9	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab File ID: UXM4616.D Lab Sample ID: MB 240-287405/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/17/2017 10:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-287405/4	UXM4613.D	07/17/2017 09:34
	240-82240-B-2 MS	UXM4625.D	07/17/2017 14:43
	240-82240-B-2 MSD	UXM4626.D	07/17/2017 15:06
EW-2-MID-071317	240-82390-1	UXM4629.D	07/17/2017 16:16
EW-2-END-071417	240-82390-2	UXM4630.D	07/17/2017 16:39
TB-071417	240-82390-3	UXM4631.D	07/17/2017 17:03

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272263/21	UXM1403.D	03/29/2017	19:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab File ID: BFB5335.D BFB Injection Date: 07/17/2017

Instrument ID: A3UX16 BFB Injection Time: 08:29

Analysis Batch No.: 287405

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.8	
75	30.0 - 60.0 % of mass 95	44.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.9) 1
174	50.0 - 120.00 % of mass 95	74.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.2) 1
176	95.0 - 101.0 % of mass 174	72.5	(97.5) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-287405/3	UXM4612.D	07/17/2017	09:11
	LCS 240-287405/4	UXM4613.D	07/17/2017	09:34
	CCV 240-287405/5	UXM4614.D	07/17/2017	09:57
	MB 240-287405/7	UXM4616.D	07/17/2017	10:44
	240-82240-B-2 MS	UXM4625.D	07/17/2017	14:43
	240-82240-B-2 MSD	UXM4626.D	07/17/2017	15:06
EW-2-MID-071317	240-82390-1	UXM4629.D	07/17/2017	16:16
EW-2-END-071417	240-82390-2	UXM4630.D	07/17/2017	16:39
TB-071417	240-82390-3	UXM4631.D	07/17/2017	17:03

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272263/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-287405/3		1020980	5.25	740336	7.93	404752	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Sample No.: CCVIS 240-287405/3 Date Analyzed: 07/17/2017 09:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4612.D Heated Purge: (Y/N) N

Calibration ID: 40354

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1020980	5.25	740336	7.93	404752	10.16
UPPER LIMIT		2041960	5.75	1480672	8.43	809504	10.66
LOWER LIMIT		510490	4.75	370168	7.43	202376	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-287405/4		933741	5.24	673259	7.92	360406	10.16
CCV 240-287405/5		918148	5.24	672494	7.92	342833	10.16
MB 240-287405/7		869619	5.24	648874	7.92	326285	10.16
240-82240-B-2 MS		850245	5.24	623578	7.92	326761	10.16
240-82240-B-2 MSD		849700	5.24	615547	7.92	333076	10.16
240-82390-1	EW-2-MID-071317	809636	5.24	610114	7.92	303909	10.16
240-82390-2	EW-2-END-071417	816612	5.25	610822	7.92	301241	10.16
240-82390-3	TB-071417	813695	5.24	606421	7.92	300570	10.16

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: EW-2-MID-071317 | Lab Sample ID: 240-82390-1

Matrix: Water | Lab File ID: UXM4629.D

Analysis Method: 8260C | Date Collected: 07/13/2017 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 16:16

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	29	U	130	29
79-34-5	1,1,2,2-Tetrachloroethane	40	U	130	40
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	51	U	130	51
79-00-5	1,1,2-Trichloroethane	43	U	130	43
75-34-3	1,1-Dichloroethane	31	U	130	31
75-35-4	1,1-Dichloroethene	34	U	130	34
120-82-1	1,2,4-Trichlorobenzene	34	U	130	34
96-12-8	1,2-Dibromo-3-Chloropropane	59	U	250	59
106-93-4	Ethylene Dibromide	29	U	130	29
95-50-1	1,2-Dichlorobenzene	33	U	130	33
107-06-2	1,2-Dichloroethane	38	U	130	38
78-87-5	1,2-Dichloropropane	38	U	130	38
541-73-1	1,3-Dichlorobenzene	40	U	130	40
106-46-7	1,4-Dichlorobenzene	29	U	130	29
78-93-3	2-Butanone (MEK)	130	U	1300	130
591-78-6	2-Hexanone	150	U	1300	150
108-10-1	4-Methyl-2-pentanone (MIBK)	89	U	1300	89
67-64-1	Acetone	220	U	1300	220
71-43-2	Benzene	35	U	130	35
75-27-4	Dichlorobromomethane	38	U	130	38
75-25-2	Bromoform	54	U	130	54
74-83-9	Bromomethane	53	U	130	53
75-15-0	Carbon disulfide	43	U	130	43
56-23-5	Carbon tetrachloride	44	U	130	44
108-90-7	Chlorobenzene	40	U	130	40
75-00-3	Chloroethane	51	U	130	51
67-66-3	Chloroform	39	U	130	39
74-87-3	Chloromethane	54	U	130	54
156-59-2	cis-1,2-Dichloroethene	38	U	130	38
10061-01-5	cis-1,3-Dichloropropene	33	U	130	33
110-82-7	Cyclohexane	55	U	130	55
124-48-1	Chlorodibromomethane	31	U	130	31
75-71-8	Dichlorodifluoromethane	63	U	130	63
100-41-4	Ethylbenzene	33	U	130	33
98-82-8	Isopropylbenzene	26	U	130	26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: EW-2-MID-071317 | Lab Sample ID: 240-82390-1

Matrix: Water | Lab File ID: UXM4629.D

Analysis Method: 8260C | Date Collected: 07/13/2017 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 16:16

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	180	U	1300	180
1634-04-4	Methyl tert-butyl ether	34	U	130	34
108-87-2	Methylcyclohexane	56	U	130	56
75-09-2	Methylene Chloride	66	U	130	66
100-42-5	Styrene	29	U	130	29
127-18-4	Tetrachloroethene	38	U	130	38
108-88-3	Toluene	29	U	130	29
156-60-5	trans-1,2-Dichloroethene	36	U	130	36
10061-02-6	trans-1,3-Dichloropropene	39	U	130	39
79-01-6	Trichloroethene	3900		130	41
75-69-4	Trichlorofluoromethane	63	U	130	63
75-01-4	Vinyl chloride	56	U	130	56
1330-20-7	Xylenes, Total	30	U	250	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: EW-2-END-071417 | Lab Sample ID: 240-82390-2

Matrix: Water | Lab File ID: UXM4630.D

Analysis Method: 8260C | Date Collected: 07/14/2017 07:36

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 16:39

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	58	U	250	58
79-34-5	1,1,2,2-Tetrachloroethane	80	U	250	80
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	100	U	250	100
79-00-5	1,1,2-Trichloroethane	85	U	250	85
75-34-3	1,1-Dichloroethane	63	U	250	63
75-35-4	1,1-Dichloroethene	68	U	250	68
120-82-1	1,2,4-Trichlorobenzene	68	U	250	68
96-12-8	1,2-Dibromo-3-Chloropropane	120	U	500	120
106-93-4	Ethylene Dibromide	58	U	250	58
95-50-1	1,2-Dichlorobenzene	65	U	250	65
107-06-2	1,2-Dichloroethane	75	U	250	75
78-87-5	1,2-Dichloropropane	75	U	250	75
541-73-1	1,3-Dichlorobenzene	80	U	250	80
106-46-7	1,4-Dichlorobenzene	58	U	250	58
78-93-3	2-Butanone (MEK)	260	U	2500	260
591-78-6	2-Hexanone	310	U	2500	310
108-10-1	4-Methyl-2-pentanone (MIBK)	180	U	2500	180
67-64-1	Acetone	440	U	2500	440
71-43-2	Benzene	70	U	250	70
75-27-4	Dichlorobromomethane	75	U	250	75
75-25-2	Bromoform	110	U	250	110
74-83-9	Bromomethane	110	U	250	110
75-15-0	Carbon disulfide	85	U	250	85
56-23-5	Carbon tetrachloride	88	U	250	88
108-90-7	Chlorobenzene	80	U	250	80
75-00-3	Chloroethane	100	U	250	100
67-66-3	Chloroform	78	U	250	78
74-87-3	Chloromethane	110	U	250	110
156-59-2	cis-1,2-Dichloroethene	75	U	250	75
10061-01-5	cis-1,3-Dichloropropene	65	U	250	65
110-82-7	Cyclohexane	110	U	250	110
124-48-1	Chlorodibromomethane	63	U	250	63
75-71-8	Dichlorodifluoromethane	130	U	250	130
100-41-4	Ethylbenzene	65	U	250	65
98-82-8	Isopropylbenzene	53	U	250	53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: EW-2-END-071417 | Lab Sample ID: 240-82390-2

Matrix: Water | Lab File ID: UXM4630.D

Analysis Method: 8260C | Date Collected: 07/14/2017 07:36

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 16:39

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	360	U	2500	360
1634-04-4	Methyl tert-butyl ether	68	U	250	68
108-87-2	Methylcyclohexane	110	U	250	110
75-09-2	Methylene Chloride	130	U	250	130
100-42-5	Styrene	58	U	250	58
127-18-4	Tetrachloroethene	75	U	250	75
108-88-3	Toluene	58	U	250	58
156-60-5	trans-1,2-Dichloroethene	73	U	250	73
10061-02-6	trans-1,3-Dichloropropene	78	U	250	78
79-01-6	Trichloroethene	5800		250	83
75-69-4	Trichlorofluoromethane	130	U	250	130
75-01-4	Vinyl chloride	110	U	250	110
1330-20-7	Xylenes, Total	60	U	500	60

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: TB-071417 | Lab Sample ID: 240-82390-3

Matrix: Water | Lab File ID: UXM4631.D

Analysis Method: 8260C | Date Collected: 07/14/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.0	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: TB-071417 | Lab Sample ID: 240-82390-3

Matrix: Water | Lab File ID: UXM4631.D

Analysis Method: 8260C | Date Collected: 07/14/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		61-138

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82390-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Isopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Lin1		0.2305		0.0379	0.0400	-5.3	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2277	0.1000	0.0144	0.0200	-28.1*	20.0
Chloromethane	Ave	0.3878	0.3195	0.1000	0.0165	0.0200	-17.6	20.0
Vinyl chloride	Ave	0.3718	0.3167	0.1000	0.0170	0.0200	-14.8	20.0
Butadiene	Ave	0.2937	0.2954		0.0201	0.0200	0.6	20.0
Bromomethane	Ave	0.2332	0.1828	0.0500	0.0157	0.0200	-21.6*	20.0
Chloroethane	Ave	0.2186	0.1954	0.0500	0.0179	0.0200	-10.6	20.0
Dichlorofluoromethane	Ave	0.5919	0.4334		0.0146	0.0200	-26.8*	20.0
Trichlorofluoromethane	Ave	0.4159	0.2825	0.1000	0.0136	0.0200	-32.1*	20.0
Ethyl ether	Ave	0.2501	0.2093		0.0167	0.0200	-16.3	20.0
Acrolein	Ave	0.0337	0.0199		0.0590	0.100	-41.0	50.0
1,1-Dichloroethene	Ave	0.2878	0.2354	0.1000	0.0164	0.0200	-18.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1577	0.0500	0.0178	0.0200	-10.8	20.0
Acetone	Lin1		0.0674	0.0100	0.0311	0.0400	-22.4	50.0
Iodomethane	Ave	0.4621	0.3782		0.0164	0.0200	-18.2	20.0
Carbon disulfide	Ave	0.9514	0.8772	0.1000	0.0184	0.0200	-7.8	20.0
3-Chloro-1-propene	Ave	0.2013	0.1806		0.0179	0.0200	-10.3	20.0
Methyl acetate	Ave	0.1624	0.1475	0.1000	0.0363	0.0400	-9.1	20.0
Methylene Chloride	Lin1		0.2901	0.1000	0.0171	0.0200	-14.5	50.0
2-Methyl-2-propanol	Lin1		0.0167		0.171	0.200	-14.5	50.0
Acrylonitrile	Ave	0.0864	0.0800		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2756	0.1000	0.0174	0.0200	-12.8	20.0
Methyl tert-butyl ether	Ave	0.8308	0.6762	0.1000	0.0163	0.0200	-18.6	20.0
Hexane	Ave	0.2897	0.2779		0.0192	0.0200	-4.1	20.0
1,1-Dichloroethane	Ave	0.5224	0.4698	0.2000	0.0180	0.0200	-10.1	20.0
Vinyl acetate	Ave	0.4093	0.4313		0.0211	0.0200	5.4	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3009	0.1000	0.0171	0.0200	-14.5	20.0
2,2-Dichloropropane	Ave	0.3598	0.2959		0.0164	0.0200	-17.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0839	0.0100	0.0339	0.0400	-15.2	20.0
Chlorobromomethane	Ave	0.1468	0.1285		0.0175	0.0200	-12.4	20.0
Tetrahydrofuran	Ave	0.0577	0.0592		0.0410	0.0400	2.6	20.0
Chloroform	Ave	0.5317	0.4281	0.2000	0.0161	0.0200	-19.5	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3429	0.1000	0.0157	0.0200	-21.5*	20.0
Cyclohexane	Ave	0.4257	0.3891	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3946	0.3674		0.0186	0.0200	-6.9	20.0
Carbon tetrachloride	Ave	0.3605	0.2849	0.1000	0.0158	0.0200	-21.0*	20.0
Isobutyl alcohol	Ave	0.0063	0.0056		0.442	0.500	-11.6	20.0
1,2-Dichloroethane	Ave	0.3955	0.3096	0.1000	0.0157	0.0200	-21.7*	20.0
Benzene	Ave	1.238	1.122	0.5000	0.0181	0.0200	-9.4	20.0
n-Heptane	Lin1		0.1355		0.0173	0.0200	-13.6	20.0
Trichloroethene	Ave	0.3129	0.2821	0.1500	0.0180	0.0200	-9.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3189	0.1000	0.0160	0.0200	-20.1*	20.0
1,2-Dichloropropane	Ave	0.2764	0.2660	0.1000	0.0193	0.0200	-3.7	20.0
Dibromomethane	Ave	0.1648	0.1397		0.0170	0.0200	-15.2	20.0
1,4-Dioxane	Ave	0.0024	0.0022		0.369	0.400	-7.8	50.0
Dichlorobromomethane	Ave	0.3799	0.3202	0.1500	0.0169	0.0200	-15.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1393		0.0395	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4079	0.1500	0.0178	0.0200	-10.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1797	0.0500	0.0352	0.0400	-12.0	20.0
Toluene	Ave	1.523	1.555	0.4000	0.0204	0.0200	2.1	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4758	0.1000	0.0204	0.0200	2.2	20.0
Ethyl methacrylate	Ave	0.3726	0.4082		0.0219	0.0200	9.5	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2760	0.1000	0.0208	0.0200	4.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.5085		0.0213	0.0200	6.4	20.0
Tetrachloroethene	Ave	0.2566	0.2600	0.1500	0.0203	0.0200	1.3	20.0
2-Hexanone	Ave	0.1699	0.1645	0.0500	0.0387	0.0400	-3.2	20.0
Chlorodibromomethane	Ave	0.3007	0.2910		0.0194	0.0200	-3.2	20.0
Ethylene Dibromide	Ave	0.2584	0.2614		0.0202	0.0200	1.2	20.0
Chlorobenzene	Ave	0.9683	0.9939	0.3000	0.0205	0.0200	2.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3110		0.0185	0.0200	-7.4	20.0
Ethylbenzene	Ave	0.5186	0.5242		0.0202	0.0200	1.1	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6419		0.0196	0.0200	-2.2	20.0
o-Xylene	Ave	0.6658	0.6429		0.0193	0.0200	-3.4	20.0
Styrene	Ave	1.131	1.112	0.3000	0.0197	0.0200	-1.7	20.0
Bromoform	Ave	0.1830	0.1715	0.1000	0.0187	0.0200	-6.3	20.0
Isopropylbenzene	Ave	1.648	1.493	0.1000	0.0181	0.0200	-9.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6198	0.3000	0.0213	0.0200	6.6	20.0
Bromobenzene	Ave	0.6921	0.6873		0.0199	0.0200	-0.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1856		0.0207	0.0200	3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1632		0.0202	0.0200	0.8	20.0
N-Propylbenzene	Ave	0.7108	0.7363		0.0207	0.0200	3.6	20.0
2-Chlorotoluene	Ave	0.6372	0.6556		0.0206	0.0200	2.9	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.228		0.0198	0.0200	-1.0	20.0
4-Chlorotoluene	Ave	0.6808	0.7235		0.0213	0.0200	6.3	20.0
tert-Butylbenzene	Ave	1.832	1.846		0.0202	0.0200	0.8	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.382		0.0199	0.0200	-0.6	20.0
sec-Butylbenzene	Ave	2.517	2.390		0.0190	0.0200	-5.0	20.0
1,3-Dichlorobenzene	Ave	1.358	1.325	0.6000	0.0195	0.0200	-2.4	20.0
4-Isopropyltoluene	Ave	2.194	2.096		0.0191	0.0200	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.421	1.351	0.5000	0.0190	0.0200	-5.0	20.0
n-Butylbenzene	Ave	1.821	1.710		0.0188	0.0200	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.283	1.246	0.4000	0.0194	0.0200	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0983	0.0500	0.0190	0.0200	-4.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6331	0.2000	0.0193	0.0200	-3.5	50.0
Hexachlorobutadiene	Ave	0.2651	0.2148		0.0162	0.0200	-19.0	20.0
Naphthalene	Ave	1.583	1.511		0.0191	0.0200	-4.5	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5357		0.0197	0.0200	-1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2283		0.0172	0.0200	-14.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2589		0.0160	0.0200	-20.0	20.0
Toluene-d8 (Surr)	Ave	1.277	1.322		0.0207	0.0200	3.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4924		0.0196	0.0200	-1.9	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	16.0		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	22.7		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17.7		1.0	0.41
79-00-5	1,1,2-Trichloroethane	21.8		1.0	0.34
75-34-3	1,1-Dichloroethane	18.5		1.0	0.25
75-35-4	1,1-Dichloroethene	16.7		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	19.7		1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	20.7		2.0	0.47
106-93-4	Ethylene Dibromide	20.7		1.0	0.23
95-50-1	1,2-Dichlorobenzene	20.7		1.0	0.26
107-06-2	1,2-Dichloroethane	16.0		1.0	0.30
78-87-5	1,2-Dichloropropane	20.3		1.0	0.30
541-73-1	1,3-Dichlorobenzene	20.0		1.0	0.32
106-46-7	1,4-Dichlorobenzene	19.9		1.0	0.23
78-93-3	2-Butanone (MEK)	35.4		10	1.0
591-78-6	2-Hexanone	42.0		10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	37.2		10	0.71
67-64-1	Acetone	25.1		10	1.8
71-43-2	Benzene	18.6		1.0	0.28
75-27-4	Dichlorobromomethane	16.9		1.0	0.30
75-25-2	Bromoform	18.9		1.0	0.43
74-83-9	Bromomethane	16.3		1.0	0.42
75-15-0	Carbon disulfide	18.1		1.0	0.34
56-23-5	Carbon tetrachloride	15.4		1.0	0.35
108-90-7	Chlorobenzene	20.4		1.0	0.32
75-00-3	Chloroethane	18.7		1.0	0.41
67-66-3	Chloroform	16.6		1.0	0.31
74-87-3	Chloromethane	17.7		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	17.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	18.7		1.0	0.26
110-82-7	Cyclohexane	18.6		1.0	0.44
124-48-1	Chlorodibromomethane	20.0		1.0	0.25
75-71-8	Dichlorodifluoromethane	17.4		1.0	0.50
100-41-4	Ethylbenzene	20.5		1.0	0.26
98-82-8	Isopropylbenzene	18.8		1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	37.3		10	1.4
1634-04-4	Methyl tert-butyl ether	17.0		1.0	0.27
108-87-2	Methylcyclohexane	15.7		1.0	0.45
75-09-2	Methylene Chloride	16.9		1.0	0.53
100-42-5	Styrene	19.8		1.0	0.23
127-18-4	Tetrachloroethene	20.2		1.0	0.30
108-88-3	Toluene	21.0		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	17.9		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	20.7		1.0	0.31
79-01-6	Trichloroethene	17.4		1.0	0.33
75-69-4	Trichlorofluoromethane	15.2		1.0	0.50
75-01-4	Vinyl chloride	18.1		1.0	0.45
1330-20-7	Xylenes, Total	40.2		2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	7930		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11400		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9490		500	210
79-00-5	1,1,2-Trichloroethane	10600		500	170
75-34-3	1,1-Dichloroethane	8780		500	130
75-35-4	1,1-Dichloroethene	8500		500	140
120-82-1	1,2,4-Trichlorobenzene	9080		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	9730		1000	240
106-93-4	Ethylene Dibromide	10100		500	120
95-50-1	1,2-Dichlorobenzene	9840		500	130
107-06-2	1,2-Dichloroethane	7590		500	150
78-87-5	1,2-Dichloropropane	9870		500	150
541-73-1	1,3-Dichlorobenzene	9590		500	160
106-46-7	1,4-Dichlorobenzene	9660		500	120
78-93-3	2-Butanone (MEK)	17000		5000	510
591-78-6	2-Hexanone	19400		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	17700		5000	360
67-64-1	Acetone	12000		5000	880
71-43-2	Benzene	8940		500	140
75-27-4	Dichlorobromomethane	8080		500	150
75-25-2	Bromoform	8700		500	220
74-83-9	Bromomethane	7330		500	210
75-15-0	Carbon disulfide	8740		500	170
56-23-5	Carbon tetrachloride	7820		500	180
108-90-7	Chlorobenzene	9740		500	160
75-00-3	Chloroethane	8950		500	210
67-66-3	Chloroform	7910		500	160
74-87-3	Chloromethane	8350		500	220
156-59-2	cis-1,2-Dichloroethene	8530		500	150
10061-01-5	cis-1,3-Dichloropropene	8820		500	130
110-82-7	Cyclohexane	10000		500	220
124-48-1	Chlorodibromomethane	9360		500	130
75-71-8	Dichlorodifluoromethane	9180		500	250
100-41-4	Ethylbenzene	9930		500	130
98-82-8	Isopropylbenzene	9120		500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18300		5000	720
1634-04-4	Methyl tert-butyl ether	7970		500	140
108-87-2	Methylcyclohexane	8860		500	230
75-09-2	Methylene Chloride	8150		500	270
100-42-5	Styrene	9490		500	120
127-18-4	Tetrachloroethene	10600		500	150
108-88-3	Toluene	10100		500	120
156-60-5	trans-1,2-Dichloroethene	8730		500	150
10061-02-6	trans-1,3-Dichloropropene	9640		500	160
79-01-6	Trichloroethene	29200		500	170
75-69-4	Trichlorofluoromethane	7610		500	250
75-01-4	Vinyl chloride	9020		500	230
1330-20-7	Xylenes, Total	19300		1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	8510		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11800		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8840		500	210
79-00-5	1,1,2-Trichloroethane	11600		500	170
75-34-3	1,1-Dichloroethane	9470		500	130
75-35-4	1,1-Dichloroethene	8840		500	140
120-82-1	1,2,4-Trichlorobenzene	9860		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	10100		1000	240
106-93-4	Ethylene Dibromide	10700		500	120
95-50-1	1,2-Dichlorobenzene	10700		500	130
107-06-2	1,2-Dichloroethane	8180		500	150
78-87-5	1,2-Dichloropropane	10500		500	150
541-73-1	1,3-Dichlorobenzene	10400		500	160
106-46-7	1,4-Dichlorobenzene	10300		500	120
78-93-3	2-Butanone (MEK)	17600		5000	510
591-78-6	2-Hexanone	20700		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	18800		5000	360
67-64-1	Acetone	12500		5000	880
71-43-2	Benzene	9760		500	140
75-27-4	Dichlorobromomethane	8560		500	150
75-25-2	Bromoform	9520		500	220
74-83-9	Bromomethane	8200		500	210
75-15-0	Carbon disulfide	9270		500	170
56-23-5	Carbon tetrachloride	8100		500	180
108-90-7	Chlorobenzene	10800		500	160
75-00-3	Chloroethane	9350		500	210
67-66-3	Chloroform	8480		500	160
74-87-3	Chloromethane	9000		500	220
156-59-2	cis-1,2-Dichloroethene	9080		500	150
10061-01-5	cis-1,3-Dichloropropene	9520		500	130
110-82-7	Cyclohexane	9470		500	220
124-48-1	Chlorodibromomethane	10100		500	130
75-71-8	Dichlorodifluoromethane	8310		500	250
100-41-4	Ethylbenzene	10800		500	130
98-82-8	Isopropylbenzene	9970		500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82390-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	19000		5000	720
1634-04-4	Methyl tert-butyl ether	8550		500	140
108-87-2	Methylcyclohexane	7760		500	230
75-09-2	Methylene Chloride	8830		500	270
100-42-5	Styrene	10500		500	120
127-18-4	Tetrachloroethene	10900		500	150
108-88-3	Toluene	11100		500	120
156-60-5	trans-1,2-Dichloroethene	9280		500	150
10061-02-6	trans-1,3-Dichloropropene	10500		500	160
79-01-6	Trichloroethene	30400		500	170
75-69-4	Trichlorofluoromethane	7590		500	250
75-01-4	Vinyl chloride	9380		500	230
1330-20-7	Xylenes, Total	21100		1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1		DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1		DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1		DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1		DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1		DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1		DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/17/2017 08:29

Analysis Batch Number: 287405 End Date: 07/17/2017 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-287405/1		07/17/2017 08:29	1	BFB5335.D	DB-624 0.18(mm)
CCVIS 240-287405/3		07/17/2017 09:11	1	UXM4612.D	DB-624 0.18(mm)
LCS 240-287405/4		07/17/2017 09:34	1	UXM4613.D	DB-624 0.18(mm)
CCV 240-287405/5		07/17/2017 09:57	1	UXM4614.D	DB-624 0.18(mm)
MDLV 240-287405/6		07/17/2017 10:21	1		DB-624 0.18(mm)
MB 240-287405/7		07/17/2017 10:44	1	UXM4616.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 11:23	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 11:46	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:09	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:32	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:56	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:19	100		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:42	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 14:20	10		DB-624 0.18(mm)
240-82240-B-2 MS		07/17/2017 14:43	500	UXM4625.D	DB-624 0.18(mm)
240-82240-B-2 MSD		07/17/2017 15:06	500	UXM4626.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 15:53	1		DB-624 0.18(mm)
240-82390-1		07/17/2017 16:16	125	UXM4629.D	DB-624 0.18(mm)
240-82390-2		07/17/2017 16:39	250	UXM4630.D	DB-624 0.18(mm)
240-82390-3		07/17/2017 17:03	1	UXM4631.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:26	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:49	50		DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:12	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:35	1		DB-624 0.18(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG No.:

Project: MRC Block E Downgradient

Client Sample ID	Lab Sample ID
EW-2-MID-071317	240-82390-1
EW-2-END-071417	240-82390-2

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-2-MID-071317 Lab Sample ID: 240-82390-1

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/13/2017 16:00

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	120	100	25	ug/L			1	6010C
7439-96-5	Manganese	200	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	33	33	33	mg/L	U		1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L	U		1	2340B-1997
	Magnesium hardness as calcium carbonate	21	21	21	mg/L	U		1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EW-2-END-071417 Lab Sample ID: 240-82390-2

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/14/2017 07:36

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	460	100	25	ug/L			1	6010C
7439-96-5	Manganese	200	15	5.1	ug/L			1	6010C
	Hardness as calcium carbonate	33	33	33	mg/L	U		1	2340B-1997
	Calcium hardness as calcium carbonate	12	12	12	mg/L	U		1	2340B-1997
	Magnesium hardness as calcium carbonate	21	21	21	mg/L	U		1	2340B-1997

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICV 240-287672/4 07/18/2017 08:32				CCV 240-287672/67 07/18/2017 13:15				CCV 240-287672/79 07/18/2017 14:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24600		25000	99	50700		50000	101	49800		50000	100
Iron	12800		12500	102	25400		25000	102	25100		25000	100
Magnesium	25600		25000	102	49900		50000	100	49100		50000	98
Manganese	1520		1500	101	2050		2000	103	1990		2000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-287672/91 07/18/2017 15:00				CCV 240-287672/103 07/18/2017 15:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49600		50000	99	49200		50000	98				
Iron	24900		25000	100	24700		25000	99				
Magnesium	49000		50000	98	48400		50000	97				
Manganese	2020		2000	101	2020		2000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

ICV Source: MTTRCRIC_00049 Concentration Units: ug/L

CCV Source: MTTRCRIC_00049

Analyte	ICVL 240-287672/6 07/18/2017 08:41				CCVL 240-287672/111 07/18/2017 16:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5180		5000	104	5190		5000	104				
Iron	210		200	105	204		200	102				
Magnesium	5190		5000	104	5010		5000	100				
Manganese	15.2		15.0	101	16.4		15.0	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-287672/5 07/18/2017 08:36		CCB 240-287672/68 07/18/2017 13:19		CCB 240-287672/80 07/18/2017 14:13		CCB 240-287672/92 07/18/2017 15:04	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-287672/104 07/18/2017 15:55							
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U						
Iron	100	25	U						
Magnesium	5000	230	U						
Manganese	15	5.1	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-287479/1-A

Instrument Code: I9 Batch No.: 287672

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	25	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-95-4	Magnesium	230	U		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICSA 240-287672/8 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTTRICSAW_00035

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**471450**	**94**
Iron	**200000**	**191060**	**96**
Magnesium	**500000**	**501700**	**100**
Manganese		**2.09**	
Aluminum	*500000*	*501870*	*100*
Antimony		*-0.502*	
Arsenic		*0.889*	
Barium		*0.263*	
Beryllium		*0.303*	
Boron		*-2.74*	
Cadmium		*0.186*	
Chromium		*3.27*	
Cobalt		*0.497*	
Copper		*-5.74*	
Lead		*4.39*	
Lithium		*20.9*	
Molybdenum		*-1.89*	
Nickel		*-0.427*	
Potassium		*103*	
Selenium		*0.549*	
Silicon		*2.10*	
Silver		*-0.119*	
Sodium		*128*	
Strontium		*5.66*	
Thallium		*2.45*	
Tin		*1.28*	
Titanium		*-0.516*	
Vanadium		*-2.42*	
Zinc		*-1.09*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Lab Sample ID: ICSAB 240-287672/9 Instrument ID: I9

Lab File ID: I9071817A.asc ICS Source: MTICPICSABW_00015

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**471510**	**94**
Iron	**200000**	**189630**	**95**
Magnesium	**500000**	**502670**	**101**
Manganese	**500**	**485**	**97**
Aluminum	*500000*	*498240*	*100*
Antimony	*1000*	*994*	*99*
Arsenic	*1000*	*1019*	*102*
Barium	*500*	*493*	*99*
Beryllium	*500*	*482*	*96*
Boron	*500*	*503*	*101*
Cadmium	*1000*	*1018*	*102*
Chromium	*500*	*484*	*97*
Cobalt	*500*	*501*	*100*
Copper	*500*	*522*	*104*
Lead	*1000*	*888*	*89*
Lithium	*500*	*537*	*107*
Molybdenum	*1000*	*911*	*91*
Nickel	*1000*	*993*	*99*
Potassium	*10000*	*10434*	*104*
Selenium	*1000*	*1003*	*100*
Silicon	*10000*	*9569*	*96*
Silver	*1000*	*1066*	*107*
Sodium	*10000*	*10420*	*104*
Strontium	*1500*	*1422*	*95*
Thallium	*1000*	*947*	*95*
Tin	*500*	*508*	*102*
Titanium	*500*	*487*	*97*
Vanadium	*500*	*475*	*95*
Zinc	*1000*	*1022*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-82240-G-2-B MS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	1420		430		1000	98	75-125		6010C
Manganese	610		100		500	101	75-125		6010C
Calcium	54800		4700	J	50000	100	75-125		6010C
Magnesium	55800		6300		50000	99	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-82240-G-2-C MSD

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1430		1000	100	75-125	1	20		6010C
Manganese	606		500	101	75-125	1	20		6010C
Calcium	54800		50000	100	75-125	0	20		6010C
Magnesium	56000		50000	99	75-125	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-287479/2-A

Lab Name: TestAmerica Canton Job No.: 240-82390-1

Sample Matrix: Water LCS Source: MTICP1_00065

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	1020		102	80	120		6010C
Manganese	500	494		99	80	120		6010C
Calcium	50000	50000		100	80	120		6010C
Magnesium	50000	49700		99	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-82240-G-2-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-82390-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	430		437	J	NC		6010C
Manganese	100		106		NC		6010C
Calcium	4700	J	4630	J	NC		6010C
Magnesium	6300		6560	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron	271.441	100	25
Manganese	257.610	15	5.1

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-82390-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Iron		500000	6010C
Manganese		15000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-287479/1-A	07/17/2017 14:00	287479		50	50
LCS 240-287479/2-A	07/17/2017 14:00	287479		50	50
240-82240-G-2-B MS	07/17/2017 14:00	287479		50	50
240-82240-G-2-C MSD	07/17/2017 14:00	287479		50	50
240-82390-1	07/17/2017 14:00	287479		50	50
240-82390-2	07/17/2017 14:00	287479		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ICIS 240-287672/1	1		08:19	X	X	X	X																						
CALSTD 240-287672/2 IC			08:24	X	X	X	X																						
CALSTD 240-287672/3 IC			08:28	X	X	X	X																						
ICV 240-287672/4	1		08:32	X	X	X	X																						
ICB 240-287672/5	1		08:36		X		X																						
ICVL 240-287672/6	1		08:41	X	X	X	X																						
ZZZZZZ			08:45																										
ICSA 240-287672/8	1		08:50	X	X	X	X																						
ICSAB 240-287672/9	1		08:54	X	X	X	X																						
CCV 240-287672/10			08:58																										
CCB 240-287672/11			09:02																										
ZZZZZZ			09:06																										
ZZZZZZ			09:11																										
ZZZZZZ			09:15																										
ZZZZZZ			09:20																										
ZZZZZZ			09:24																										
ZZZZZZ			09:28																										
CCV 240-287672/18			09:33																										
CCB 240-287672/19			09:37																										
ZZZZZZ			09:52																										
ZZZZZZ			09:56																										
ZZZZZZ			10:00																										
ZZZZZZ			10:04																										
ZZZZZZ			10:08																										
ZZZZZZ			10:13																										
ZZZZZZ			10:17																										
ZZZZZZ			10:22																										
ZZZZZZ			10:26																										
ZZZZZZ			10:30																										
CCV 240-287672/30			10:34																										
CCB 240-287672/31			10:38																										
ZZZZZZ			10:43																										
ZZZZZZ			10:47																										
ZZZZZZ			10:52																										
ZZZZZZ			10:56																										
ZZZZZZ			11:00																										
ZZZZZZ			11:05																										
ZZZZZZ			11:09																										
ZZZZZZ			11:14																										
ZZZZZZ			11:18																										
ZZZZZZ			11:22																										
CCV 240-287672/42			11:27																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
CCB 240-287672/43			11:31																											
CCVL 240-287672/44			11:35																											
ZZZZZZ			11:40																											
ZZZZZZ			11:44																											
ZZZZZZ			11:49																											
ZZZZZZ			11:53																											
ZZZZZZ			11:58																											
ZZZZZZ			12:02																											
ZZZZZZ			12:07																											
ZZZZZZ			12:11																											
ZZZZZZ			12:15																											
ZZZZZZ			12:19																											
CCV 240-287672/55			12:24																											
CCB 240-287672/56			12:28																											
ZZZZZZ			12:32																											
ZZZZZZ			12:36																											
ZZZZZZ			12:41																											
ZZZZZZ			12:45																											
ZZZZZZ			12:49																											
ZZZZZZ			12:53																											
ZZZZZZ			12:58																											
ZZZZZZ			13:02																											
ZZZZZZ			13:06																											
ZZZZZZ			13:10																											
CCV 240-287672/67	1		13:15	X	X	X	X																							
CCB 240-287672/68	1		13:19		X		X																							
ZZZZZZ			13:23																											
ZZZZZZ			13:27																											
ZZZZZZ			13:31																											
ZZZZZZ			13:35																											
ZZZZZZ			13:39																											
MB 240-287479/1-A	1	R	13:44		X		X																							
LCS 240-287479/2-A	1	R	13:48	X	X	X	X																							
ZZZZZZ			13:52																											
240-82240-G-2-A SD ^5	5	R	13:56		X		X																							
ZZZZZZ			14:05																											
CCV 240-287672/79	1		14:09	X	X	X	X																							
CCB 240-287672/80	1		14:13		X		X																							
240-82240-G-2-B MS	1	R	14:17	X	X	X	X																							
240-82240-G-2-C MSD	1	R	14:21	X	X	X	X																							
ZZZZZZ			14:25																											
ZZZZZZ			14:29																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
ZZZZZZ			14:34																											
ZZZZZZ			14:38																											
ZZZZZZ			14:42																											
ZZZZZZ			14:47																											
ZZZZZZ			14:51																											
ZZZZZZ			14:56																											
CCV 240-287672/91	1		15:00	X	X	X	X																							
CCB 240-287672/92	1		15:04		X		X																							
ZZZZZZ			15:09																											
240-82390-1	1	R	15:13		X		X																							
240-82390-2	1	R	15:17		X		X																							
ZZZZZZ			15:21																											
ZZZZZZ			15:26																											
ZZZZZZ			15:30																											
ZZZZZZ			15:34																											
ZZZZZZ			15:38																											
ZZZZZZ			15:43																											
ZZZZZZ			15:47																											
CCV 240-287672/103	1		15:51	X	X	X	X																							
CCB 240-287672/104	1		15:55		X		X																							
ZZZZZZ			15:59																											
ZZZZZZ			16:04																											
ZZZZZZ			16:08																											
ZZZZZZ			16:12																											
ZZZZZZ			16:17																											
ZZZZZZ			16:21																											
CCVL 240-287672/111	1		16:25	X	X	X	X																							
ZZZZZZ			16:30																											
ZZZZZZ			16:35																											
ZZZZZZ			16:39																											
CCV 240-287672/115			16:43																											
CCB 240-287672/116			16:47																											
ZZZZZZ			16:52																											
ZZZZZZ			16:56																											
ZZZZZZ			17:00																											
ZZZZZZ			17:05																											
ZZZZZZ			17:09																											
ZZZZZZ			17:13																											
ZZZZZZ			17:18																											
ZZZZZZ			17:22																											
ZZZZZZ			17:26																											
ZZZZZZ			17:31																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/127			17:35																										
CCB 240-287672/128			17:39																										
ZZZZZZ			17:44																										
ZZZZZZ			17:48																										
ZZZZZZ			17:52																										
ZZZZZZ			17:57																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
CCV 240-287672/139			18:27																										
CCB 240-287672/140			18:31																										
ZZZZZZ			18:36																										
ZZZZZZ			18:40																										
ZZZZZZ			18:44																										
ZZZZZZ			18:49																										
ZZZZZZ			18:53																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:06																										
ZZZZZZ			19:11																										
ZZZZZZ			19:15																										
CCV 240-287672/151			19:19																										
CCB 240-287672/152			19:24																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:36																										
ZZZZZZ			19:40																										
ZZZZZZ			19:44																										
ZZZZZZ			19:48																										
ZZZZZZ			19:53																										
ZZZZZZ			19:57																										
ZZZZZZ			20:01																										
ZZZZZZ			20:06																										
CCV 240-287672/163			20:10																										
CCB 240-287672/164			20:14																										
ZZZZZZ			20:18																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
ZZZZZZ			20:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	Mg	Mn																							
ZZZZZZ			20:36																											
ZZZZZZ			20:40																											
ZZZZZZ			20:45																											
ZZZZZZ			20:49																											
ZZZZZZ			20:53																											
ZZZZZZ			20:58																											
CCV 240-287672/175			21:02																											
CCB 240-287672/176			21:06																											
ZZZZZZ			21:10																											
ZZZZZZ			21:15																											
ZZZZZZ			21:19																											
ZZZZZZ			21:23																											
ZZZZZZ			21:27																											
ZZZZZZ			21:32																											
ZZZZZZ			21:36																											
ZZZZZZ			21:40																											
ZZZZZZ			21:44																											
ZZZZZZ			21:48																											
CCV 240-287672/187			21:52																											
CCB 240-287672/188			21:56																											
ZZZZZZ			22:01																											
ZZZZZZ			22:05																											
ZZZZZZ			22:09																											
ZZZZZZ			22:13																											
ZZZZZZ			22:17																											
ZZZZZZ			22:21																											
ZZZZZZ			22:26																											
ZZZZZZ			22:30																											
ZZZZZZ			22:35																											
ZZZZZZ			22:39																											
CCV 240-287672/199			22:43																											
CCB 240-287672/200			22:47																											
ZZZZZZ			22:52																											
ZZZZZZ			22:56																											
ZZZZZZ			23:00																											
ZZZZZZ			23:05																											
ZZZZZZ			23:09																											
ZZZZZZ			23:13																											
ZZZZZZ			23:18																											
ZZZZZZ			23:22																											
ZZZZZZ			23:27																											
ZZZZZZ			23:31																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/211			23:35																										
CCB 240-287672/212			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:01																										
ZZZZZZ			00:05																										
ZZZZZZ			00:09																										
ZZZZZZ			00:14																										
ZZZZZZ			00:18																										
ZZZZZZ			00:23																										
CCV 240-287672/223			00:27																										
CCB 240-287672/224			00:31																										
ZZZZZZ			00:35																										
ZZZZZZ			00:40																										
ZZZZZZ			00:44																										
ZZZZZZ			00:48																										
ZZZZZZ			00:53																										
ZZZZZZ			00:57																										
ZZZZZZ			01:01																										
ZZZZZZ			01:06																										
ZZZZZZ			01:10																										
ZZZZZZ			01:15																										
CCV 240-287672/235			01:19																										
CCB 240-287672/236			01:23																										
ZZZZZZ			01:28																										
ZZZZZZ			01:32																										
ZZZZZZ			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:44																										
ZZZZZZ			01:48																										
ZZZZZZ			01:53																										
ZZZZZZ			01:57																										
ZZZZZZ			02:00																										
ZZZZZZ			02:05																										
CCV 240-287672/247			02:09																										
CCB 240-287672/248			02:13																										
ZZZZZZ			02:18																										
ZZZZZZ			02:22																										
ZZZZZZ			02:26																										
ZZZZZZ			02:31																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
ZZZZZZ			02:36																										
ZZZZZZ			02:40																										
ZZZZZZ			02:44																										
ZZZZZZ			02:49																										
ZZZZZZ			02:53																										
ZZZZZZ			02:58																										
CCV 240-287672/259			03:02																										
CCB 240-287672/260			03:06																										
ZZZZZZ			03:10																										
ZZZZZZ			03:15																										
ZZZZZZ			03:19																										
ZZZZZZ			03:23																										
ZZZZZZ			03:28																										
ZZZZZZ			03:33																										
ZZZZZZ			03:37																										
ZZZZZZ			03:42																										
ZZZZZZ			03:46																										
ZZZZZZ			03:50																										
CCV 240-287672/271			03:54																										
CCB 240-287672/272			03:58																										
ZZZZZZ			04:03																										
ZZZZZZ			04:07																										
ZZZZZZ			04:11																										
ZZZZZZ			04:15																										
ZZZZZZ			04:19																										
ZZZZZZ			04:24																										
ZZZZZZ			04:28																										
ZZZZZZ			04:32																										
ZZZZZZ			04:36																										
ZZZZZZ			04:41																										
CCV 240-287672/283			04:45																										
CCB 240-287672/284			04:50																										
ZZZZZZ			04:54																										
ZZZZZZ			04:58																										
ZZZZZZ			05:03																										
ZZZZZZ			05:07																										
ZZZZZZ			05:12																										
ZZZZZZ			05:16																										
ZZZZZZ			05:20																										
ZZZZZZ			05:25																										
ZZZZZZ			05:29																										
ZZZZZZ			05:33																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 07/18/2017 08:19 End Date: 07/19/2017 08:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	Mg	Mn																						
CCV 240-287672/295			05:38																										
CCB 240-287672/296			05:42																										
ZZZZZZ			05:46																										
ZZZZZZ			05:51																										
ZZZZZZ			05:55																										
ZZZZZZ			06:00																										
ZZZZZZ			06:04																										
ZZZZZZ			06:09																										
ZZZZZZ			06:14																										
ZZZZZZ			06:18																										
ZZZZZZ			06:23																										
ZZZZZZ			06:27																										
CCV 240-287672/307			06:32																										
CCB 240-287672/308			06:36																										
ZZZZZZ			06:41																										
ZZZZZZ			06:45																										
ZZZZZZ			06:50																										
ZZZZZZ			06:55																										
ZZZZZZ			06:59																										
ZZZZZZ			07:04																										
ZZZZZZ			07:08																										
ZZZZZZ			07:13																										
ZZZZZZ			07:17																										
ZZZZZZ			07:21																										
CCV 240-287672/319			07:26																										
CCB 240-287672/320			07:30																										
ZZZZZZ			07:34																										
ZZZZZZ			07:39																										
ZZZZZZ			07:43																										
ZZZZZZ			07:47																										
ZZZZZZ			07:52																										
ZZZZZZ			07:56																										
ZZZZZZ			08:00																										
ZZZZZZ			08:05																										
ZZZZZZ			08:09																										
CCV 240-287672/330			08:13																										
CCB 240-287672/331			08:18																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 07/19/2017 16:03 End Date: 07/19/2017 16:03

Lab Sample Id	D/F	Type	Time	Analytes																										
				CaCO3	HardCC	MgHARD																								
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
240-82390-1	1	R	16:03	X	X	X																								
240-82390-2	1	R	16:03	X	X	X																								
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											
ZZZZZZ			16:03																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287479 Batch Start Date: 07/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 07/17/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00075	MTICP1 00065	MTICP2A 00073	MTTMHCL 00162
MB 240-287479/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-287479/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82240-G-2 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-82390-G-1	EW-2-MID-071317	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-82390-G-2	EW-2-END-071417	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00124					
MB 240-287479/1		3005A, 6010C		1 mL					
LCS 240-287479/2		3005A, 6010C		1 mL					
240-82240-G-2 MS		3005A, 6010C	R	1 mL					
240-82240-G-2 MSD		3005A, 6010C	R	1 mL					
240-82390-G-1	EW-2-MID-071317	3005A, 6010C	R	1 mL					
240-82390-G-2	EW-2-END-071417	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB1/HB2/HB3
Pipette ID	mp1
Digestion Tube/Cup ID	1703076

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG No.:

Project: MRC Block E Downgradient

Client Sample ID	Lab Sample ID
EW-2-MID-071317	240-82390-1
EW-2-MID-071317	240-82390-1 RA
EW-2-END-071417	240-82390-2
EW-2-END-071417	240-82390-2 RA

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82390-1

SDG No.:

Project: MRC Block E Downgradient

Client Sample ID	Lab Sample ID
EW-2-MID-071317	240-82390-1
EW-2-END-071417	240-82390-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-MID-071317 Lab Sample ID: 240-82390-1

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/13/2017 16:00

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	2.6	5.0	2.6	mg/L	U		1	2320B-1997
24959-67-9	Bromide	0.79	0.50	0.044	mg/L			1	300.0
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U	H	1	300.0
14797-55-8	Nitrate as N	0.89	0.10	0.014	mg/L		H	1	300.0
14808-79-8	Sulfate	7.0	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	150	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-END-071417 Lab Sample ID: 240-82390-2

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/14/2017 07:36

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	2.6	5.0	2.6	mg/L	U		1	2320B-1997
24959-67-9	Bromide	1.0	0.50	0.044	mg/L			1	300.0
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U	H	1	300.0
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	300.0
14797-55-8	Nitrate as N	1.1	0.10	0.014	mg/L		H	1	300.0
14797-55-8	Nitrate as N	1.0	0.10	0.014	mg/L			1	300.0
14808-79-8	Sulfate	7.2	1.0	0.35	mg/L			1	300.0
	Total Dissolved Solids	130	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-MID-071317 Lab Sample ID: 240-82390-1

Lab Name: TestAmerica Pittsburgh Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/13/2017 16:00

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW-2-END-071417 Lab Sample ID: 240-82390-2

Lab Name: TestAmerica Pittsburgh Job No.: 240-82390-1

SDG ID.:

Matrix: Water Date Sampled: 07/14/2017 07:36

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Salinity	2.0	2.0	2.0	No Unit	U		1	SM 2520B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Analyst: JWW Batch Start Date: 07/18/2017

Reporting Units: mg/L Analytical Batch No.: 287491

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:17	Bromide	10.4	10.0	104	90-110		WCICCCV_00776
			Sulfate	51.0	50.0	102	90-110		WCICCCV_00776
2	CCB	11:37	Bromide	0.044				U	
			Sulfate	0.35				U	
12	CCV	15:03	Bromide	10.4	10.0	104	90-110		WCICCCV_00776
			Sulfate	51.0	50.0	102	90-110		WCICCCV_00776
13	CCB	15:24	Bromide	0.044				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Analyst: JWW Batch Start Date: 07/18/2017

Reporting Units: mg/L Analytical Batch No.: 287492

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:17	Nitrite as N	2.57	2.50	103	90-110		WCICCCV_00776
			Nitrate as N	2.59	2.50	104	90-110		WCICCCV_00776
2	CCB	11:37	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
12	CCV	15:03	Nitrite as N	2.55	2.50	102	90-110		WCICCCV_00776
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00776
13	CCB	15:24	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Analyst: JWW Batch Start Date: 07/15/2017

Reporting Units: mg/L Analytical Batch No.: 287495

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	14:39	Nitrite as N	2.58	2.50	103	90-110		WCICCCV_00776
			Nitrate as N	2.59	2.50	103	90-110		WCICCCV_00776
2	CCB	15:00	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
9	CCV	17:24	Nitrite as N	2.56	2.50	103	90-110		WCICCCV_00776
			Nitrate as N	2.58	2.50	103	90-110		WCICCCV_00776
10	CCB	17:44	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 287816	Date: 07/18/2017 17:05						
2320B-1997	MB 240-287816/3	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 287491	Date: 07/18/2017 11:58						
300.0	MB 240-287491/3	Bromide	0.044	U	mg/L	0.50	1
300.0	MB 240-287491/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 287492	Date: 07/18/2017 11:58						
300.0	MB 240-287492/3	Nitrite as N	0.014	U	mg/L	0.10	1
300.0	MB 240-287492/3	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 287846	Date: 07/19/2017 11:28						
SM 2540C	MB 240-287846/1	Total Dissolved Solids	7.8	U	mg/L	10	1
Batch ID: 288143	Date: 07/21/2017 08:44						
SM 2540C	MB 240-288143/1	Total Dissolved Solids	7.8	U	mg/L	10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82390-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 217477 Date: 07/19/2017 06:08							
SM 2520B	MB 180-217477/1	Salinity	2.0	U	No Unit	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287495 Date: 07/15/2017 15:41											
300.0	240-82370-A-3	Nitrite as N	0.11		mg/L						
300.0	240-82370-A-3 MS	Nitrite as N	2.71		mg/L	2.50	104	80-120			
Batch ID: 287491 Date: 07/18/2017 14:22											
300.0	240-82390-2	Bromide	1.0		mg/L						
300.0	240-82390-2 MS	Bromide	12.1		mg/L	10.0	110	80-120			
300.0	240-82390-2	Sulfate	7.2		mg/L						
300.0	240-82390-2 MS	Sulfate	60.3		mg/L	50.0	106	80-120			
Batch ID: 287492 Date: 07/18/2017 14:22											
300.0	240-82390-2	Nitrite as N	0.014	U	mg/L						H
300.0	240-82390-2 MS	Nitrite as N	2.81		mg/L	2.50	112	80-120			
300.0	240-82390-2	Nitrate as N	1.1		mg/L						H
300.0	240-82390-2 MS	Nitrate as N	3.79		mg/L	2.50	109	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287495 Date: 07/15/2017 16:02											
300.0	240-82370-A-3 MSD	Nitrite as N	2.89		mg/L	2.50	111	80-120	6	15	
Batch ID: 287491 Date: 07/18/2017 14:42											
300.0	240-82390-2 MSD	Bromide	11.9		mg/L	10.0	109	80-120	1	15	
300.0	240-82390-2 MSD	Sulfate	60.0		mg/L	50.0	106	80-120	1	15	
Batch ID: 287492 Date: 07/18/2017 14:42											
300.0	240-82390-2 MSD	Nitrite as N	2.77		mg/L	2.50	111	80-120	1	15	
300.0	240-82390-2 MSD	Nitrate as N	3.76		mg/L	2.50	107	80-120	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 287816 Date: 07/18/2017 21:08								
2320B-1997	EW-2-END-071417	240-82390-2	Alkalinity	2.6	mg/L			U
2320B-1997	EW-2-END-071417	240-82390-2 DU	Alkalinity	2.6	mg/L	NC	20	U
Batch ID: 287846 Date: 07/19/2017 11:28								
SM 2540C		240-82306-G-3	Total Dissolved Solids	1100	mg/L			
SM 2540C		240-82306-G-3 DU	Total Dissolved Solids	1080	mg/L	0.5	20	
Batch ID: 288143 Date: 07/21/2017 08:44								
SM 2540C		240-82372-Q-6	Total Dissolved Solids	500	mg/L			
SM 2540C		240-82372-Q-6 DU	Total Dissolved Solids	523	mg/L	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82390-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 217477 Date: 07/19/2017 06:08								
SM 2520B	EW-2-MID-071317	240-82390-1	Salinity	2.0	No Unit			U
SM 2520B	EW-2-MID-071317	240-82390-1 DU	Salinity	2.0	No Unit	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 287816	Date: 07/18/2017 16:59										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-287816/2	Alkalinity	385		mg/L	377	102	86-123			
Batch ID: 287491	Date: 07/18/2017 12:19										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287491/4	Bromide	10.6		mg/L	10.0	106	90-110			
300.0	LCS 240-287491/4	Sulfate	51.7		mg/L	50.0	103	90-110			
Batch ID: 287492	Date: 07/18/2017 12:19										
						LCS Source: WCICLCS_00614					
300.0	LCS 240-287492/4	Nitrite as N	2.52		mg/L	2.50	101	90-110			
300.0	LCS 240-287492/4	Nitrate as N	2.65		mg/L	2.50	106	90-110			
Batch ID: 287846	Date: 07/19/2017 11:28										
						LCS Source: WCPHENOVSOLID_00022					
SM 2540C	LCS 240-287846/2	Total Dissolved Solids	264		mg/L	242	109	80-120			
Batch ID: 288143	Date: 07/21/2017 08:44										
						LCS Source: WCPHENOVSOLID_00022					
SM 2540C	LCS 240-288143/2	Total Dissolved Solids	246		mg/L	242	102	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: THOR

Method: 300.0 XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.044
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B RL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	RL (No Unit)	
Salinity		2	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 240-82390-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2520B XRL Date: 01/25/2011 12:16

Analyte	Wavelength/ Mass	XRL (No Unit)	
Salinity		2	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 07/18/2017 16:45 End Date: 07/18/2017 21:31

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			16:45	
LCS 240-287816/2	1	T	16:59	X
MB 240-287816/3	1	T	17:05	X
ZZZZZZ			17:09	
ZZZZZZ			17:17	
ZZZZZZ			17:24	
ZZZZZZ			17:31	
ZZZZZZ			17:41	
ZZZZZZ			17:51	
ZZZZZZ			18:05	
ZZZZZZ			18:19	
ZZZZZZ			18:32	
ZZZZZZ			18:45	
ZZZZZZ			18:59	
ZZZZZZ			19:03	
ZZZZZZ			19:12	
ZZZZZZ			19:22	
ZZZZZZ			19:31	
ZZZZZZ			19:42	
ZZZZZZ			19:54	
ZZZZZZ			20:12	
ZZZZZZ			20:24	
ZZZZZZ			20:41	
ZZZZZZ			20:47	
240-82390-1	1	T	20:53	X
ZZZZZZ			20:57	
240-82390-2	1	T	21:03	X
240-82390-2 DU	1	T	21:08	X
ZZZZZZ			21:27	
ZZZZZZ			21:31	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/15/2017 14:39 End Date: 07/15/2017 17:44

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-287495/1	1		14:39	X	X																								
CCB 240-287495/2	1		15:00	X	X																								
ZZZZZZ			15:20																										
240-82370-A-3 MS	1	T	15:41	X																									
240-82370-A-3 MSD	1	T	16:02	X																									
ZZZZZZ			16:22																										
ZZZZZZ			16:43																										
240-82390-2	1	T	17:03	X	X																								
CCV 240-287495/9	1		17:24	X	X																								
CCB 240-287495/10	1		17:44	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/18/2017 11:17 End Date: 07/18/2017 15:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Br	SO4																							
CCV 240-287491/1	1		11:17	X	X																							
CCB 240-287491/2	1		11:37	X	X																							
MB 240-287491/3	1	T	11:58	X	X																							
LCS 240-287491/4	1	T	12:19	X	X																							
ZZZZZZ			13:20																									
240-82390-1	1	T	13:41	X	X																							
240-82390-2	1	T	14:01	X	X																							
240-82390-2 MS	1	T	14:22	X	X																							
240-82390-2 MSD	1	T	14:42	X	X																							
CCV 240-287491/12	1		15:03	X	X																							
CCB 240-287491/13	1		15:24	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: THOR Analysis Method: 300.0

Start Date: 07/18/2017 11:17 End Date: 07/18/2017 15:24

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-287492/1	1		11:17	X	X																								
CCB 240-287492/2	1		11:37	X	X																								
MB 240-287492/3	1	T	11:58	X	X																								
LCS 240-287492/4	1	T	12:19	X	X																								
ZZZZZZ			12:39																										
ZZZZZZ			13:00																										
ZZZZZZ			13:20																										
240-82390-1 RA	1	T	13:41	X	X																								
240-82390-2 RA	1	T	14:01	X	X																								
240-82390-2 MS	1	T	14:22	X	X																								
240-82390-2 MSD	1	T	14:42	X	X																								
CCV 240-287492/12	1		15:03	X	X																								
CCB 240-287492/13	1		15:24	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/19/2017 11:28 End Date: 07/19/2017 11:28

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-287846/1	1	T	11:28	X																								
LCS 240-287846/2	1	T	11:28	X																								
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
240-82306-G-3 DU	1	T	11:28	X																								
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
240-82390-1	1	T	11:28	X																								
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									
ZZZZZZ			11:28																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/21/2017 08:44 End Date: 07/21/2017 08:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-288143/1	1	T	08:44	X																								
LCS 240-288143/2	1	T	08:44	X																								
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
240-82372-Q-6 DU	1	T	08:44	X																								
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									
240-82390-2	1	T	08:44	X																								
ZZZZZZ			08:44																									
ZZZZZZ			08:44																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 240-82390-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2520B

Start Date: 07/19/2017 06:08 End Date: 07/19/2017 06:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Salin																								
MB 180-217477/1	1	T	06:08	X																								
240-82390-1	1	T	06:08	X																								
240-82390-1 DU	1	T	06:08	X																								
240-82390-2	1	T	06:08	X																								
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									
ZZZZZZ			06:08																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287816 Batch Start Date: 07/18/17 16:45 Batch Analyst: Larue, Charles

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00017		
LCS 240-287816/2		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-287816/3		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-82390-D-1	EW-2-MID-071317	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82390-H-2	EW-2-END-071417	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-82390-H-2 DU	EW-2-END-071417	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-3115970
pH Buffer 2 ID	7-3072347
pH Buffer 3 ID	10-2951041
pH Buffer 4 ID	12-3072210
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
Probe ID	127
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 279524 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279524/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279524/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279524/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279524/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279524/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279524/6 IC		300.0		5 mL	2 mL				
STD7 240-279524/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279524/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279524/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 279525 Batch Start Date: 05/22/17 10:47 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00283				
STD1 240-279525/1 IC		300.0		5 mL	0.025 mL				
STD2 240-279525/2 IC		300.0		5 mL	0.125 mL				
STD3 240-279525/3 IC		300.0		5 mL	0.25 mL				
STD4 240-279525/4 IC		300.0		5 mL	0.5 mL				
STD5 240-279525/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-279525/6 IC		300.0		5 mL	2 mL				
STD7 240-279525/7 IC		300.0		5 mL	2.5 mL				
STD8 240-279525/8 IC		300.0		5 mL	3.75 mL				
STD9 240-279525/9 IC		300.0		5 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287491 Batch Start Date: 07/18/17 11:17 Batch Analyst: Weimer, Joshua W

Batch Method: 300.0 Batch End Date: 07/18/17 16:17

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-287491/1		300.0		5 mL	5 mL				
CCB 240-287491/2		300.0		5 mL					
MB 240-287491/3		300.0		5 mL					
LCS 240-287491/4		300.0		5 mL		5 mL			
240-82390-D-1	EW-2-MID-071317	300.0	T	5 mL					
240-82390-H-2	EW-2-END-071417	300.0	T	5 mL					
240-82390-H-2 MS	EW-2-END-071417	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82390-H-2 MSD	EW-2-END-071417	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-287491/12		300.0		5 mL	5 mL				
CCB 240-287491/13		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287492 Batch Start Date: 07/18/17 11:17 Batch Analyst: Weimer, Joshua W

Batch Method: 300.0 Batch End Date: 07/18/17 16:24

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00776	WCICLCS 00614	WCICSOLNA1 00016	WCICSOLNB1 00015	
CCV 240-287492/1		300.0		5 mL	5 mL				
CCB 240-287492/2		300.0		5 mL					
MB 240-287492/3		300.0		5 mL					
LCS 240-287492/4		300.0		5 mL		5 mL			
240-82390-D-1	EW-2-MID-071317	300.0	T	5 mL					
240-82390-H-2	EW-2-END-071417	300.0	T	5 mL					
240-82390-H-2 MS	EW-2-END-071417	300.0	T	5 mL			0.1 mL	0.1 mL	
240-82390-H-2 MSD	EW-2-END-071417	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-287492/12		300.0		5 mL	5 mL				
CCB 240-287492/13		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287495 Batch Start Date: 07/15/17 14:39 Batch Analyst: Weimer, Joshua W

Batch Method: 300.0 Batch End Date: 07/17/17 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00776	WCICSOLNA1 00016	WCICSOLNB1 00015		
CCV 240-287495/1		300.0		5 mL	5 mL				
CCB 240-287495/2		300.0		5 mL					
240-82370-A-3 MS		300.0	T	5 mL		0.1 mL	0.1 mL		
240-82370-A-3 MSD		300.0	T	5 mL		0.1 mL	0.1 mL		
240-82390-H-2	EW-2-END-071417	300.0	T	5 mL					
CCV 240-287495/9		300.0		5 mL	5 mL				
CCB 240-287495/10		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287846 Batch Start Date: 07/19/17 11:28 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date: 07/20/17 15:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-287846/1		SM 2540C			100 mL	3.7075 g	3.7084 g	3.7082 g	0 g
LCS 240-287846/2		SM 2540C			50 mL	3.6771 g	3.6908 g	3.6903 g	0 g
240-82306-G-3 DU		SM 2540C	T	1441 umhos/cm	100 mL	3.6951 g	3.8029 g	3.8031 g	0 g
240-82390-D-1	EW-2-MID-071317	SM 2540C	T	415 umhos/cm	100 mL	3.7134 g	3.7289 g	3.7286 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-287846/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0009 g	0.0007 g	N/A g
LCS 240-287846/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0137 g	0.0132 g	N/A g
240-82306-G-3 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.1078 g	0.108 g	N/A g
240-82390-D-1	EW-2-MID-071317	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0155 g	0.0152 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022		
MB 240-287846/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-287846/2		SM 2540C		N/A g	100 mL	OK	50 mL		
240-82306-G-3 DU		SM 2540C	T	N/A g	100 mL	OK			
240-82390-D-1	EW-2-MID-071317	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 287846 Batch Start Date: 07/19/17 11:28 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date: 07/20/17 15:49

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	7/20/17 13:52
Constant Weight (WT2) Date/Time Out	7/20/17 14:54
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Corrected Temperature in Oven	103 Degrees C
Corrected Temperature out of Oven	105 Degrees C
Date/Time Samples placed in Oven	7/19/17 1324
Date/Time Samples Removed from Oven	7/20/17 7:00
Filter Paper ID	3153840
Nominal Amount Used	100 mL
Oven ID	006
Weight(WT1) Start Date/Time	7/20/17 7:00
Weight(WT1) Date/Time Out	7/20/17 8:45
Weight(WT1) Start Temp	180 Degrees C
Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 288143 Batch Start Date: 07/21/17 08:44 Batch Analyst: Moser, Morgan

Batch Method: SM 2540C Batch End Date: 07/22/17 12:01

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-288143/1		SM 2540C			100 mL	3.8344 g	3.8350 g	3.8351 g	0 g
LCS 240-288143/2		SM 2540C			100 mL	3.8677 g	3.8921 g	3.8923 g	0 g
240-82372-Q-6 DU		SM 2540C	T	815 umhos/cm	100 mL	3.8713 g	3.9240 g	3.9236 g	0 g
240-82390-H-2	EW-2-END-071417	SM 2540C	T	250 umhos/cm	100 mL	3.8745 g	3.8883 g	3.8879 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-288143/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0006 g	0.0007 g	N/A g
LCS 240-288143/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0244 g	0.0246 g	N/A g
240-82372-Q-6 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0527 g	0.0523 g	N/A g
240-82390-H-2	EW-2-END-071417	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0138 g	0.0134 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00022		
MB 240-288143/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-288143/2		SM 2540C		N/A g	100 mL	OK	100 mL		
240-82372-Q-6 DU		SM 2540C	T	N/A g	100 mL	OK			
240-82390-H-2	EW-2-END-071417	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82390-1

SDG No.:

Batch Number: 288143 Batch Start Date: 07/21/17 08:44 Batch Analyst: Moser, Morgan

Batch Method: SM 2540C Batch End Date: 07/22/17 12:01

Batch Notes	
Balance ID	BO48
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	7/22/17 10:00
Constant Weight (WT2) Date/Time Out	7/22/17 11:00
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Corrected Temperature in Oven	105 Degrees C
Corrected Temperature out of Oven	105 Degrees C
Date/Time Samples placed in Oven	7/21/17 9:44
Date/Time Samples Removed from Oven	7/22/17 8:00
Filter Paper ID	3153848
Nominal Amount Used	100 mL
Oven ID	006/001
Weight(WT1) Start Date/Time	7/22/17 8:00
Weight(WT1) Date/Time Out	7/22/17 9:20
Weight(WT1) Start Temp	181 Degrees C
Weight(WT1) Temp Out	181 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

180325

3.9 | C3.9

BALTIMORE

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Chris Pike	Site Contact: Stuart Cameron	Date: 7/14/2017	COC No:
Tera Tech	Tel/Fax: (412)921-8861 (Office)	Lab Contact: John McFadden	Carrier: Test America Courier	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) W			112IC07896 - LI 19
(412) 921-8861 Phone	TAT if different from Below 5 Days			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC, Block E Downgradient Investigation	☐ 1 week			
Site: Middle River Complex	☐ 2 days			Sampler: S. Cameron
P O # 112IC07896 - LI 19	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Alkalinity	Sulfate, Nitrate, Bromide, TDS	Iron and Manganese	Salinity	Hardness	Sample Specific Notes:
EW-2-MID-071317	7/13/2017	16:00	G	AQ	8		X	X	X	X	X	X	
EW-2-END-071417	7/14/2017	7:36	G	AQ	8		X	X	X	X	X	X	
TB-071417	--	--	--	AQ	2		X						
							2	1	1	4	1	4	

240-82390 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-14-17/1100		TestAmerica	7-14-2017/1100
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TestAmerica	7-14-2017/1428			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				JK	7/15/17 940

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____

Canton Facility

Client Tetra Tech Site Name Block E Cooler unpacked by:

Cooler Received on 7/15/12 Opened on 7/15/12

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

☐ See Multiple Cooler Form

1. Cooler temperature upon receipt
   IR GUN# IR-8 (CF **-0.4** °C) Observed Cooler Temp._____ °C Corrected Cooler Temp._____ °C
   IR GUN #36 (CF **+0**°C) Observed Cooler Temp. 3.9 °C Corrected Cooler Temp. 3.9 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 56434 Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

Rec'd 2x40mL TB listed on 2 COC's will log 1x40mL for Each COC

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
EW-2-MID-071317	240-82390-F-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-2-MID-071317	240-82390-G-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-2-END-071417	240-82390-F-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
EW-2-END-071417	240-82390-G-2	Plastic 250ml - with Nitric Acid	<2	_____	_____

ANALYTICAL REPORT

Job Number: 240-82392-1

Job Description: MRC Block E Downgradient

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Chris Pike



Approved for release.
John McFadden
Project Manager I
7/24/2017 5:04 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
07/24/2017

cc: Tony Apanavage
Samantha Brenner
Mike Martin
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Detection Summary 8

Client Sample Results 9

Default Detection Limits 13

Surrogate Summary 16

QC Sample Results 17

QC Association 23

Chronicle 25

Certification Summary 26

Method Summary 27

Sample Summary 28

Manual Integration Summary 29

Reagent Traceability 37

Organic Sample Data 85

GC/MS VOA 85

Method 8260C 85

Method 8260C QC Summary 86

Method 8260C Sample Data 98

Standards Data 104

Method 8260C ICAL Data 104

Method 8260C CCAL Data 118

Raw QC Data 127

Method 8260C Blank Data 127

Table of Contents

Method 8260C LCS/LCSD Data 130

Method 8260C MS/MSD Data 133

Method 8260C Run Logs 137

GC Semi VOA 139

Method 8082A 139

Method 8082A QC Summary 140

Method 8082A Sample Data 148

Standards Data 149

Method 8082A ICAL Data 149

Method 8082A CCAL Data 169

Raw QC Data 205

Method 8082A Blank Data 205

Method 8082A LCS/LCSD Data 206

Method 8082A Run Logs 207

Method 8082A Prep Data 211

Inorganic Sample Data 212

Metals Data 212

Met Cover Page 213

Met Sample Data 214

Met QC Data 215

Met ICV/CCV 215

Met CRQL 220

Met Blanks 221

Met ICSA/ICSAB 228

Met MS/MSD/PDS 230

Met LCS/LCSD 234

Table of Contents

Met Serial Dilution 236

Met MDL 237

Met IECF 241

Met Linear Ranges 243

Met Preparation Log 244

Met Analysis Run Log 246

Met Prep Data 254

General Chemistry Data 259

Gen Chem Cover Page 260

Gen Chem Sample Data 261

Gen Chem QC Data 262

Gen Chem Duplicates 262

Gen Chem LCS/LCSD 263

Gen Chem MDL 264

Gen Chem Analysis Run Log 266

Gen Chem Prep Data 267

Shipping and Receiving Documents 268

Client Chain of Custody 269

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Block E Downgradient

Report Number: 240-82392-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 7/15/2017 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-071417 (240-82392-1) and WC-MRC-F-071317 (240-82392-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/17/2017.

Sample WC-MRC-F-071317 (240-82392-2)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-287405 was outside the method criteria for the following analyte(s): Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-071417 (240-82392-1), WC-MRC-F-071317 (240-82392-2) and (CCVIS 240-287405/3)

The following samples were received preserved with hydrochloric acid: TB-071417 (240-82392-1) and WC-MRC-F-071317 (240-82392-2). The requested target analyte list includes 2-chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WC-MRC-F-071317 (240-82392-2) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 07/17/2017 and analyzed on 07/20/2017.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WC-MRC-F-071317 (240-82392-2). Reagents: 3154650, 2596993 and 3141111.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-287517.

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

TCLP METALS (ICP)
Sample WC-MRC-F-071317 (240-82392-2) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 07/18/2017, prepared on 07/19/2017 and analyzed on 07/20/2017.

Chromium was detected in method blank LB 240-287720/1-B at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

TCLP MERCURY
Sample WC-MRC-F-071317 (240-82392-2) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 07/18/2017, prepared on 07/19/2017 and analyzed on 07/20/2017.

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

FLASHPOINT
Sample WC-MRC-F-071317 (240-82392-2) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 07/20/2017.

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

Client Sample ID: TB-071417 — Lab Sample ID: 240-82392-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.3	J	10	1.8	ug/L	1		8260C	Total/NA

Client Sample ID: WC-MRC-F-071317 — Lab Sample ID: 240-82392-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1600		50	17	ug/L	50		8260C	Total/NA
Barium	0.018	J	0.50	0.0024	mg/L	1		6010B	TCLP
Chromium	0.0014	J B	0.050	0.00055	mg/L	1		6010B	TCLP
Flashpoint	>200		1.00	1.00	Degrees F	1		1010A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-071417 **Lab Sample ID: 240-82392-1**
Date Collected: 07/14/17 00:00 **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46	ug/L			07/17/17 17:26	1
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 17:26	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 17:26	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 17:26	1
1,1-Dichloropropene	0.28	U	1.0	0.28	ug/L			07/17/17 17:26	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			07/17/17 17:26	1
1,2,3-Trichloropropane	0.54	U	1.0	0.54	ug/L			07/17/17 17:26	1
1,2,3-Trimethylbenzene	0.22	U	5.0	0.22	ug/L			07/17/17 17:26	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 17:26	1
1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L			07/17/17 17:26	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 17:26	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 17:26	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 17:26	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 17:26	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 17:26	1
1,3-Dichloropropane	0.29	U	1.0	0.29	ug/L			07/17/17 17:26	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1
2,2-Dichloropropane	0.34	U	1.0	0.34	ug/L			07/17/17 17:26	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 17:26	1
2-Chloroethyl vinyl ether	0.65	U	10	0.65	ug/L			07/17/17 17:26	1
2-Chlorotoluene	0.28	U	1.0	0.28	ug/L			07/17/17 17:26	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 17:26	1
4-Chlorotoluene	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1
p-Isopropyltoluene	0.29	U	1.0	0.29	ug/L			07/17/17 17:26	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 17:26	1
Acetone	**2.3**	**J**	10	1.8	ug/L			07/17/17 17:26	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 17:26	1
Bromobenzene	0.31	U	1.0	0.31	ug/L			07/17/17 17:26	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 17:26	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 17:26	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 17:26	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 17:26	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 17:26	1
Dibromochloromethane	0.25	U	1.0	0.25	ug/L			07/17/17 17:26	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 17:26	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 17:26	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 17:26	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 17:26	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 17:26	1
Dibromomethane	0.46	U	1.0	0.46	ug/L			07/17/17 17:26	1
Bromochloromethane	0.47	U	1.0	0.47	ug/L			07/17/17 17:26	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 17:26	1
Bromodichloromethane	0.30	U	1.0	0.30	ug/L			07/17/17 17:26	1
tert-Butyl alcohol (TBA)	4.6	U	50	4.6	ug/L			07/17/17 17:26	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 17:26	1
Hexachlorobutadiene	0.36	U	1.0	0.36	ug/L			07/17/17 17:26	1
Diisopropyl ether	0.44	U	10	0.44	ug/L			07/17/17 17:26	1

Client Sample ID: TB-071417 — Lab Sample ID: 240-82392-1

Date Collected: 07/14/17 00:00 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 17:26	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 17:26	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 17:26	1
m-Xylene & p-Xylene	0.24	U	2.0	0.24	ug/L			07/17/17 17:26	1
Naphthalene	0.25	U	1.0	0.25	ug/L			07/17/17 17:26	1
n-Butylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 17:26	1
N-Propylbenzene	0.45	U	1.0	0.45	ug/L			07/17/17 17:26	1
o-Xylene	0.28	U	1.0	0.28	ug/L			07/17/17 17:26	1
sec-Butylbenzene	0.27	U	1.0	0.27	ug/L			07/17/17 17:26	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1
Tert-amyl methyl ether	0.29	U	5.0	0.29	ug/L			07/17/17 17:26	1
Ethyl t-butyl ether	0.35	U	5.0	0.35	ug/L			07/17/17 17:26	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 17:26	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 17:26	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 17:26	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 17:26	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 17:26	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			07/17/17 17:26	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 17:26	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 17:26	1
tert-Butylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 17:26	1
1,2-Dibromoethane	0.23	U	1.0	0.23	ug/L			07/17/17 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*73 - 120*		*07/17/17 17:26*	*1*
Dibromofluoromethane (Surr)	*85*		*69 - 124*		*07/17/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*		*07/17/17 17:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*		*07/17/17 17:26*	*1*

Client Sample ID: WC-MRC-F-071317 — Lab Sample ID: 240-82392-2

Date Collected: 07/13/17 14:00 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	23	U	50	23	ug/L			07/17/17 17:49	50
1,1,1-Trichloroethane	12	U	50	12	ug/L			07/17/17 17:49	50
1,1,2,2-Tetrachloroethane	16	U	50	16	ug/L			07/17/17 17:49	50
1,1,2-Trichloro-1,2,2-trifluoroethane	21	U	50	21	ug/L			07/17/17 17:49	50
1,1-Dichloroethane	13	U	50	13	ug/L			07/17/17 17:49	50
1,1-Dichloroethene	14	U	50	14	ug/L			07/17/17 17:49	50
1,1-Dichloropropene	14	U	50	14	ug/L			07/17/17 17:49	50
1,2,3-Trichlorobenzene	18	U	50	18	ug/L			07/17/17 17:49	50
1,2,3-Trichloropropane	27	U	50	27	ug/L			07/17/17 17:49	50
1,2,3-Trimethylbenzene	11	U	250	11	ug/L			07/17/17 17:49	50
1,2,4-Trichlorobenzene	14	U	50	14	ug/L			07/17/17 17:49	50
1,2,4-Trimethylbenzene	12	U	50	12	ug/L			07/17/17 17:49	50
1,2-Dibromo-3-Chloropropane	24	U	100	24	ug/L			07/17/17 17:49	50
1,2-Dichlorobenzene	13	U	50	13	ug/L			07/17/17 17:49	50

Client Sample ID: WC-MRC-F-071317 **Lab Sample ID: 240-82392-2**
Date Collected: 07/13/17 14:00 **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	15	U	50	15	ug/L			07/17/17 17:49	50
1,2-Dichloropropane	15	U	50	15	ug/L			07/17/17 17:49	50
1,3-Dichlorobenzene	16	U	50	16	ug/L			07/17/17 17:49	50
1,3-Dichloropropane	15	U	50	15	ug/L			07/17/17 17:49	50
1,4-Dichlorobenzene	12	U	50	12	ug/L			07/17/17 17:49	50
2,2-Dichloropropane	17	U	50	17	ug/L			07/17/17 17:49	50
2-Butanone (MEK)	51	U	500	51	ug/L			07/17/17 17:49	50
2-Chloroethyl vinyl ether	33	U	500	33	ug/L			07/17/17 17:49	50
2-Chlorotoluene	14	U	50	14	ug/L			07/17/17 17:49	50
2-Hexanone	62	U	500	62	ug/L			07/17/17 17:49	50
4-Chlorotoluene	12	U	50	12	ug/L			07/17/17 17:49	50
p-Isopropyltoluene	15	U	50	15	ug/L			07/17/17 17:49	50
4-Methyl-2-pentanone (MIBK)	36	U	500	36	ug/L			07/17/17 17:49	50
Acetone	88	U	500	88	ug/L			07/17/17 17:49	50
Benzene	14	U	50	14	ug/L			07/17/17 17:49	50
Bromobenzene	16	U	50	16	ug/L			07/17/17 17:49	50
Bromoform	22	U	50	22	ug/L			07/17/17 17:49	50
Bromomethane	21	U	50	21	ug/L			07/17/17 17:49	50
Carbon disulfide	17	U	50	17	ug/L			07/17/17 17:49	50
Carbon tetrachloride	18	U	50	18	ug/L			07/17/17 17:49	50
Chlorobenzene	16	U	50	16	ug/L			07/17/17 17:49	50
Dibromochloromethane	13	U	50	13	ug/L			07/17/17 17:49	50
Chloroethane	21	U	50	21	ug/L			07/17/17 17:49	50
Chloroform	16	U	50	16	ug/L			07/17/17 17:49	50
Chloromethane	22	U	50	22	ug/L			07/17/17 17:49	50
cis-1,2-Dichloroethene	15	U	50	15	ug/L			07/17/17 17:49	50
cis-1,3-Dichloropropene	13	U	50	13	ug/L			07/17/17 17:49	50
Dibromomethane	23	U	50	23	ug/L			07/17/17 17:49	50
Bromochloromethane	24	U	50	24	ug/L			07/17/17 17:49	50
Dichlorodifluoromethane	25	U	50	25	ug/L			07/17/17 17:49	50
Bromodichloromethane	15	U	50	15	ug/L			07/17/17 17:49	50
tert-Butyl alcohol (TBA)	230	U	2500	230	ug/L			07/17/17 17:49	50
Ethylbenzene	13	U	50	13	ug/L			07/17/17 17:49	50
Hexachlorobutadiene	18	U	50	18	ug/L			07/17/17 17:49	50
Diisopropyl ether	22	U	500	22	ug/L			07/17/17 17:49	50
Isopropylbenzene	11	U	50	11	ug/L			07/17/17 17:49	50
Methyl tert-butyl ether	14	U	50	14	ug/L			07/17/17 17:49	50
Methylene Chloride	27	U	50	27	ug/L			07/17/17 17:49	50
m-Xylene & p-Xylene	12	U	100	12	ug/L			07/17/17 17:49	50
Naphthalene	13	U	50	13	ug/L			07/17/17 17:49	50
n-Butylbenzene	11	U	50	11	ug/L			07/17/17 17:49	50
N-Propylbenzene	23	U	50	23	ug/L			07/17/17 17:49	50
o-Xylene	14	U	50	14	ug/L			07/17/17 17:49	50
sec-Butylbenzene	14	U	50	14	ug/L			07/17/17 17:49	50
Styrene	12	U	50	12	ug/L			07/17/17 17:49	50
Tert-amyl methyl ether	15	U	250	15	ug/L			07/17/17 17:49	50
Ethyl t-butyl ether	18	U	250	18	ug/L			07/17/17 17:49	50
Tetrachloroethene	15	U	50	15	ug/L			07/17/17 17:49	50
Toluene	12	U	50	12	ug/L			07/17/17 17:49	50

Client Sample ID: WC-MRC-F-071317 — Lab Sample ID: 240-82392-2

Date Collected: 07/13/17 14:00 — **Matrix: Water**
Date Received: 07/15/17 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	15	U	50	15	ug/L			07/17/17 17:49	50
trans-1,3-Dichloropropene	16	U	50	16	ug/L			07/17/17 17:49	50
Trichloroethene	**1600**		50	17	ug/L			07/17/17 17:49	50
Trichlorofluoromethane	25	U	50	25	ug/L			07/17/17 17:49	50
Vinyl acetate	14	U	100	14	ug/L			07/17/17 17:49	50
Vinyl chloride	23	U	50	23	ug/L			07/17/17 17:49	50
Xylenes, Total	12	U	100	12	ug/L			07/17/17 17:49	50
tert-Butylbenzene	13	U	50	13	ug/L			07/17/17 17:49	50
1,2-Dibromoethane	12	U	50	12	ug/L			07/17/17 17:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*73 - 120*		*07/17/17 17:49*	*50*
Dibromofluoromethane (Surr)	*87*		*69 - 124*		*07/17/17 17:49*	*50*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*07/17/17 17:49*	*50*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 138*		*07/17/17 17:49*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.048	U	0.096	0.048	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1221	0.087	U	0.096	0.087	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1232	0.067	U	0.096	0.067	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1242	0.058	U	0.096	0.058	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1248	0.048	U	0.096	0.048	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1254	0.029	U	0.096	0.029	ug/L		07/17/17 13:24	07/20/17 14:26	1
Aroclor-1260	0.038	U	0.096	0.038	ug/L		07/17/17 13:24	07/20/17 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*47*		*21 - 120*	*07/17/17 13:24*	*07/20/17 14:26*	*1*
DCB Decachlorobiphenyl	*16*		*10 - 120*	*07/17/17 13:24*	*07/20/17 14:26*	*1*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.050	0.0033	mg/L		07/19/17 14:00	07/20/17 19:11	1
Barium	**0.018**	**J**	0.50	0.0024	mg/L		07/19/17 14:00	07/20/17 19:11	1
Cadmium	0.00029	U	0.050	0.00029	mg/L		07/19/17 14:00	07/20/17 19:11	1
Chromium	**0.0014**	**J B**	0.050	0.00055	mg/L		07/19/17 14:00	07/20/17 19:11	1
Lead	0.0019	U	0.050	0.0019	mg/L		07/19/17 14:00	07/20/17 19:11	1
Selenium	0.0051	U	0.050	0.0051	mg/L		07/19/17 14:00	07/20/17 19:11	1
Silver	0.00092	U	0.050	0.00092	mg/L		07/19/17 14:00	07/20/17 19:11	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	U	0.0020	0.00013	mg/L		07/19/17 14:00	07/20/17 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>200**		1.00	1.00	Degrees F			07/20/17 12:43	1

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.46	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.23	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.32	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.41	ug/L	8260C
1,1-Dichloroethane	1.0	0.25	ug/L	8260C
1,1-Dichloroethene	1.0	0.27	ug/L	8260C
1,1-Dichloropropene	1.0	0.28	ug/L	8260C
1,2,3-Trichlorobenzene	1.0	0.35	ug/L	8260C
1,2,3-Trichloropropane	1.0	0.54	ug/L	8260C
1,2,3-Trimethylbenzene	5.0	0.22	ug/L	8260C
1,2,4-Trichlorobenzene	1.0	0.27	ug/L	8260C
1,2,4-Trimethylbenzene	1.0	0.24	ug/L	8260C
1,2-Dibromo-3-Chloropropane	2.0	0.47	ug/L	8260C
1,2-Dibromoethane	1.0	0.23	ug/L	8260C
1,2-Dichlorobenzene	1.0	0.26	ug/L	8260C
1,2-Dichloroethane	1.0	0.30	ug/L	8260C
1,2-Dichloropropane	1.0	0.30	ug/L	8260C
1,3-Dichlorobenzene	1.0	0.32	ug/L	8260C
1,3-Dichloropropane	1.0	0.29	ug/L	8260C
1,4-Dichlorobenzene	1.0	0.23	ug/L	8260C
2,2-Dichloropropane	1.0	0.34	ug/L	8260C
2-Butanone (MEK)	10	1.0	ug/L	8260C
2-Chloroethyl vinyl ether	10	0.65	ug/L	8260C
2-Chlorotoluene	1.0	0.28	ug/L	8260C
2-Hexanone	10	1.2	ug/L	8260C
4-Chlorotoluene	1.0	0.23	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	10	0.71	ug/L	8260C
Acetone	10	1.8	ug/L	8260C
Benzene	1.0	0.28	ug/L	8260C
Bromobenzene	1.0	0.31	ug/L	8260C
Bromochloromethane	1.0	0.47	ug/L	8260C
Bromodichloromethane	1.0	0.30	ug/L	8260C
Bromoform	1.0	0.43	ug/L	8260C
Bromomethane	1.0	0.42	ug/L	8260C
Carbon disulfide	1.0	0.34	ug/L	8260C
Carbon tetrachloride	1.0	0.35	ug/L	8260C
Chlorobenzene	1.0	0.32	ug/L	8260C
Chloroethane	1.0	0.41	ug/L	8260C
Chloroform	1.0	0.31	ug/L	8260C
Chloromethane	1.0	0.43	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.26	ug/L	8260C
Dibromochloromethane	1.0	0.25	ug/L	8260C
Dibromomethane	1.0	0.46	ug/L	8260C
Dichlorodifluoromethane	1.0	0.50	ug/L	8260C
Diisopropyl ether	10	0.44	ug/L	8260C
Ethyl t-butyl ether	5.0	0.35	ug/L	8260C
Ethylbenzene	1.0	0.26	ug/L	8260C
Hexachlorobutadiene	1.0	0.36	ug/L	8260C
Isopropylbenzene	1.0	0.21	ug/L	8260C
Methyl tert-butyl ether	1.0	0.27	ug/L	8260C
Methylene Chloride	1.0	0.53	ug/L	8260C

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

Analyte	RL	MDL	Units	Method
m-Xylene & p-Xylene	2.0	0.24	ug/L	8260C
Naphthalene	1.0	0.25	ug/L	8260C
n-Butylbenzene	1.0	0.21	ug/L	8260C
N-Propylbenzene	1.0	0.45	ug/L	8260C
o-Xylene	1.0	0.28	ug/L	8260C
p-Isopropyltoluene	1.0	0.29	ug/L	8260C
sec-Butylbenzene	1.0	0.27	ug/L	8260C
Styrene	1.0	0.23	ug/L	8260C
Tert-amyl methyl ether	5.0	0.29	ug/L	8260C
tert-Butyl alcohol (TBA)	50	4.6	ug/L	8260C
tert-Butylbenzene	1.0	0.26	ug/L	8260C
Tetrachloroethene	1.0	0.30	ug/L	8260C
Toluene	1.0	0.23	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.31	ug/L	8260C
Trichloroethene	1.0	0.33	ug/L	8260C
Trichlorofluoromethane	1.0	0.50	ug/L	8260C
Vinyl acetate	2.0	0.28	ug/L	8260C
Vinyl chloride	1.0	0.45	ug/L	8260C
Xylenes, Total	2.0	0.24	ug/L	8260C

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

Prep: 3520C

Analyte	RL	MDL	Units	Method
Aroclor-1016	0.10	0.050	ug/L	8082A
Aroclor-1221	0.10	0.090	ug/L	8082A
Aroclor-1232	0.10	0.070	ug/L	8082A
Aroclor-1242	0.10	0.060	ug/L	8082A
Aroclor-1248	0.10	0.050	ug/L	8082A
Aroclor-1254	0.10	0.030	ug/L	8082A
Aroclor-1260	0.10	0.040	ug/L	8082A

Method: 6010B - Metals (ICP) - TCLP

Prep: 3010A

Leach: 1311

Analyte	RL	MDL	Units	Method
Arsenic	0.050	0.0033	mg/L	6010B
Barium	0.50	0.0024	mg/L	6010B
Cadmium	0.050	0.00029	mg/L	6010B
Chromium	0.050	0.00055	mg/L	6010B
Lead	0.050	0.0019	mg/L	6010B
Selenium	0.050	0.0051	mg/L	6010B
Silver	0.050	0.00092	mg/L	6010B

Method: 7470A - Mercury (CVAA) - TCLP

Prep: 7470A

Leach: 1311

Analyte	RL	MDL	Units	Method
Mercury	0.0020	0.00013	mg/L	7470A

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

General Chemistry

Analyte	RL	MDL	Units	Method
Flashpoint	1.00	1.00	Degrees F	1010A

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	12DCE
Lab Sample ID	Client Sample ID	(73-120)	(69-124)	(69-120)	(61-138)
240-82240-B-2 MS	Matrix Spike	108	84	97	80
240-82240-B-2 MSD	Matrix Spike Duplicate	111	86	99	80
240-82392-1	TB-071417	104	85	91	79
240-82392-2	WC-MRC-F-071317	103	87	90	80
LCS 240-287405/4	Lab Control Sample	107	84	97	79
MB 240-287405/7	Method Blank	102	82	92	78

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(21-120)	(10-120)
240-82392-2	WC-MRC-F-071317	47	16
LCS 240-287517/22-A	Lab Control Sample	64	78
MB 240-287517/21-A	Method Blank	69	81

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

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

Lab Sample ID: MB 240-287405/7
Matrix: Water
Analysis Batch: 287405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46	ug/L			07/17/17 10:44	1
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
1,1-Dichloroethene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,1-Dichloropropene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			07/17/17 10:44	1
1,2,3-Trichloropropane	0.54	U	1.0	0.54	ug/L			07/17/17 10:44	1
1,2,3-Trimethylbenzene	0.22	U	5.0	0.22	ug/L			07/17/17 10:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L			07/17/17 10:44	1
1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47	ug/L			07/17/17 10:44	1
1,2-Dichlorobenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
1,3-Dichlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
1,3-Dichloropropane	0.29	U	1.0	0.29	ug/L			07/17/17 10:44	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
2,2-Dichloropropane	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			07/17/17 10:44	1
2-Chloroethyl vinyl ether	0.65	U	10	0.65	ug/L			07/17/17 10:44	1
2-Chlorotoluene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
2-Hexanone	1.2	U	10	1.2	ug/L			07/17/17 10:44	1
4-Chlorotoluene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
p-Isopropyltoluene	0.29	U	1.0	0.29	ug/L			07/17/17 10:44	1
4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71	ug/L			07/17/17 10:44	1
Acetone	1.8	U	10	1.8	ug/L			07/17/17 10:44	1
Benzene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
Bromobenzene	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Bromoform	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
Bromomethane	0.42	U	1.0	0.42	ug/L			07/17/17 10:44	1
Carbon disulfide	0.34	U	1.0	0.34	ug/L			07/17/17 10:44	1
Carbon tetrachloride	0.35	U	1.0	0.35	ug/L			07/17/17 10:44	1
Chlorobenzene	0.32	U	1.0	0.32	ug/L			07/17/17 10:44	1
Dibromochloromethane	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
Chloroethane	0.41	U	1.0	0.41	ug/L			07/17/17 10:44	1
Chloroform	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Chloromethane	0.43	U	1.0	0.43	ug/L			07/17/17 10:44	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
cis-1,3-Dichloropropene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Dibromomethane	0.46	U	1.0	0.46	ug/L			07/17/17 10:44	1
Bromochloromethane	0.47	U	1.0	0.47	ug/L			07/17/17 10:44	1
Dichlorodifluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Bromodichloromethane	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
tert-Butyl alcohol (TBA)	4.6	U	50	4.6	ug/L			07/17/17 10:44	1
Ethylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
Hexachlorobutadiene	0.36	U	1.0	0.36	ug/L			07/17/17 10:44	1

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

Lab Sample ID: MB 240-287405/7
Matrix: Water
Analysis Batch: 287405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diisopropyl ether	0.44	U	10	0.44	ug/L			07/17/17 10:44	1
Isopropylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 10:44	1
Methyl tert-butyl ether	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
Methylene Chloride	0.53	U	1.0	0.53	ug/L			07/17/17 10:44	1
m-Xylene & p-Xylene	0.24	U	2.0	0.24	ug/L			07/17/17 10:44	1
Naphthalene	0.25	U	1.0	0.25	ug/L			07/17/17 10:44	1
n-Butylbenzene	0.21	U	1.0	0.21	ug/L			07/17/17 10:44	1
N-Propylbenzene	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
o-Xylene	0.28	U	1.0	0.28	ug/L			07/17/17 10:44	1
sec-Butylbenzene	0.27	U	1.0	0.27	ug/L			07/17/17 10:44	1
Styrene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
Tert-amyl methyl ether	0.29	U	5.0	0.29	ug/L			07/17/17 10:44	1
Ethyl t-butyl ether	0.35	U	5.0	0.35	ug/L			07/17/17 10:44	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			07/17/17 10:44	1
Toluene	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1
trans-1,2-Dichloroethene	0.29	U	1.0	0.29	ug/L			07/17/17 10:44	1
trans-1,3-Dichloropropene	0.31	U	1.0	0.31	ug/L			07/17/17 10:44	1
Trichloroethene	0.33	U	1.0	0.33	ug/L			07/17/17 10:44	1
Trichlorofluoromethane	0.50	U	1.0	0.50	ug/L			07/17/17 10:44	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			07/17/17 10:44	1
Vinyl chloride	0.45	U	1.0	0.45	ug/L			07/17/17 10:44	1
Xylenes, Total	0.24	U	2.0	0.24	ug/L			07/17/17 10:44	1
tert-Butylbenzene	0.26	U	1.0	0.26	ug/L			07/17/17 10:44	1
1,2-Dibromoethane	0.23	U	1.0	0.23	ug/L			07/17/17 10:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*73 - 120*		*07/17/17 10:44*	*1*
Dibromofluoromethane (Surr)	*82*		*69 - 124*		*07/17/17 10:44*	*1*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*07/17/17 10:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*78*		*61 - 138*		*07/17/17 10:44*	*1*

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	19.4		ug/L		97	73 - 136
1,1,1-Trichloroethane	20.0	16.0		ug/L		80	64 - 147
1,1,2,2-Tetrachloroethane	20.0	22.7		ug/L		114	58 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7		ug/L		89	65 - 144
1,1-Dichloroethane	20.0	18.5		ug/L		92	74 - 120
1,1-Dichloroethene	20.0	16.7		ug/L		83	65 - 127
1,1-Dichloropropene	20.0	18.4		ug/L		92	80 - 122
1,2,3-Trichlorobenzene	20.0	20.4		ug/L		102	31 - 144
1,2,3-Trichloropropane	20.0	21.9		ug/L		109	53 - 134
1,2,4-Trichlorobenzene	20.0	19.7		ug/L		98	34 - 141
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		103	80 - 120

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

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	20.0	20.7		ug/L		104	50 - 130
1,2-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	16.0		ug/L		80	68 - 133
1,2-Dichloropropane	20.0	20.3		ug/L		102	78 - 127
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
1,3-Dichloropropane	20.0	22.1		ug/L		111	71 - 124
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
2,2-Dichloropropane	20.0	17.4		ug/L		87	32 - 178
2-Butanone (MEK)	40.0	35.4		ug/L		89	43 - 149
2-Chloroethyl vinyl ether	20.0	19.8		ug/L		99	58 - 123
2-Chlorotoluene	20.0	21.8		ug/L		109	80 - 120
2-Hexanone	40.0	42.0		ug/L		105	28 - 169
4-Chlorotoluene	20.0	21.7		ug/L		108	79 - 120
p-Isopropyltoluene	20.0	20.0		ug/L		100	78 - 125
4-Methyl-2-pentanone (MIBK)	40.0	37.2		ug/L		93	53 - 144
Acetone	40.0	25.1		ug/L		63	35 - 131
Benzene	20.0	18.6		ug/L		93	79 - 120
Bromobenzene	20.0	21.0		ug/L		105	73 - 120
Bromoform	20.0	18.9		ug/L		95	55 - 145
Bromomethane	20.0	16.3		ug/L		81	17 - 158
Carbon disulfide	20.0	18.1		ug/L		90	49 - 141
Carbon tetrachloride	20.0	15.4		ug/L		77	55 - 171
Chlorobenzene	20.0	20.4		ug/L		102	80 - 120
Dibromochloromethane	20.0	20.0		ug/L		100	64 - 129
Chloroethane	20.0	18.7		ug/L		94	10 - 149
Chloroform	20.0	16.6		ug/L		83	80 - 120
Chloromethane	20.0	17.7		ug/L		89	59 - 124
cis-1,2-Dichloroethene	20.0	17.4		ug/L		87	77 - 120
cis-1,3-Dichloropropene	20.0	18.7		ug/L		94	75 - 120
Dibromomethane	20.0	16.5		ug/L		83	80 - 120
Bromochloromethane	20.0	17.9		ug/L		89	78 - 120
Dichlorodifluoromethane	20.0	17.4		ug/L		87	42 - 141
Bromodichloromethane	20.0	16.9		ug/L		84	79 - 125
tert-Butyl alcohol (TBA)	200	181		ug/L		90	52 - 136
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Hexachlorobutadiene	20.0	18.1		ug/L		91	36 - 146
Isopropylbenzene	20.0	18.8		ug/L		94	80 - 128
Methyl tert-butyl ether	20.0	17.0		ug/L		85	73 - 120
Methylene Chloride	20.0	16.9		ug/L		85	64 - 140
m-Xylene & p-Xylene	20.0	20.1		ug/L		100	80 - 120
Naphthalene	20.0	20.3		ug/L		101	31 - 127
n-Butylbenzene	20.0	19.6		ug/L		98	60 - 137
N-Propylbenzene	20.0	21.6		ug/L		108	76 - 120
o-Xylene	20.0	20.1		ug/L		100	80 - 120
sec-Butylbenzene	20.0	19.8		ug/L		99	76 - 124
Styrene	20.0	19.8		ug/L		99	80 - 121
Tetrachloroethene	20.0	20.2		ug/L		101	80 - 122
Toluene	20.0	21.0		ug/L		105	78 - 120

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

Lab Sample ID: LCS 240-287405/4
Matrix: Water
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	20.0	17.9		ug/L		89	74 - 124
trans-1,3-Dichloropropene	20.0	20.7		ug/L		104	67 - 120
Trichloroethene	20.0	17.4		ug/L		87	76 - 124
Trichlorofluoromethane	20.0	15.2		ug/L		76	27 - 176
Vinyl acetate	20.0	22.8		ug/L		114	42 - 141
Vinyl chloride	20.0	18.1		ug/L		90	65 - 124
Xylenes, Total	40.0	40.2		ug/L		101	80 - 120
tert-Butylbenzene	20.0	20.2		ug/L		101	79 - 120
1,2-Dibromoethane	20.0	20.7		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*84*		*69 - 124*
4-Bromofluorobenzene (Surr)	*97*		*69 - 120*
1,2-Dichloroethane-d4 (Surr)	*79*		*61 - 138*

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

Lab Sample ID: MB 240-287517/21-A
Matrix: Water
Analysis Batch: 287929

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.050	U	0.10	0.050	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1221	0.090	U	0.10	0.090	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1232	0.070	U	0.10	0.070	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1242	0.060	U	0.10	0.060	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1248	0.050	U	0.10	0.050	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1254	0.030	U	0.10	0.030	ug/L		07/17/17 13:24	07/20/17 07:22	1
Aroclor-1260	0.040	U	0.10	0.040	ug/L		07/17/17 13:24	07/20/17 07:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*21 - 120*	*07/17/17 13:24*	*07/20/17 07:22*	*1*
DCB Decachlorobiphenyl	*81*		*10 - 120*	*07/17/17 13:24*	*07/20/17 07:22*	*1*

Lab Sample ID: LCS 240-287517/22-A
Matrix: Water
Analysis Batch: 287929

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.33		ug/L		53	32 - 120
Aroclor-1260	2.50	1.57		ug/L		63	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*64*		*21 - 120*
DCB Decachlorobiphenyl	*78*		*10 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-287840/2-A
Matrix: Water
Analysis Batch: 288058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.050	0.0033	mg/L		07/19/17 14:00	07/20/17 12:05	1
Barium	0.0024	U	0.50	0.0024	mg/L		07/19/17 14:00	07/20/17 12:05	1
Cadmium	0.00029	U	0.050	0.00029	mg/L		07/19/17 14:00	07/20/17 12:05	1
Chromium	0.00055	U	0.050	0.00055	mg/L		07/19/17 14:00	07/20/17 12:05	1
Lead	0.0019	U	0.050	0.0019	mg/L		07/19/17 14:00	07/20/17 12:05	1
Selenium	0.0051	U	0.050	0.0051	mg/L		07/19/17 14:00	07/20/17 12:05	1
Silver	0.00092	U	0.050	0.00092	mg/L		07/19/17 14:00	07/20/17 12:05	1

Lab Sample ID: LCS 240-287840/3-A
Matrix: Water
Analysis Batch: 288058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	2.28		mg/L		114	50 - 150
Barium	2.00	2.09		mg/L		104	50 - 150
Cadmium	0.0500	0.0548		mg/L		110	50 - 150
Chromium	0.200	0.200		mg/L		100	50 - 150
Lead	0.500	0.490		mg/L		98	50 - 150
Selenium	2.00	2.32		mg/L		116	50 - 150
Silver	0.0500	0.0561		mg/L		112	50 - 150

Lab Sample ID: LB 240-287720/1-B
Matrix: Water
Analysis Batch: 288058

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 287840

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.050	0.0033	mg/L		07/19/17 14:00	07/20/17 12:00	1
Barium	0.0024	U	0.50	0.0024	mg/L		07/19/17 14:00	07/20/17 12:00	1
Cadmium	0.00029	U	0.050	0.00029	mg/L		07/19/17 14:00	07/20/17 12:00	1
Chromium	0.00111	J	0.050	0.00055	mg/L		07/19/17 14:00	07/20/17 12:00	1
Lead	0.0019	U	0.050	0.0019	mg/L		07/19/17 14:00	07/20/17 12:00	1
Selenium	0.0051	U	0.050	0.0051	mg/L		07/19/17 14:00	07/20/17 12:00	1
Silver	0.00092	U	0.050	0.00092	mg/L		07/19/17 14:00	07/20/17 12:00	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-287845/2-A
Matrix: Water
Analysis Batch: 288133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	U	0.0020	0.00013	mg/L		07/19/17 14:00	07/20/17 10:28	1

Lab Sample ID: LCS 240-287845/3-A
Matrix: Water
Analysis Batch: 288133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00519		mg/L		104	80 - 120

Lab Sample ID: LB 240-287720/1-C
Matrix: Water
Analysis Batch: 288133

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 287845

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	U	0.0020	0.00013	mg/L		07/19/17 14:00	07/20/17 10:26	1

Lab Sample ID: 240-82392-2 MS
Matrix: Water
Analysis Batch: 288133

Client Sample ID: WC-MRC-F-071317
Prep Type: TCLP
Prep Batch: 287845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00013	U	0.00500	0.00508		mg/L		102	80 - 120

Lab Sample ID: 240-82392-2 MSD
Matrix: Water
Analysis Batch: 288133

Client Sample ID: WC-MRC-F-071317
Prep Type: TCLP
Prep Batch: 287845

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00013	U	0.00500	0.00502		mg/L		100	80 - 120	1	20

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 240-288046/1
Matrix: Water
Analysis Batch: 288046

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	83.00		Degrees F		102	97 - 103

GC/MS VOA

Analysis Batch: 287405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-1	TB-071417	Total/NA	Water	8260C	
240-82392-2	WC-MRC-F-071317	Total/NA	Water	8260C	
MB 240-287405/7	Method Blank	Total/NA	Water	8260C	
LCS 240-287405/4	Lab Control Sample	Total/NA	Water	8260C	

GC Semi VOA

Prep Batch: 287517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	Total/NA	Water	3520C	
MB 240-287517/21-A	Method Blank	Total/NA	Water	3520C	
LCS 240-287517/22-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 287929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	Total/NA	Water	8082A	287517
MB 240-287517/21-A	Method Blank	Total/NA	Water	8082A	287517
LCS 240-287517/22-A	Lab Control Sample	Total/NA	Water	8082A	287517

Metals

Leach Batch: 287720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	TCLP	Water	1311	
LB 240-287720/1-B	Method Blank	TCLP	Water	1311	
LB 240-287720/1-C	Method Blank	TCLP	Water	1311	
240-82392-2 MS	WC-MRC-F-071317	TCLP	Water	1311	
240-82392-2 MSD	WC-MRC-F-071317	TCLP	Water	1311	

Prep Batch: 287840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	TCLP	Water	3010A	287720
LB 240-287720/1-B	Method Blank	TCLP	Water	3010A	287720
MB 240-287840/2-A	Method Blank	Total/NA	Water	3010A	
LCS 240-287840/3-A	Lab Control Sample	Total/NA	Water	3010A	

Prep Batch: 287845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	TCLP	Water	7470A	287720
LB 240-287720/1-C	Method Blank	TCLP	Water	7470A	287720
MB 240-287845/2-A	Method Blank	Total/NA	Water	7470A	
LCS 240-287845/3-A	Lab Control Sample	Total/NA	Water	7470A	
240-82392-2 MS	WC-MRC-F-071317	TCLP	Water	7470A	287720
240-82392-2 MSD	WC-MRC-F-071317	TCLP	Water	7470A	287720

Analysis Batch: 288058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	TCLP	Water	6010B	287840
LB 240-287720/1-B	Method Blank	TCLP	Water	6010B	287840
MB 240-287840/2-A	Method Blank	Total/NA	Water	6010B	287840

Metals (Continued)

Analysis Batch: 288058 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-287840/3-A	Lab Control Sample	Total/NA	Water	6010B	287840

Analysis Batch: 288133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	TCLP	Water	7470A	287845
LB 240-287720/1-C	Method Blank	TCLP	Water	7470A	287845
MB 240-287845/2-A	Method Blank	Total/NA	Water	7470A	287845
LCS 240-287845/3-A	Lab Control Sample	Total/NA	Water	7470A	287845
240-82392-2 MS	WC-MRC-F-071317	TCLP	Water	7470A	287845
240-82392-2 MSD	WC-MRC-F-071317	TCLP	Water	7470A	287845

General Chemistry

Analysis Batch: 288046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-82392-2	WC-MRC-F-071317	Total/NA	Water	1010A	
LCS 240-288046/1	Lab Control Sample	Total/NA	Water	1010A	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

Client Sample ID: TB-071417

Lab Sample ID: 240-82392-1

Date Collected: 07/14/17 00:00

Matrix: Water

Date Received: 07/15/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	287405	07/17/17 17:26	HMB	TAL CAN

Client Sample ID: WC-MRC-F-071317

Lab Sample ID: 240-82392-2

Date Collected: 07/13/17 14:00

Matrix: Water

Date Received: 07/15/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	287405	07/17/17 17:49	HMB	TAL CAN
Total/NA	Prep	3520C			287517	07/17/17 13:24	CS	TAL CAN
Total/NA	Analysis	8082A		1	287929	07/20/17 14:26	LSH	TAL CAN
TCLP	Leach	1311			287720	07/18/17 14:45	MH	TAL CAN
TCLP	Prep	3010A			287840	07/19/17 14:00	AJC	TAL CAN
TCLP	Analysis	6010B		1	288058	07/20/17 19:11	RKT	TAL CAN
TCLP	Leach	1311			287720	07/18/17 14:45	MH	TAL CAN
TCLP	Prep	7470A			287845	07/19/17 14:00	AJC	TAL CAN
TCLP	Analysis	7470A		1	288133	07/20/17 10:32	DTN	TAL CAN
Total/NA	Analysis	1010A		1	288046	07/20/17 12:43	JWW	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-82392-1
Project/Site: MRC Block E Downgradient

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-17 *
Kansas	NELAP	7	E-10336	01-31-18
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17
Minnesota	NELAP	5	039-999-348	12-31-17
Minnesota (Petrofund)	State Program	1	3506	07-31-17 *
Nevada	State Program	9	OH-000482008A	07-31-17 *
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-14-17 *
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-17 *
Texas	NELAP	6	T104704517-15-5	08-31-17 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-17 *
Washington	State Program	10	C971	01-12-18
West Virginia DEP	State Program	3	210	12-31-17
Wisconsin	State Program	5	999518190	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC Block E Downgradient

TestAmerica Job ID: 240-82392-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-82392-1	TB-071417	Water	07/14/17 00:00	07/15/17 09:40
240-82392-2	WC-MRC-F-071317	Water	07/13/17 14:00	07/15/17 09:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A3UX16 Analysis Batch Number: 272263

Lab Sample ID: STD8260 240-272263/7 IC Client Sample ID:

Date Analyzed: 03/29/17 14:25 Lab File ID: UXM1389.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	11.32	Missed Peak	laveyt	03/29/17 15:11

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: STD01 240-286548/5 IC Client Sample ID:

Date Analyzed: 07/10/17 19:17 Lab File ID: P12071005.D GC Column: CLP-2 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1	5.83	Split Peak	hassl	07/11/17 08:11
PCB-1232 Peak 2	6.41	Split Peak	hassl	07/11/17 08:11
PCB-1232 Peak 3	7.02	Split Peak	hassl	07/11/17 08:11
PCB-1232 Peak 4	7.20	Split Peak	hassl	07/11/17 08:11
PCB-1232 Peak 5	7.81	Split Peak	hassl	07/11/17 08:11

Lab Sample ID: STD02 240-286548/6 IC Client Sample ID:

Date Analyzed: 07/10/17 19:35 Lab File ID: P12071006.D GC Column: CLP-2 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1	5.83	Split Peak	hassl	07/11/17 08:12
PCB-1232 Peak 2	6.41	Split Peak	hassl	07/11/17 08:12
PCB-1232 Peak 3	7.02	Split Peak	hassl	07/11/17 08:12
PCB-1232 Peak 4	7.20	Split Peak	hassl	07/11/17 08:12
PCB-1232 Peak 5	7.80	Split Peak	hassl	07/11/17 08:12

Lab Sample ID: STD05 240-286548/7 IC Client Sample ID:

Date Analyzed: 07/10/17 19:52 Lab File ID: P12071007.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1	4.87	Baseline Smoothing	hassl	07/11/17 06:03
PCB-1232 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 06:03
PCB-1232 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 06:03
PCB-1232 Peak 4	6.18	Baseline Smoothing	hassl	07/11/17 06:03
PCB-1232 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 06:03

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: STD005 240-286548/10 IC Client Sample ID:

Date Analyzed: 07/10/17 20:45 Lab File ID: P12071010.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	4.88	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 4	6.19	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 06:20

Lab Sample ID: STD15 240-286548/15 IC Client Sample ID:

Date Analyzed: 07/10/17 22:14 Lab File ID: P12071015.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	4.87	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 4	6.18	Baseline Smoothing	hassl	07/11/17 06:20
PCB-1242 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 06:20

Lab Sample ID: STD15 240-286548/21 IC Client Sample ID:

Date Analyzed: 07/11/17 00:00 Lab File ID: P12071021.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.38	Baseline Smoothing	hassl	07/11/17 06:21
PCB-1248 Peak 2	6.44	Baseline Smoothing	hassl	07/11/17 06:21
PCB-1248 Peak 3	6.72	Baseline Smoothing	hassl	07/11/17 06:21
PCB-1248 Peak 4	7.52	Baseline Smoothing	hassl	07/11/17 06:21
PCB-1248 Peak 5	8.00	Baseline Smoothing	hassl	07/11/17 06:21

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: STD05 240-286548/25 IC Client Sample ID:

Date Analyzed: 07/11/17 01:11 Lab File ID: P12071025.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.20	Baseline Smoothing	hassl	07/11/17 06:22
PCB-1254 Peak 2	7.52	Baseline Smoothing	hassl	07/11/17 06:22
PCB-1254 Peak 3	8.00	Baseline Smoothing	hassl	07/11/17 06:22
PCB-1254 Peak 4	8.33	Baseline Smoothing	hassl	07/11/17 06:22
PCB-1254 Peak 5	8.88	Baseline Smoothing	hassl	07/11/17 06:22

Lab Sample ID: STD01 240-286548/29 IC Client Sample ID:

Date Analyzed: 07/11/17 02:21 Lab File ID: P12071029.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 3	8.88	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 5	9.99	Baseline Smoothing	hassl	07/11/17 07:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: STD02 240-286548/30 IC Client Sample ID:

Date Analyzed: 07/11/17 02:39 Lab File ID: P12071030.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	4.87	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1016 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1016 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1016 Peak 4	6.18	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1016 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 3	8.88	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/11/17 07:18
PCB-1260 Peak 5	9.99	Baseline Smoothing	hassl	07/11/17 07:18

Lab Sample ID: STD1 240-286548/32 IC Client Sample ID:

Date Analyzed: 07/11/17 03:14 Lab File ID: P12071032.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 3	8.87	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 5	9.98	Baseline Smoothing	hassl	07/11/17 07:19

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: STD15 240-286548/33 IC Client Sample ID:

Date Analyzed: 07/11/17 03:32 Lab File ID: P12071033.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	4.87	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1016 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1016 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1016 Peak 4	6.18	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1016 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 3	8.87	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/11/17 07:19
PCB-1260 Peak 5	9.98	Baseline Smoothing	hassl	07/11/17 07:19
DCB Decachlorobiphenyl	11.15	Baseline Smoothing	hassl	07/11/17 07:19

Lab Sample ID: ICV 240-286548/36 Client Sample ID:

Date Analyzed: 07/11/17 04:25 Lab File ID: P12071036.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	4.88	Baseline Smoothing	hassl	07/11/17 06:26
PCB-1242 Peak 2	5.38	Baseline Smoothing	hassl	07/11/17 06:26
PCB-1242 Peak 3	6.01	Baseline Smoothing	hassl	07/11/17 06:26
PCB-1242 Peak 4	6.18	Baseline Smoothing	hassl	07/11/17 06:26
PCB-1242 Peak 5	6.72	Baseline Smoothing	hassl	07/11/17 06:26

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 286548

Lab Sample ID: ICV 240-286548/38 Client Sample ID:

Date Analyzed: 07/11/17 05:00 Lab File ID: P12071038.D GC Column: CLP-2 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	8.33	Baseline Smoothing	hassl	07/11/17 06:27
PCB-1254 Peak 2	8.57	Baseline Smoothing	hassl	07/11/17 06:27
PCB-1254 Peak 3	9.11	Baseline Smoothing	hassl	07/11/17 06:27
PCB-1254 Peak 4	9.39	Baseline Smoothing	hassl	07/11/17 06:27
PCB-1254 Peak 5	10.03	Baseline Smoothing	hassl	07/11/17 06:27

Lab Sample ID: ICV 240-286548/39 Client Sample ID:

Date Analyzed: 07/11/17 05:18 Lab File ID: P12071039.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/11/17 07:44
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/11/17 07:44
PCB-1260 Peak 3	8.87	Baseline Smoothing	hassl	07/11/17 07:44
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/11/17 07:44
PCB-1260 Peak 5	9.98	Baseline Smoothing	hassl	07/11/17 07:44

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 287929

Lab Sample ID: LCS 240-287517/22-A Client Sample ID:

Date Analyzed: 07/20/17 07:39 Lab File ID: P12072010.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	4.87	Baseline Smoothing	hassl	07/20/17 08:51
PCB-1016 Peak 2	5.38	Baseline Smoothing	hassl	07/20/17 08:51
PCB-1016 Peak 3	6.01	Baseline Smoothing	hassl	07/20/17 08:51
PCB-1016 Peak 4	6.18	Baseline Smoothing	hassl	07/20/17 08:51
PCB-1016 Peak 5	6.72	Baseline Smoothing	hassl	07/20/17 08:51

Lab Sample ID: CCVIS 240-287929/29 Client Sample ID:

Date Analyzed: 07/20/17 13:15 Lab File ID: P12072029.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 1	8.22	Baseline Smoothing	hassl	07/21/17 08:18
PCB-1260 Peak 2	8.55	Baseline Smoothing	hassl	07/21/17 08:18
PCB-1260 Peak 3	8.87	Baseline Smoothing	hassl	07/21/17 08:18
PCB-1260 Peak 4	9.66	Baseline Smoothing	hassl	07/21/17 08:18
PCB-1260 Peak 5	9.98	Baseline Smoothing	hassl	07/21/17 08:18

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ex10PPMSPK_00027	10/27/17	05/25/17	MEOH, Lot 0000127999	1000 mL	ex1016/1260st_00007	10 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
.ex1016/1260st_00007	10/30/22		Restek, Lot A0120262		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
ex2/.2SURRW_00088	01/06/18	07/06/17	MEOH, Lot 0000147462	2000 mL	exPESTSURRstd_00006	2 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.exPESTSURRstd_00006	06/30/23		Restek, Lot A01215833		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
EXpH(0-14)_00019	05/26/22		Merck, Lot HC601355		(Purchased Reagent)		pH at time of analysis	1 No Unit
EXTCLPBUFF1_01209	07/18/17	07/17/17	DIWATER, Lot 07172017	48 L	EXTCLP5MNAOH_00035	1502.98 g	Sodium Hydroxide	0.626242 %
					EXTCLPACETIC_00024	547.2 mL	Acetic acid	1.14 %
.EXTCLP5MNAOH_00035	08/04/19	07/12/17	DIWATER, Lot 07122017	3 L	EXTCLPNAOH_00028	600 g	Sodium Hydroxide	200 mol/L
..EXTCLPNAOH_00028	08/04/19		Macron, Lot 0000169691		(Purchased Reagent)		Sodium Hydroxide	1 g/g
.EXTCLPACETIC_00024	11/10/20		Macron, Lot 00000130626		(Purchased Reagent)		Acetic acid	1 g/g
EXTCLPFILTERS_00032	12/12/21		Whatman, Lot 9752509		(Purchased Reagent)		Prep Analyte	100 Filter
EXTCLPHCLW_00056	06/28/19	07/18/17	DIWATER, Lot 07182017	2000 mL	MTTMHCL_00163	166 mL	Hydrogen Chloride	83 mol/L
.MTTMHCL_00163	06/28/19		JT Baker(Avantor), Lot 0000162118		(Purchased Reagent)		Hydrogen Chloride	100 %
K2S2O8_00067	06/29/19	06/29/17	DIWATER, Lot DIWATER	2.5 L	MTK2S208_00039	125 g	Potassium persulfate	0.05 g/g
.MTK2S208_00039	06/13/22		Macron, Lot 0000144327		(Purchased Reagent)		Potassium persulfate	1 g/g
MT1to1HCL_00070	09/16/17	03/16/17	DIWATER, Lot DIWATER	2500 mL	MTTMHCL_00148	1250 mL	Hydrogen Chloride	0.5 mL/mL
.MTTMHCL_00148	03/11/19		JT Baker(Avantor), Lot 0000162118		(Purchased Reagent)		Hydrogen Chloride	100 %
MT6500ICV_00038	12/14/17	06/14/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV3_00008	6 mL	Barium	1500 ug/L
							Chromium	1500 ug/L
					MTTRICV5_00014	1.5 mL	Arsenic	375 ug/L
							Cadmium	375 ug/L
							Lead	375 ug/L
							Selenium	375 ug/L
					MTTRICVAG_00007	7.5 mL	Silver	750 ug/L
.MTTRICV3_00008	05/22/18		CPI, Lot 1099181		(Purchased Reagent)		Barium	250 mg/L
							Chromium	250 mg/L
.MTTRICV5_00014	05/21/18		CPI, Lot 1099109		(Purchased Reagent)		Arsenic	250 ug/mL
							Cadmium	250 ug/mL
							Lead	250 ug/mL
							Selenium	250 ug/mL
.MTTRICVAG_00007	02/26/18		CPI, Lot 1095561		(Purchased Reagent)		Silver	100 mg/L
MTAGSPIKEW_00075	01/11/18	07/11/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00007	2.5 mL	Silver	2500 ug/L
					MTTMHNO3_00123	50 mL	Nitric acid	50000000 ug/L
.MTAG_00007	12/08/18		HIGH PURITY STANDARDS, Lot 1713128		(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00123	06/26/19		Macron/Avantor, Lot 0000162025		(Purchased Reagent)		Nitric acid	100 %
MTH2S04_00046	11/20/21		Macron, Lot 0000161554		(Purchased Reagent)		Sulfuric acid	100 %
MTHGCALW_01558	07/19/17	07/19/17	DIWATER, Lot DIWATER	200 mL	MTHGCAL_00031	2 mL	Mercury	100 ug/L
					MTTMHNO3_00124	0.25 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00031	04/18/18		High Purity, Lot 1706613		(Purchased Reagent)		Mercury	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTHgICV_00001_00202	07/19/17	07/19/17	DIWATER, Lot DIWATER	100 mL	LLHg-ICV_00005	1 mL	Mercury	0.1 ug/mL
					MTTMHNO3_00124	0.125 mL	Nitric acid	1250 ug/mL
.LLHg-ICV_00005	06/07/18	Elemental Scientific, Lot 1712311			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00065	09/29/17	06/24/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							Arsenic	100000 ug/L
							B	50000 ug/L
							Barium	100000 ug/L
							Be	2500 ug/L
							Cadmium	2500 ug/L
							Chromium	10000 ug/L
							Co	25000 ug/L
							Cu	12500 ug/L
							Fe	50000 ug/L
							Lead	25000 ug/L
							Mn	25000 ug/L
							Ni	25000 ug/L
							Selenium	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00119	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							Arsenic	2000 ug/mL
							B	1000 ug/mL
							Barium	2000 ug/mL
							Be	50 ug/mL
							Cadmium	50 ug/mL
							Chromium	200 ug/mL
							Co	500 ug/mL
							Cu	250 ug/mL
							Fe	1000 ug/mL
							Lead	500 ug/mL
							Mn	500 ug/mL
							Ni	500 ug/mL
							Selenium	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00119	05/16/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00073	12/22/17	06/22/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00122	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Ca	2500 mg/L
							K	2500 mg/L
							Mg	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00122	06/15/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Ca	10000 ug/mL
							K	10000 ug/mL
							Mg	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00104	01/07/18	07/07/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00018	195 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV1_00019	5 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV2_00018	195 mL	Silver	1000 ug/L
					MTICPCCV2_00019	5 mL	Silver	1000 ug/L
.MTICPCCV1_00018	05/10/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV1_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658053			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV2_00018	05/10/18	INORGANIC VENTURES, Lot m2-meb658054			(Purchased Reagent)		Silver	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPCCV2_00019	07/07/18	INORGANIC VENTURES, Lot M2-MEB658054			(Purchased Reagent)		Silver	10000 ug/L
MTICPICSABW_00014	10/11/17	04/11/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Be	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Co	500 ug/L
							Cu	500 ug/L
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Be	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Co	5000 ug/L
							Cu	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L
							Mn	5000 ug/L
							Na	100000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ni	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTKMN04W_00138	07/13/19	07/13/17	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00039	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00039	05/22/22	Fisher, Lot 164080			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTNONRCRA+ODD_00008	02/28/18	High-Purity Standards, Lot 1705427			(Purchased Reagent)		Al	100 ug/mL
							B	50 ug/mL
							Be	2.5 ug/mL
							Co	25 ug/mL
							Cu	12.5 ug/mL
							Fe	50 ug/mL
							Li	50 ug/mL
							Mn	25 ug/mL
							Mo	50 ug/mL
							Ni	25 ug/mL
							Sb	25 ug/mL
							Si	50 ug/mL
							Sn	100 ug/mL
							Sr	50 ug/mL
							Ti	50 ug/mL
							Tl	100 ug/mL
							V	25 ug/mL
							Zn	25 ug/mL
MTRCRA_00012	10/28/17	High Purity Standards, Lot 1630101			(Purchased Reagent)		Arsenic	500 mg/L
							Barium	5000 mg/L
							Cadmium	100 mg/L
							Chromium	500 mg/L
							Lead	500 mg/L
							Selenium	100 mg/L
							Silver	100 mg/L
MTTMHNO3_00124	07/11/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00049	01/17/18	07/17/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Arsenic	15 ug/L
							Barium	200 ug/L
							Cadmium	5 ug/L
							Chromium	10 ug/L
							Lead	10 ug/L
							Selenium	20 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Silver	10 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Arsenic	300 ug/L
							Barium	4000 ug/L
							Cadmium	100 ug/L
							Chromium	200 ug/L
							Lead	200 ug/L
							Selenium	400 ug/L
							Silver	200 ug/L
MTTRICSAW_00035	12/23/17	06/23/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00015	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L
.MTTRICSA_00015	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
SG1221ICV@1.0_00017	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1221ICV@1.0_00017	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1221ICV@100_00005	0.1 mL	Aroclor-1221	1 ug/mL
.SG1221ICV@100_00005	03/27/18	03/27/17	HEXANE, Lot 0000132636	10 mL	SG 1221 ICV_00009	1 mL	Aroclor-1221	100 ug/mL
..SG 1221 ICV_00009	06/30/19	restek, Lot a094157			(Purchased Reagent)		Aroclor-1221	1000 ug/mL
SG1232ICV@1.0_00019	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1232ICV@1.0_00019	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1232ICV@100_00005	0.1 mL	Aroclor-1232	1 ug/mL
.SG1232ICV@100_00005	11/21/17	11/21/16	HEXANE, Lot 0000146278	10 mL	SG 1232 ICV_00009	1 mL	Aroclor-1232	100 ug/mL
..SG 1232 ICV_00009	01/31/19	ULTRA SCIENTIFIC, Lot CG-4471			(Purchased Reagent)		Aroclor-1232	1000 ug/mL
SG1242ICV@1.0_00018	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1242ICV@1.0_00018	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1242ICV@100_00004	0.1 mL	Aroclor-1242	1 ug/mL
.SG1242ICV@100_00004	11/21/17	11/21/16	HEXANE, Lot 0000146278	10 mL	SG 1242 ICV_00008	1 mL	Aroclor-1242	100 ug/mL
..SG 1242 ICV_00008	01/31/20	ULTRA SCIENTIFIC, Lot CH-4123			(Purchased Reagent)		Aroclor-1242	1000 ug/mL
SG1248@.05ppm_00022	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	0.25 mL	PCB-1248 Peak 1	0.05 ug/mL
							PCB-1248 Peak 2	0.05 ug/mL
							PCB-1248 Peak 3	0.05 ug/mL
							PCB-1248 Peak 4	0.05 ug/mL
							PCB-1248 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21	Restek, Lot A0110957			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.1PPM_00024	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	0.5 mL	PCB-1248 Peak 1	0.1 ug/mL
							PCB-1248 Peak 2	0.1 ug/mL
							PCB-1248 Peak 3	0.1 ug/mL
							PCB-1248 Peak 4	0.1 ug/mL
							PCB-1248 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.2ppm_00020	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	1 mL	PCB-1248 Peak 1	0.2 ug/mL
							PCB-1248 Peak 2	0.2 ug/mL
							PCB-1248 Peak 3	0.2 ug/mL
							PCB-1248 Peak 4	0.2 ug/mL
							PCB-1248 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00029	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG1248@10ppm_00010	5 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00029	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG1248@10ppm_00010	5 mL	Aroclor-1248	0.5 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	Aroclor-1248	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
SG1248@1.0ppm_00020	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	5 mL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@1.5ppm_00001	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	7.5 mL	PCB-1248 Peak 1	1.5 ug/mL
							PCB-1248 Peak 2	1.5 ug/mL
							PCB-1248 Peak 3	1.5 ug/mL
							PCB-1248 Peak 4	1.5 ug/mL
							PCB-1248 Peak 5	1.5 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248ICV@1.0_00018	09/15/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248ICV@1.0_00018	09/15/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1248ICV@100_00004	0.1 mL	Aroclor-1248	1 ug/mL
.SG1248ICV@100_00004	09/15/17	09/15/16	HEXANE, Lot 0000140376	10 mL	SG 1248 ICV_00008	1 mL	Aroclor-1248	100 ug/mL
..SG 1248 ICV_00008	02/28/21		restek, Lot a0107321		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
SG1254ICV@1.0_00018	09/23/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1254ICV@1.0_00018	09/23/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1254ICV@100_00005	0.1 mL	Aroclor-1254	1 ug/mL
.SG1254ICV@100_00005	09/23/17	09/23/16	HEXANE, Lot 000040376	10 mL	SGPCB1254_00009	1 mL	Aroclor-1254	100 ug/mL
..SGPCB1254_00009	10/31/21		ULTRA SCIENTIFIC, Lot CK-3221		(Purchased Reagent)		Aroclor-1254	1000 ug/mL
SG1262ICV@1.0_00020	10/06/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1268ICV_00027	09/07/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@.05PPM_00020	11/03/17	05/03/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	0.5 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.125 mL	DCB Decachlorobiphenyl	0.0025 ug/mL
							Tetrachloro-m-xylene	0.0025 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.2ppm_00022	11/03/17	05/03/17	HEXANE, Lot 00000160062	50 mL	SG1016/1260_00022	1 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.25 mL	DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00072	11/03/17	05/03/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	5 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG1660@0.5PPM_00073	11/30/17	05/31/17	HEXANE, Lot 0000160062	100 mL	SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@0.5PPM_00073	11/30/17	05/31/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	5 mL	Aroclor-1016	0.5 ug/mL
							Aroclor-1260	0.5 ug/mL
							PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCGSURRSTK_00008	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
							PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21	Restek, Lot A0109664			(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
							PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22	Restek, Lot A0117947			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@1.0PPM_00023	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	5 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	1.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21	Restek, Lot A0109664			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22	Restek, Lot A0117947			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@1.5PPM_00001	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	7.5 mL	PCB-1016 Peak 1	1.5 ug/mL
							PCB-1016 Peak 2	1.5 ug/mL
							PCB-1016 Peak 3	1.5 ug/mL
							PCB-1016 Peak 4	1.5 ug/mL
							PCB-1016 Peak 5	1.5 ug/mL
							PCB-1260 Peak 1	1.5 ug/mL
							PCB-1260 Peak 2	1.5 ug/mL
							PCB-1260 Peak 3	1.5 ug/mL
							PCB-1260 Peak 4	1.5 ug/mL
							PCB-1260 Peak 5	1.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	2.5 mL	DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660ICV@1.0_00026	11/03/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660ICV@1.0_00026	11/03/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SG1660ICV@100_00010	0.1 mL	Aroclor-1016	1 ug/mL
							Aroclor-1260	1 ug/mL
					SGPCGSURRSTK_00008	0.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1660ICV@100_00010	03/07/18	03/08/17	HEXANE, Lot 0000132636	10 mL	SG 1660 ICV_00014	1 mL	Aroclor-1016	100 ug/mL
							Aroclor-1260	100 ug/mL
..SG 1660 ICV_00014	01/31/22		restek, Lot a0114674		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660STD@0.1_00020	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	0.5 mL	PCB-1016 Peak 1	0.1 ug/mL
							PCB-1016 Peak 2	0.1 ug/mL
							PCB-1016 Peak 3	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	0.1 ug/mL
							PCB-1016 Peak 5	0.1 ug/mL
							PCB-1260 Peak 1	0.1 ug/mL
							PCB-1260 Peak 2	0.1 ug/mL
							PCB-1260 Peak 3	0.1 ug/mL
							PCB-1260 Peak 4	0.1 ug/mL
							PCB-1260 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.125 mL	DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21	Restek, Lot A0109664			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22	Restek, Lot A0117947			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG2154@0.05PP_00016	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	0.25 mL	PCB-1221 Peak 1	0.05 ug/mL
							PCB-1221 Peak 2	0.05 ug/mL
							PCB-1221 Peak 3	0.05 ug/mL
							PCB-1254 Peak 1	0.05 ug/mL
							PCB-1254 Peak 2	0.05 ug/mL
							PCB-1254 Peak 3	0.05 ug/mL
							PCB-1254 Peak 4	0.05 ug/mL
							PCB-1254 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.2PPM_00017	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	1 mL	PCB-1221 Peak 1	0.2 ug/mL
							PCB-1221 Peak 2	0.2 ug/mL
							PCB-1221 Peak 3	0.2 ug/mL
							PCB-1254 Peak 1	0.2 ug/mL
							PCB-1254 Peak 2	0.2 ug/mL
							PCB-1254 Peak 3	0.2 ug/mL
							PCB-1254 Peak 4	0.2 ug/mL
							PCB-1254 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00032	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG2154@10ppm_00011	5 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00032	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG2154@10ppm_00011	5 mL	Aroclor-1221	0.5 ug/mL
							Aroclor-1254	0.5 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	Aroclor-1221	10 ug/mL
							Aroclor-1254	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		Aroclor-1221	1000 ug/mL
							Aroclor-1254	1000 ug/mL
SG2154@1.0PPM_00021	11/02/17	05/02/17	HEXANE, Lot 0000160026	50 mL	SG2154@10ppm_00011	5 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@1.5PPM_00001	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	7.5 mL	PCB-1221 Peak 1	1.5 ug/mL
							PCB-1221 Peak 2	1.5 ug/mL
							PCB-1221 Peak 3	1.5 ug/mL
							PCB-1254 Peak 1	1.5 ug/mL
							PCB-1254 Peak 2	1.5 ug/mL
							PCB-1254 Peak 3	1.5 ug/mL
							PCB-1254 Peak 4	1.5 ug/mL
							PCB-1254 Peak 5	1.5 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@O.1PPM_00018	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	0.5 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
							PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL
							PCB-1254 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.05PPM_00009	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	0.25 mL	PCB-1232 Peak 1	50 ug/L
							PCB-1232 Peak 2	50 ug/L
							PCB-1232 Peak 3	50 ug/L
							PCB-1232 Peak 4	50 ug/L
							PCB-1232 Peak 5	50 ug/L
							PCB-1262 Peak 1	50 ug/L
							PCB-1262 Peak 2	50 ug/L
							PCB-1262 Peak 3	50 ug/L
							PCB-1262 Peak 4	50 ug/L
							PCB-1262 Peak 5	50 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.2PPM_00013	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	1 mL	PCB-1232 Peak 1	200 ug/L
							PCB-1232 Peak 2	200 ug/L
							PCB-1232 Peak 3	200 ug/L
							PCB-1232 Peak 4	200 ug/L
							PCB-1232 Peak 5	200 ug/L
							PCB-1262 Peak 1	200 ug/L
							PCB-1262 Peak 2	200 ug/L
							PCB-1262 Peak 3	200 ug/L
							PCB-1262 Peak 4	200 ug/L
							PCB-1262 Peak 5	200 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21	Restelk, Lot A0112323			(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.1PPM_00010	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	0.5 mL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00019	10/25/17	04/26/17	HEXANE, Lot 0000160062	100 mL	SG32/6210PPM_00006	5 mL	PCB-1232 Peak 1	500 ug/L
							PCB-1232 Peak 2	500 ug/L
							PCB-1232 Peak 3	500 ug/L
							PCB-1232 Peak 4	500 ug/L
							PCB-1232 Peak 5	500 ug/L
							PCB-1262 Peak 1	500 ug/L
							PCB-1262 Peak 2	500 ug/L
							PCB-1262 Peak 3	500 ug/L
							PCB-1262 Peak 4	500 ug/L
							PCB-1262 Peak 5	500 ug/L
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00019	10/25/17	04/26/17	HEXANE, Lot 0000160062	100 mL	SG32/6210PPM_00006	5 mL	Aroclor-1232	500 ug/L
							PCB-1262	500 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	Aroclor-1232	10 ug/mL
							PCB-1262	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		Aroclor-1232	1000 ug/mL
							PCB-1262	1000 ug/mL
SG3262@1.0PPM_00012	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	5 mL	PCB-1232 Peak 1	1000 ug/L
							PCB-1232 Peak 2	1000 ug/L
							PCB-1232 Peak 3	1000 ug/L
							PCB-1232 Peak 4	1000 ug/L
							PCB-1232 Peak 5	1000 ug/L
							PCB-1262 Peak 1	1000 ug/L
							PCB-1262 Peak 2	1000 ug/L
							PCB-1262 Peak 3	1000 ug/L
							PCB-1262 Peak 4	1000 ug/L
							PCB-1262 Peak 5	1000 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@1.5PPM_00001	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	7.5 mL	PCB-1232 Peak 1	1500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 2	1500 ug/L
							PCB-1232 Peak 3	1500 ug/L
							PCB-1232 Peak 4	1500 ug/L
							PCB-1232 Peak 5	1500 ug/L
							PCB-1262 Peak 1	1500 ug/L
							PCB-1262 Peak 2	1500 ug/L
							PCB-1262 Peak 3	1500 ug/L
							PCB-1262 Peak 4	1500 ug/L
							PCB-1262 Peak 5	1500 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG42/68@1.0PP_00016	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	5 mL	PCB-1242 Peak 1	1000 ug/L
							PCB-1242 Peak 2	1000 ug/L
							PCB-1242 Peak 3	1000 ug/L
							PCB-1242 Peak 4	1000 ug/L
							PCB-1242 Peak 5	1000 ug/L
							PCB-1268 Peak 1	1000 ug/L
							PCB-1268 Peak 2	1000 ug/L
							PCB-1268 Peak 3	1000 ug/L
							PCB-1268 Peak 4	1000 ug/L
							PCB-1268 Peak 5	1000 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.05PPM_00009	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	0.25 mL	PCB-1242 Peak 1	50 ug/L
							PCB-1242 Peak 2	50 ug/L
							PCB-1242 Peak 3	50 ug/L
							PCB-1242 Peak 4	50 ug/L
							PCB-1242 Peak 5	50 ug/L
							PCB-1268 Peak 1	50 ug/L
							PCB-1268 Peak 2	50 ug/L
							PCB-1268 Peak 3	50 ug/L
							PCB-1268 Peak 4	50 ug/L
							PCB-1268 Peak 5	50 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.1PPM_00010	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	0.5 mL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.2PPM_00010	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	1 mL	PCB-1242 Peak 1	200 ug/L
							PCB-1242 Peak 2	200 ug/L
							PCB-1242 Peak 3	200 ug/L
							PCB-1242 Peak 4	200 ug/L
							PCB-1242 Peak 5	200 ug/L
							PCB-1268 Peak 1	200 ug/L
							PCB-1268 Peak 2	200 ug/L
							PCB-1268 Peak 3	200 ug/L
							PCB-1268 Peak 4	200 ug/L
							PCB-1268 Peak 5	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00021	10/27/17	04/27/17	HEXANE, Lot 0000160062	100 mL	SG42/6810PPM_00005	5 mL	PCB-1242 Peak 1	500 ug/L
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00021	10/27/17	04/27/17	HEXANE, Lot 0000160062	100 mL	SG42/6810PPM_00005	5 mL	Aroclor-1242	500 ug/L
							PCB-1268	500 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	Aroclor-1242	10000 ug/L
							PCB-1268	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		Aroclor-1242	1000 ug/mL
							PCB-1268	1000 ug/mL
SG4268@1.5PPM_00001	10/26/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	7.5 mL	PCB-1242 Peak 1	1500 ug/L
							PCB-1242 Peak 2	1500 ug/L
							PCB-1242 Peak 3	1500 ug/L
							PCB-1242 Peak 4	1500 ug/L
							PCB-1242 Peak 5	1500 ug/L
							PCB-1268 Peak 1	1500 ug/L
							PCB-1268 Peak 2	1500 ug/L
							PCB-1268 Peak 3	1500 ug/L
							PCB-1268 Peak 4	1500 ug/L
							PCB-1268 Peak 5	1500 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SGPCBISTD_00011	11/04/17	05/04/17	HEXANE, Lot 0000160062	100 mL	SGPCBIS STOCk_00008	10 mL	1-Bromo-2-nitrobenzene	1 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
vm100is_stk_00031	07/17/17	01/17/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21		restek, Lot A0117358		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100is_stk_00033	11/24/17	05/24/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21		restek, Lot A0117358		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00025	09/14/17	03/14/17	MEOH, Lot 127999	100 mL	VM567650_00025	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00025	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm100ss_stk_00026	12/16/17	06/16/17	MEOH, Lot 147462	100 mL	VM567650_00027	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00027	07/31/21		Restek, Lot A0120212		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00278	03/31/17	03/24/17	MEOH, Lot na	4 mL	vm50ss_stk_00072	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00072	06/07/17	12/07/16	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00190	03/31/17	03/27/17	MEOH, Lot na	4 mL	VMACROLSTD_00046	4 mL	Acrolein	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VMACROLSTD_00046	03/31/17	03/01/17	MEOH, Lot 0000127999	20 mL	VM568720_00018	250 uL	Acrolein	250 ug/mL
..VM568720_00018	03/31/17		restek, Lot A0122668		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASA9W_00135	04/04/17	03/28/17	MEOH, Lot NA	4 mL	VMFASA9_00009	4 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00009	06/30/17	03/02/17	MEOH, Lot 0000127999	100 mL	VM570808S_00001	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993S_00002	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808S_00001	06/30/17		Restek, Lot A0116135		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993S_00002	12/31/18		restek, Lot A0123771		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASGW_00201	04/03/17	03/27/17	MEOH, Lot NA	4 mL	VMFASG_00056	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00056	04/22/17	03/22/17	MEOH, Lot 0000127999	50 mL	vm569722S_00002	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00002	05/31/18		Restek, Lot A0111273		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00218	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMFASG_00061	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00061	08/14/17	07/14/17	MEOH, Lot +181520000147462JF	50 mL	vm569722S_00003	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00003	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00196	03/29/17	03/22/17	MEOH, Lot n/a	4 mL	VMRFASP_00036	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00036	04/30/17	01/25/17	MEOH, Lot 0000127999	100 mL	VM569720S_00004	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00004	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00010	1 mL	Vinyl acetate	50 ug/mL
..VM569720S_00004	07/31/18		Restek, Lot A0120604		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00004	07/31/18		Restek, Lot A0112291		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM569724S_00010	04/30/17	Restek, Lot A0122475			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMFASPW_00211	07/24/17	07/17/17	MEOH, Lot n/a	4 mL	VMRFASP_00039	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00039	07/31/17	06/15/17	MEOH, Lot 0000147462	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00004	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00012	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00001	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00004	07/31/18		Restek, Lot A0112291		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00012	07/31/17		Restek, Lot A0124531		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmra9w_00198	03/30/17	03/23/17	MEOH, Lot NA	1 mL	VMRA9_00018	1 mL	Cyclohexanone	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Pentachloroethane	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
.VMRA9_00018	04/30/17	12/31/16	MEOH, Lot 00000127999	50 mL	VM569727_00001	1 mL	Cyclohexanone	500 ug/mL
					VM569728_00001	1 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm570806_00001	2 mL	Pentachloroethane	100 ug/mL
					vm570807_00001	2 mL	2-Methylnaphthalene	100 ug/mL
					VM570808_00001	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VM570809_00001	1 mL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
..VM569727_00001	04/30/18		RESTEK, Lot A0110092		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..VM569728_00001	04/30/17		restek, Lot A0110540		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
..vm570806_00001	12/31/17		Restek, Lot A0116076		(Purchased Reagent)		Pentachloroethane	2500 ug/mL
..vm570807_00001	12/31/17		Restek, Lot A0116084		(Purchased Reagent)		2-Methylnaphthalene	2500 ug/mL
..VM570808_00001	06/30/17		Restek, Lot A0116133		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
..VM570809_00001	06/30/17		Restek, Lot A0116077		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
VMRA9W_00213	07/24/17	07/17/17	MEOH, Lot NA	1 mL	VMRA9_00020	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00020	12/30/17	06/30/17	MEOH, Lot 00000147462	50 mL	VM570808_00003	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993_00001	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808_00003	06/30/18		Restek, Lot A0123685		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993_00001	12/31/18		restek, Lot A0123796		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
vmrgas_00194	04/04/17	03/28/17	MEOH, Lot 0000127999	10 mL	vm569722_00007	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00007	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00208	07/24/17	07/17/17	MEOH, Lot 0000147462	10 mL	vm569722_00008	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00008	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00229	03/29/17	03/22/17	MEOH, Lot NA	4 mL	VMRPRIM_00021	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00021	05/31/17	01/31/17	MEOH, Lot 0000127999	50 mL	VM569720_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00001	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00009	0.5 mL	Vinyl acetate	50 ug/mL
..VM569720_00003	03/31/18		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00001	01/31/18		restek, Lot A0108172		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00009	05/31/17		Restek, Lot A0123104		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00244	07/24/17	07/17/17	MEOH, Lot NA	4 mL	VMRPRIM_00023	4 mL	2-Butanone (MEK)	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00023	09/30/17	06/30/17	MEOH, Lot 0000147462	50 mL	VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00002	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569723_00003	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00010	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00001	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00002	03/31/18		restek, Lot A0109994		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569723_00003	07/31/18		restek, Lot A0112895		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00010	09/30/17		Restek, Lot A0125716		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00001	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
WCP-XYLENE_00020	02/20/19	JT Baker, Lot 156626			(Purchased Reagent)		Flashpoint	81 Degrees F

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-071417	240-82392-1	85	79	104	91
WC-MRC-F-071317	240-82392-2	87	80	103	90
	MB 240-287405/7	82	78	102	92
	LCS 240-287405/4	84	79	107	97
	240-82240-B-2 MS	84	80	108	97
	240-82240-B-2 MSD	86	80	111	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.4	97	73-136	
1,1,1-Trichloroethane	20.0	16.0	80	64-147	
1,1,2,2-Tetrachloroethane	20.0	22.7	114	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.7	89	65-144	
1,1-Dichloroethane	20.0	18.5	92	74-120	
1,1-Dichloroethene	20.0	16.7	83	65-127	
1,1-Dichloropropene	20.0	18.4	92	80-122	
1,2,3-Trichlorobenzene	20.0	20.4	102	31-144	
1,2,3-Trichloropropane	20.0	21.9	109	53-134	
1,2,4-Trichlorobenzene	20.0	19.7	98	34-141	
1,2,4-Trimethylbenzene	20.0	20.7	103	80-120	
1,2-Dibromo-3-Chloropropane	20.0	20.7	104	50-130	
1,2-Dichlorobenzene	20.0	20.7	104	80-120	
1,2-Dichloroethane	20.0	16.0	80	68-133	
1,2-Dichloropropane	20.0	20.3	102	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,3-Dichloropropane	20.0	22.1	111	71-124	
1,4-Dichlorobenzene	20.0	19.9	99	80-120	
2,2-Dichloropropane	20.0	17.4	87	32-178	
2-Butanone (MEK)	40.0	35.4	89	43-149	
2-Chloroethyl vinyl ether	20.0	19.8	99	58-123	
2-Chlorotoluene	20.0	21.8	109	80-120	
2-Hexanone	40.0	42.0	105	28-169	
4-Chlorotoluene	20.0	21.7	108	79-120	
p-Isopropyltoluene	20.0	20.0	100	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	37.2	93	53-144	
Acetone	40.0	25.1	63	35-131	
Benzene	20.0	18.6	93	79-120	
Bromobenzene	20.0	21.0	105	73-120	
Bromoform	20.0	18.9	95	55-145	
Bromomethane	20.0	16.3	81	17-158	
Carbon disulfide	20.0	18.1	90	49-141	
Carbon tetrachloride	20.0	15.4	77	55-171	
Chlorobenzene	20.0	20.4	102	80-120	
Dibromochloromethane	20.0	20.0	100	64-129	
Chloroethane	20.0	18.7	94	10-149	
Chloroform	20.0	16.6	83	80-120	
Chloromethane	20.0	17.7	89	59-124	
cis-1,2-Dichloroethene	20.0	17.4	87	77-120	
cis-1,3-Dichloropropene	20.0	18.7	94	75-120	
Dibromomethane	20.0	16.5	83	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4613.D

Lab ID: LCS 240-287405/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	20.0	17.9	89	78-120	
Dichlorodifluoromethane	20.0	17.4	87	42-141	
Bromodichloromethane	20.0	16.9	84	79-125	
tert-Butyl alcohol (TBA)	200	181	90	52-136	
Ethylbenzene	20.0	20.5	103	80-120	
Hexachlorobutadiene	20.0	18.1	91	36-146	
Isopropylbenzene	20.0	18.8	94	80-128	
Methyl tert-butyl ether	20.0	17.0	85	73-120	
Methylene Chloride	20.0	16.9	85	64-140	
m-Xylene & p-Xylene	20.0	20.1	100	80-120	
Naphthalene	20.0	20.3	101	31-127	
n-Butylbenzene	20.0	19.6	98	60-137	
N-Propylbenzene	20.0	21.6	108	76-120	
o-Xylene	20.0	20.1	100	80-120	
sec-Butylbenzene	20.0	19.8	99	76-124	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	20.2	101	80-122	
Toluene	20.0	21.0	105	78-120	
trans-1,2-Dichloroethene	20.0	17.9	89	74-124	
trans-1,3-Dichloropropene	20.0	20.7	104	67-120	
Trichloroethene	20.0	17.4	87	76-124	
Trichlorofluoromethane	20.0	15.2	76	27-176	
Vinyl acetate	20.0	22.8	114	42-141	
Vinyl chloride	20.0	18.1	90	65-124	
Xylenes, Total	40.0	40.2	101	80-120	
tert-Butylbenzene	20.0	20.2	101	79-120	
1,2-Dibromoethane	20.0	20.7	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	120 U	7930	79	57-156	
1,1,2,2-Tetrachloroethane	10000	160 U	11400	114	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	210 U	9490	95	58-137	
1,1-Dichloroethane	10000	130 U	8780	88	69-122	
1,1-Dichloroethene	10000	140 U	8500	85	62-127	
1,2,4-Trichlorobenzene	10000	140 U	9080	91	26-138	
1,2-Dibromo-3-Chloropropane	10000	240 U	9730	97	48-130	
1,2-Dichlorobenzene	10000	130 U	9840	98	70-120	
1,2-Dichloroethane	10000	150 U	7590	76	64-138	
1,2-Dichloropropane	10000	150 U	9870	99	72-131	
1,3-Dichlorobenzene	10000	160 U	9590	96	71-120	
1,4-Dichlorobenzene	10000	120 U	9660	97	72-120	
2-Butanone (MEK)	20000	510 U	17000	85	34-153	
2-Hexanone	20000	620 U	19400	97	21-184	
4-Methyl-2-pentanone (MIBK)	20000	360 U	17700	88	53-147	
Acetone	20000	880 U	12000	60	19-133	
Benzene	10000	140 U	8940	89	69-127	
Bromoform	10000	220 U	8700	87	61-135	
Bromomethane	10000	210 U	7330	73	10-148	
Carbon disulfide	10000	170 U	8740	87	46-143	
Carbon tetrachloride	10000	180 U	7820	78	53-175	
Chlorobenzene	10000	160 U	9740	97	76-120	
Dibromochloromethane	10000	130 U	9360	94	62-131	
Chloroethane	10000	210 U	8950	90	10-141	
Chloroform	10000	160 U	7910	79	74-125	
Chloromethane	10000	220 U	8350	83	34-127	
cis-1,2-Dichloroethene	10000	150 U	8530	85	69-127	
cis-1,3-Dichloropropene	10000	130 U	8820	88	68-120	
Dichlorodifluoromethane	10000	250 U	9180	92	45-130	
Bromodichloromethane	10000	150 U	8080	81	75-128	
Ethylbenzene	10000	130 U	9930	99	72-121	
Isopropylbenzene	10000	110 U	9120	91	70-132	
Methyl tert-butyl ether	10000	140 U	7970	80	67-125	
Methylene Chloride	10000	270 U	8150	82	52-137	
m-Xylene & p-Xylene	10000	120 U	9830	98	70-121	
o-Xylene	10000	140 U	9480	95	71-125	
Styrene	10000	120 U	9490	95	74-125	
Tetrachloroethene	10000	150 U	10600	106	69-126	
Toluene	10000	120 U	10100	101	69-125	
trans-1,2-Dichloroethene	10000	150 U	8730	87	66-131	
trans-1,3-Dichloropropene	10000	160 U	9640	96	59-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4625.D

Lab ID: 240-82240-B-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	10000	21000	29200	80	68-129	
Trichlorofluoromethane	10000	250 U	7610	76	28-172	
Vinyl chloride	10000	230 U	9020	90	55-123	
Xylenes, Total	20000	120 U	19300	97	71-122	
1,2-Dibromoethane	10000	120 U	10100	101	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	10000	8510	85	7	13	57-156	
1,1,2,2-Tetrachloroethane	10000	11800	118	4	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10000	8840	88	7	35	58-137	
1,1-Dichloroethane	10000	9470	95	8	11	69-122	
1,1-Dichloroethene	10000	8840	88	4	14	62-127	
1,2,4-Trichlorobenzene	10000	9860	99	8	35	26-138	
1,2-Dibromo-3-Chloropropane	10000	10100	101	4	31	48-130	
1,2-Dichlorobenzene	10000	10700	107	9	19	70-120	
1,2-Dichloroethane	10000	8180	82	8	11	64-138	
1,2-Dichloropropane	10000	10500	105	6	12	72-131	
1,3-Dichlorobenzene	10000	10400	104	8	18	71-120	
1,4-Dichlorobenzene	10000	10300	103	6	17	72-120	
2-Butanone (MEK)	20000	17600	88	4	23	34-153	
2-Hexanone	20000	20700	103	6	12	21-184	
4-Methyl-2-pentanone (MIBK)	20000	18800	94	6	16	53-147	
Acetone	20000	12500	63	4	35	19-133	
Benzene	10000	9760	98	9	10	69-127	
Bromoform	10000	9520	95	9	13	61-135	
Bromomethane	10000	8200	82	11	35	10-148	
Carbon disulfide	10000	9270	93	6	18	46-143	
Carbon tetrachloride	10000	8100	81	4	17	53-175	
Chlorobenzene	10000	10800	108	10	12	76-120	
Dibromochloromethane	10000	10100	101	8	15	62-131	
Chloroethane	10000	9350	93	4	35	10-141	
Chloroform	10000	8480	85	7	11	74-125	
Chloromethane	10000	9000	90	8	25	34-127	
cis-1,2-Dichloroethene	10000	9080	91	6	11	69-127	
cis-1,3-Dichloropropene	10000	9520	95	8	13	68-120	
Dichlorodifluoromethane	10000	8310	83	10	34	45-130	
Bromodichloromethane	10000	8560	86	6	13	75-128	
Ethylbenzene	10000	10800	108	8	15	72-121	
Isopropylbenzene	10000	9970	100	9	16	70-132	
Methyl tert-butyl ether	10000	8550	85	7	12	67-125	
Methylene Chloride	10000	8830	88	8	12	52-137	
m-Xylene & p-Xylene	10000	10700	107	8	15	70-121	
o-Xylene	10000	10400	104	9	15	71-125	
Styrene	10000	10500	105	10	14	74-125	
Tetrachloroethene	10000	10900	109	3	18	69-126	
Toluene	10000	11100	111	9	14	69-125	
trans-1,2-Dichloroethene	10000	9280	93	6	11	66-131	
trans-1,3-Dichloropropene	10000	10500	105	8	14	59-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4626.D

Lab ID: 240-82240-B-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	10000	30400	92	4	12	68-129	E
Trichlorofluoromethane	10000	7590	76	0	26	28-172	
Vinyl chloride	10000	9380	94	4	12	55-123	
Xylenes, Total	20000	21100	106	9	14	71-122	
1,2-Dibromoethane	10000	10700	107	7	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab File ID: UXM4616.D Lab Sample ID: MB 240-287405/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/17/2017 10:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-287405/4	UXM4613.D	07/17/2017 09:34
	240-82240-B-2 MS	UXM4625.D	07/17/2017 14:43
	240-82240-B-2 MSD	UXM4626.D	07/17/2017 15:06
TB-071417	240-82392-1	UXM4632.D	07/17/2017 17:26
WC-MRC-F-071317	240-82392-2	UXM4633.D	07/17/2017 17:49

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	STDA9 240-272263/13	UXM1395.D	03/29/2017	16:47
	STDA9 240-272263/14	UXM1396.D	03/29/2017	17:10
	STDA9 240-272263/15	UXM1397.D	03/29/2017	17:33
	STDA9 240-272263/16	UXM1398.D	03/29/2017	17:55
	STDA9 240-272263/17	UXM1399.D	03/29/2017	18:18
	STDA9 240-272263/18	UXM1400.D	03/29/2017	18:41
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272263/21	UXM1403.D	03/29/2017	19:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab File ID: BFB5335.D BFB Injection Date: 07/17/2017

Instrument ID: A3UX16 BFB Injection Time: 08:29

Analysis Batch No.: 287405

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.8	
75	30.0 - 60.0 % of mass 95	44.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.9) 1
174	50.0 - 120.00 % of mass 95	74.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.2) 1
176	95.0 - 101.0 % of mass 174	72.5	(97.5) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-287405/3	UXM4612.D	07/17/2017	09:11
	LCS 240-287405/4	UXM4613.D	07/17/2017	09:34
	CCV 240-287405/5	UXM4614.D	07/17/2017	09:57
	MB 240-287405/7	UXM4616.D	07/17/2017	10:44
	240-82240-B-2 MS	UXM4625.D	07/17/2017	14:43
	240-82240-B-2 MSD	UXM4626.D	07/17/2017	15:06
TB-071417	240-82392-1	UXM4632.D	07/17/2017	17:26
WC-MRC-F-071317	240-82392-2	UXM4633.D	07/17/2017	17:49

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272263/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-287405/3		1020980	5.25	740336	7.93	404752	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: CCVIS 240-287405/3 Date Analyzed: 07/17/2017 09:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4612.D Heated Purge: (Y/N) N

Calibration ID: 40354

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1020980	5.25	740336	7.93	404752	10.16
UPPER LIMIT		2041960	5.75	1480672	8.43	809504	10.66
LOWER LIMIT		510490	4.75	370168	7.43	202376	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-287405/4		933741	5.24	673259	7.92	360406	10.16
CCV 240-287405/5		918148	5.24	672494	7.92	342833	10.16
MB 240-287405/7		869619	5.24	648874	7.92	326285	10.16
240-82240-B-2 MS		850245	5.24	623578	7.92	326761	10.16
240-82240-B-2 MSD		849700	5.24	615547	7.92	333076	10.16
240-82392-1	TB-071417	813327	5.25	604366	7.92	303508	10.16
240-82392-2	WC-MRC-F-071317	800631	5.24	612734	7.92	301512	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: TB-071417 | Lab Sample ID: 240-82392-1

Matrix: Water | Lab File ID: UXM4632.D

Analysis Method: 8260C | Date Collected: 07/14/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.3	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: TB-071417 | Lab Sample ID: 240-82392-1

Matrix: Water | Lab File ID: UXM4632.D

Analysis Method: 8260C | Date Collected: 07/14/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: TB-071417 | Lab Sample ID: 240-82392-1

Matrix: Water | Lab File ID: UXM4632.D

Analysis Method: 8260C | Date Collected: 07/14/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: WC-MRC-F-071317 | Lab Sample ID: 240-82392-2

Matrix: Water | Lab File ID: UXM4633.D

Analysis Method: 8260C | Date Collected: 07/13/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:49

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	23	U	50	23
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	16	U	50	16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21	U	50	21
75-34-3	1,1-Dichloroethane	13	U	50	13
75-35-4	1,1-Dichloroethene	14	U	50	14
563-58-6	1,1-Dichloropropene	14	U	50	14
87-61-6	1,2,3-Trichlorobenzene	18	U	50	18
96-18-4	1,2,3-Trichloropropane	27	U	50	27
526-73-8	1,2,3-Trimethylbenzene	11	U	250	11
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
95-63-6	1,2,4-Trimethylbenzene	12	U	50	12
96-12-8	1,2-Dibromo-3-Chloropropane	24	U	100	24
95-50-1	1,2-Dichlorobenzene	13	U	50	13
107-06-2	1,2-Dichloroethane	15	U	50	15
78-87-5	1,2-Dichloropropane	15	U	50	15
541-73-1	1,3-Dichlorobenzene	16	U	50	16
142-28-9	1,3-Dichloropropane	15	U	50	15
106-46-7	1,4-Dichlorobenzene	12	U	50	12
594-20-7	2,2-Dichloropropane	17	U	50	17
78-93-3	2-Butanone (MEK)	51	U	500	51
110-75-8	2-Chloroethyl vinyl ether	33	U	500	33
95-49-8	2-Chlorotoluene	14	U	50	14
591-78-6	2-Hexanone	62	U	500	62
106-43-4	4-Chlorotoluene	12	U	50	12
99-87-6	p-Isopropyltoluene	15	U	50	15
108-10-1	4-Methyl-2-pentanone (MIBK)	36	U	500	36
67-64-1	Acetone	88	U	500	88
71-43-2	Benzene	14	U	50	14
108-86-1	Bromobenzene	16	U	50	16
75-25-2	Bromoform	22	U	50	22
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	17	U	50	17
56-23-5	Carbon tetrachloride	18	U	50	18
108-90-7	Chlorobenzene	16	U	50	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: WC-MRC-F-071317 | Lab Sample ID: 240-82392-2

Matrix: Water | Lab File ID: UXM4633.D

Analysis Method: 8260C | Date Collected: 07/13/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:49

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	13	U	50	13
75-00-3	Chloroethane	21	U	50	21
67-66-3	Chloroform	16	U	50	16
74-87-3	Chloromethane	22	U	50	22
156-59-2	cis-1,2-Dichloroethene	15	U	50	15
10061-01-5	cis-1,3-Dichloropropene	13	U	50	13
74-95-3	Dibromomethane	23	U	50	23
74-97-5	Bromochloromethane	24	U	50	24
75-71-8	Dichlorodifluoromethane	25	U	50	25
75-27-4	Bromodichloromethane	15	U	50	15
75-65-0	tert-Butyl alcohol (TBA)	230	U	2500	230
100-41-4	Ethylbenzene	13	U	50	13
87-68-3	Hexachlorobutadiene	18	U	50	18
108-20-3	Diisopropyl ether	22	U	500	22
98-82-8	Isopropylbenzene	11	U	50	11
1634-04-4	Methyl tert-butyl ether	14	U	50	14
75-09-2	Methylene Chloride	27	U	50	27
179601-23-1	m-Xylene & p-Xylene	12	U	100	12
91-20-3	Naphthalene	13	U	50	13
104-51-8	n-Butylbenzene	11	U	50	11
103-65-1	N-Propylbenzene	23	U	50	23
95-47-6	o-Xylene	14	U	50	14
135-98-8	sec-Butylbenzene	14	U	50	14
100-42-5	Styrene	12	U	50	12
994-05-8	Tert-amyl methyl ether	15	U	250	15
637-92-3	Ethyl t-butyl ether	18	U	250	18
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	12	U	50	12
156-60-5	trans-1,2-Dichloroethene	15	U	50	15
10061-02-6	trans-1,3-Dichloropropene	16	U	50	16
79-01-6	Trichloroethene	1600		50	17
75-69-4	Trichlorofluoromethane	25	U	50	25
108-05-4	Vinyl acetate	14	U	100	14
75-01-4	Vinyl chloride	23	U	50	23
1330-20-7	Xylenes, Total	12	U	100	12
98-06-6	tert-Butylbenzene	13	U	50	13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: WC-MRC-F-071317 | Lab Sample ID: 240-82392-2

Matrix: Water | Lab File ID: UXM4633.D

Analysis Method: 8260C | Date Collected: 07/13/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 17:49

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	12	U	50	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	87		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Bromochloromethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Bromodichloromethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
1,2-Dibromoethane	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
p-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
tert-Butyl alcohol (TBA)	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Bromochloromethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Bromodichloromethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Dibromochloromethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
p-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0364 0.0272	0.0292	0.0281	0.0279	0.0273	Ave		0.0293				12.0		20.0			
Diisopropyl ether	0.2418 0.2884	0.2575	0.2673	0.2841	0.2839	Ave		0.2705				6.8		20.0			
2-Chloro-1,3-butadiene	0.4241 0.5251	0.4918	0.4931	0.5258	0.5135	Ave		0.4956				7.7		20.0			
Ethyl t-butyl ether	0.8941 0.9713	0.9046	0.9209	0.9620	0.9424	Ave		0.9325				3.3		20.0			
Propionitrile	0.0298 0.0298	0.0331	0.0301	0.0299	0.0302	Ave		0.0305				4.2		20.0			
Ethyl acetate	0.1909 0.1703	0.1752	0.1746	0.1791	0.1739	Ave		0.1773				4.1		20.0			
Methacrylonitrile	0.1327 0.1386	0.1382	0.1332	0.1371	0.1384	Ave		0.1364				2.0		20.0			
Tert-amyl methyl ether	0.8109 0.9359	0.8102	0.8582	0.8930	0.8990	Ave		0.8679				5.8		20.0			
n-Butanol	+++++ 0.0056	0.0040	0.0048	0.0053	0.0055	Ave		0.0050				13.3		20.0			
Ethyl acrylate	0.2249 0.2518	0.2575	0.2408	0.2598	0.2476	Ave		0.2470				5.2		20.0			
Methyl methacrylate	0.1717 0.1935	0.1952	0.1866	0.1924	0.1935	Ave		0.1888				4.7		20.0			
2-Nitropropane	0.0546 0.0638	0.0533	0.0534	0.0600	0.0619	Ave		0.0578				8.0		20.0			
n-Butyl acetate	0.3417 0.3317	0.3093	0.3517	0.3464	0.3372	Ave		0.3363				4.5		20.0			
1-Chlorohexane	0.4194 0.4316	0.4623	0.3987	0.4101	0.4141	Ave		0.4227				5.3		20.0			
Cyclohexanone	+++++ 0.0148	0.0137	0.0131	0.0139	0.0145	Ave		0.0140				4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1893 0.2532	0.1972	0.2128	0.2350	0.2433	Lin1	-0.090	0.2457							0.9980		0.9900
1,2,3-Trimethylbenzene	2.3483 2.9147	2.3254	2.5627	2.7758	2.7767	Ave		2.6173				9.4		20.0			
Benzyl chloride	0.1883 0.3047	0.1975	0.2323	0.2690	0.2821	Lin1	-0.082	0.2894							0.9950		0.9900
1,3,5-Trichlorobenzene	0.6899 0.8706	0.6788	0.7454	0.8135	0.8067	Ave		0.7675				9.9		20.0			
2-Methylnaphthalene	0.3129 0.5782	0.3754	0.4117	0.4892	0.5380	Lin1	-0.355	0.5453							0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	6626 616786	10483	98845	200908	404822	5.00 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	4401 654948	9244	93982	204572	420896	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7720 1192751	17656	173376	378581	761346	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl t-butyl ether	FB	Ave	16275 2205969	32473	323811	692599	1397092	0.500 60.0	1.00	10.0	20.0	40.0
Propionitrile	FB	Ave	5430 676312	11871	105868	215525	447369	5.00 600	10.0	100	200	400
Ethyl acetate	FB	Ave	6948 773738	12578	122769	257931	515707	1.00 120	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Ave	24149 3147206	49625	468368	986832	2052179	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	14761 2125641	29084	301763	642905	1332793	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	+++++ 318420	3558	42107	95467	202844	+++++ 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4093 571908	9244	84671	187018	367012	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	6251 878953	14011	131247	277118	573813	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1988 289942	3826	37570	86406	183435	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	6219 753321	11102	123671	249402	499918	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	6651 803253	13821	117831	250734	514953	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 156911	2408	22547	48539	103323	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Lin1	6006 942593	11793	125799	287390	605017	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	21146 3084356	40886	440474	970688	1982895	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1696 322434	3473	39933	94075	201482	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	6212 921325	11935	128118	284477	576104	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	5635 1223729	13202	141522	342142	768353	1.00 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
tert-Butyl alcohol (TBA)	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Bromochloromethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Bromodichloromethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Dibromochloromethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
1,2-Dibromoethane	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
p-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Diisopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Ethyl t-butyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Lin1		0.2305		0.0379	0.0400	-5.3	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2277	0.1000	0.0144	0.0200	-28.1*	20.0
Chloromethane	Ave	0.3878	0.3195	0.1000	0.0165	0.0200	-17.6	20.0
Vinyl chloride	Ave	0.3718	0.3167	0.1000	0.0170	0.0200	-14.8	20.0
Butadiene	Ave	0.2937	0.2954		0.0201	0.0200	0.6	20.0
Bromomethane	Ave	0.2332	0.1828	0.0500	0.0157	0.0200	-21.6*	20.0
Chloroethane	Ave	0.2186	0.1954	0.0500	0.0179	0.0200	-10.6	20.0
Dichlorofluoromethane	Ave	0.5919	0.4334		0.0146	0.0200	-26.8*	20.0
Trichlorofluoromethane	Ave	0.4159	0.2825	0.1000	0.0136	0.0200	-32.1*	20.0
Ethyl ether	Ave	0.2501	0.2093		0.0167	0.0200	-16.3	20.0
Acrolein	Ave	0.0337	0.0199		0.0590	0.100	-41.0	50.0
1,1-Dichloroethene	Ave	0.2878	0.2354	0.1000	0.0164	0.0200	-18.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1577	0.0500	0.0178	0.0200	-10.8	20.0
Acetone	Lin1		0.0674	0.0100	0.0311	0.0400	-22.4	50.0
Iodomethane	Ave	0.4621	0.3782		0.0164	0.0200	-18.2	20.0
Carbon disulfide	Ave	0.9514	0.8772	0.1000	0.0184	0.0200	-7.8	20.0
3-Chloro-1-propene	Ave	0.2013	0.1806		0.0179	0.0200	-10.3	20.0
Methyl acetate	Ave	0.1624	0.1475	0.1000	0.0363	0.0400	-9.1	20.0
Methylene Chloride	Lin1		0.2901	0.1000	0.0171	0.0200	-14.5	50.0
tert-Butyl alcohol (TBA)	Lin1		0.0167		0.171	0.200	-14.5	50.0
Acrylonitrile	Ave	0.0864	0.0800		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2756	0.1000	0.0174	0.0200	-12.8	20.0
Methyl tert-butyl ether	Ave	0.8308	0.6762	0.1000	0.0163	0.0200	-18.6	20.0
Hexane	Ave	0.2897	0.2779		0.0192	0.0200	-4.1	20.0
1,1-Dichloroethane	Ave	0.5224	0.4698	0.2000	0.0180	0.0200	-10.1	20.0
Vinyl acetate	Ave	0.4093	0.4313		0.0211	0.0200	5.4	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3009	0.1000	0.0171	0.0200	-14.5	20.0
2,2-Dichloropropane	Ave	0.3598	0.2959		0.0164	0.0200	-17.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0839	0.0100	0.0339	0.0400	-15.2	20.0
Bromochloromethane	Ave	0.1468	0.1285		0.0175	0.0200	-12.4	20.0
Tetrahydrofuran	Ave	0.0577	0.0592		0.0410	0.0400	2.6	20.0
Chloroform	Ave	0.5317	0.4281	0.2000	0.0161	0.0200	-19.5	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3429	0.1000	0.0157	0.0200	-21.5*	20.0
Cyclohexane	Ave	0.4257	0.3891	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3946	0.3674		0.0186	0.0200	-6.9	20.0
Carbon tetrachloride	Ave	0.3605	0.2849	0.1000	0.0158	0.0200	-21.0*	20.0
Isobutyl alcohol	Ave	0.0063	0.0056		0.442	0.500	-11.6	20.0
1,2-Dichloroethane	Ave	0.3955	0.3096	0.1000	0.0157	0.0200	-21.7*	20.0
Benzene	Ave	1.238	1.122	0.5000	0.0181	0.0200	-9.4	20.0
n-Heptane	Lin1		0.1355		0.0173	0.0200	-13.6	20.0
Trichloroethene	Ave	0.3129	0.2821	0.1500	0.0180	0.0200	-9.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3189	0.1000	0.0160	0.0200	-20.1*	20.0
1,2-Dichloropropane	Ave	0.2764	0.2660	0.1000	0.0193	0.0200	-3.7	20.0
Dibromomethane	Ave	0.1648	0.1397		0.0170	0.0200	-15.2	20.0
1,4-Dioxane	Ave	0.0024	0.0022		0.369	0.400	-7.8	50.0
Bromodichloromethane	Ave	0.3799	0.3202	0.1500	0.0169	0.0200	-15.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1393		0.0395	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4079	0.1500	0.0178	0.0200	-10.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1797	0.0500	0.0352	0.0400	-12.0	20.0
Toluene	Ave	1.523	1.555	0.4000	0.0204	0.0200	2.1	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4758	0.1000	0.0204	0.0200	2.2	20.0
Ethyl methacrylate	Ave	0.3726	0.4082		0.0219	0.0200	9.5	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2760	0.1000	0.0208	0.0200	4.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.5085		0.0213	0.0200	6.4	20.0
Tetrachloroethene	Ave	0.2566	0.2600	0.1500	0.0203	0.0200	1.3	20.0
2-Hexanone	Ave	0.1699	0.1645	0.0500	0.0387	0.0400	-3.2	20.0
Dibromochloromethane	Ave	0.3007	0.2910		0.0194	0.0200	-3.2	20.0
1,2-Dibromoethane	Ave	0.2584	0.2614		0.0202	0.0200	1.2	20.0
Chlorobenzene	Ave	0.9683	0.9939	0.3000	0.0205	0.0200	2.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3110		0.0185	0.0200	-7.4	20.0
Ethylbenzene	Ave	0.5186	0.5242		0.0202	0.0200	1.1	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6419		0.0196	0.0200	-2.2	20.0
o-Xylene	Ave	0.6658	0.6429		0.0193	0.0200	-3.4	20.0
Styrene	Ave	1.131	1.112	0.3000	0.0197	0.0200	-1.7	20.0
Bromoform	Ave	0.1830	0.1715	0.1000	0.0187	0.0200	-6.3	20.0
Isopropylbenzene	Ave	1.648	1.493	0.1000	0.0181	0.0200	-9.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6198	0.3000	0.0213	0.0200	6.6	20.0
Bromobenzene	Ave	0.6921	0.6873		0.0199	0.0200	-0.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1856		0.0207	0.0200	3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1632		0.0202	0.0200	0.8	20.0
N-Propylbenzene	Ave	0.7108	0.7363		0.0207	0.0200	3.6	20.0
2-Chlorotoluene	Ave	0.6372	0.6556		0.0206	0.0200	2.9	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.228		0.0198	0.0200	-1.0	20.0
4-Chlorotoluene	Ave	0.6808	0.7235		0.0213	0.0200	6.3	20.0
tert-Butylbenzene	Ave	1.832	1.846		0.0202	0.0200	0.8	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.382		0.0199	0.0200	-0.6	20.0
sec-Butylbenzene	Ave	2.517	2.390		0.0190	0.0200	-5.0	20.0
1,3-Dichlorobenzene	Ave	1.358	1.325	0.6000	0.0195	0.0200	-2.4	20.0
p-Isopropyltoluene	Ave	2.194	2.096		0.0191	0.0200	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.421	1.351	0.5000	0.0190	0.0200	-5.0	20.0
n-Butylbenzene	Ave	1.821	1.710		0.0188	0.0200	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.283	1.246	0.4000	0.0194	0.0200	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCVIS 240-287405/3 Calibration Date: 07/17/2017 09:11

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM4612.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0983	0.0500	0.0190	0.0200	-4.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6331	0.2000	0.0193	0.0200	-3.5	50.0
Hexachlorobutadiene	Ave	0.2651	0.2148		0.0162	0.0200	-19.0	20.0
Naphthalene	Ave	1.583	1.511		0.0191	0.0200	-4.5	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5357		0.0197	0.0200	-1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2283		0.0172	0.0200	-14.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2589		0.0160	0.0200	-20.0	20.0
Toluene-d8 (Surr)	Ave	1.277	1.322		0.0207	0.0200	3.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4924		0.0196	0.0200	-1.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287405/5 Calibration Date: 07/17/2017 09:57

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM4614.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0266		0.181	0.200	-9.3	20.0
Diisopropyl ether	Ave	0.2705	0.2317		0.0171	0.0200	-14.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.3779		0.0153	0.0200	-23.7*	20.0
Ethyl t-butyl ether	Ave	0.9325	0.7460		0.0160	0.0200	-20.0	20.0
Propionitrile	Ave	0.0305	0.0285		0.187	0.200	-6.5	20.0
Ethyl acetate	Ave	0.1773	0.1689		0.0381	0.0400	-4.7	50.0
Methacrylonitrile	Ave	0.1364	0.1247		0.183	0.200	-8.6	20.0
Tert-amyl methyl ether	Ave	0.8679	0.6958		0.0160	0.0200	-19.8	20.0
n-Butanol	Ave	0.0050	0.0047		0.471	0.500	-5.8	20.0
Ethyl acrylate	Ave	0.2470	0.2500		0.0202	0.0200	1.2	20.0
Methyl methacrylate	Ave	0.1888	0.1710		0.0362	0.0400	-9.4	20.0
2-Nitropropane	Ave	0.0578	0.0399		0.0276	0.0400	-31.1*	20.0
n-Butyl acetate	Ave	0.3363	0.2809		0.0167	0.0200	-16.5	20.0
1-Chlorohexane	Ave	0.4227	0.3673		0.0174	0.0200	-13.1	20.0
Cyclohexanone	Ave	0.0140	0.0134		0.191	0.200	-4.4	20.0
Pentachloroethane	Lin1		0.2049		0.0369	0.0400	-7.6	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.402		0.0184	0.0200	-8.2	20.0
Benzyl chloride	Lin1		0.2446		0.0199	0.0200	-0.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.6936		0.0181	0.0200	-9.6	20.0
2-Methylnaphthalene	Lin1		0.4089		0.0306	0.0400	-23.4*	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287405/7

Matrix: Water | Lab File ID: UXM4616.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-287405/7

Matrix: Water Lab File ID: UXM4616.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/17/2017 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 287405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	19.4		1.0	0.46
71-55-6	1,1,1-Trichloroethane	16.0		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	22.7		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17.7		1.0	0.41
75-34-3	1,1-Dichloroethane	18.5		1.0	0.25
75-35-4	1,1-Dichloroethene	16.7		1.0	0.27
563-58-6	1,1-Dichloropropene	18.4		1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	20.4		1.0	0.35
96-18-4	1,2,3-Trichloropropane	21.9		1.0	0.54
120-82-1	1,2,4-Trichlorobenzene	19.7		1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	20.7		1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	20.7		2.0	0.47
95-50-1	1,2-Dichlorobenzene	20.7		1.0	0.26
107-06-2	1,2-Dichloroethane	16.0		1.0	0.30
78-87-5	1,2-Dichloropropane	20.3		1.0	0.30
541-73-1	1,3-Dichlorobenzene	20.0		1.0	0.32
142-28-9	1,3-Dichloropropane	22.1		1.0	0.29
106-46-7	1,4-Dichlorobenzene	19.9		1.0	0.23
594-20-7	2,2-Dichloropropane	17.4		1.0	0.34
78-93-3	2-Butanone (MEK)	35.4		10	1.0
110-75-8	2-Chloroethyl vinyl ether	19.8		10	0.65
95-49-8	2-Chlorotoluene	21.8		1.0	0.28
591-78-6	2-Hexanone	42.0		10	1.2
106-43-4	4-Chlorotoluene	21.7		1.0	0.23
99-87-6	p-Isopropyltoluene	20.0		1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	37.2		10	0.71
67-64-1	Acetone	25.1		10	1.8
71-43-2	Benzene	18.6		1.0	0.28
108-86-1	Bromobenzene	21.0		1.0	0.31
75-25-2	Bromoform	18.9		1.0	0.43
74-83-9	Bromomethane	16.3		1.0	0.42
75-15-0	Carbon disulfide	18.1		1.0	0.34
56-23-5	Carbon tetrachloride	15.4		1.0	0.35
108-90-7	Chlorobenzene	20.4		1.0	0.32
124-48-1	Dibromochloromethane	20.0		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287405/4

Matrix: Water | Lab File ID: UXM4613.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	18.7		1.0	0.41
67-66-3	Chloroform	16.6		1.0	0.31
74-87-3	Chloromethane	17.7		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	17.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	18.7		1.0	0.26
74-95-3	Dibromomethane	16.5		1.0	0.46
74-97-5	Bromochloromethane	17.9		1.0	0.47
75-71-8	Dichlorodifluoromethane	17.4		1.0	0.50
75-27-4	Bromodichloromethane	16.9		1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	181		50	4.6
100-41-4	Ethylbenzene	20.5		1.0	0.26
87-68-3	Hexachlorobutadiene	18.1		1.0	0.36
98-82-8	Isopropylbenzene	18.8		1.0	0.21
1634-04-4	Methyl tert-butyl ether	17.0		1.0	0.27
75-09-2	Methylene Chloride	16.9		1.0	0.53
179601-23-1	m-Xylene & p-Xylene	20.1		2.0	0.24
91-20-3	Naphthalene	20.3		1.0	0.25
104-51-8	n-Butylbenzene	19.6		1.0	0.21
103-65-1	N-Propylbenzene	21.6		1.0	0.45
95-47-6	o-Xylene	20.1		1.0	0.28
135-98-8	sec-Butylbenzene	19.8		1.0	0.27
100-42-5	Styrene	19.8		1.0	0.23
127-18-4	Tetrachloroethene	20.2		1.0	0.30
108-88-3	Toluene	21.0		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	17.9		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	20.7		1.0	0.31
79-01-6	Trichloroethene	17.4		1.0	0.33
75-69-4	Trichlorofluoromethane	15.2		1.0	0.50
108-05-4	Vinyl acetate	22.8		2.0	0.28
75-01-4	Vinyl chloride	18.1		1.0	0.45
1330-20-7	Xylenes, Total	40.2		2.0	0.24
98-06-6	tert-Butylbenzene	20.2		1.0	0.26
106-93-4	1,2-Dibromoethane	20.7		1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-287405/4

Matrix: Water Lab File ID: UXM4613.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/17/2017 09:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 287405 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	7930		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11400		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9490		500	210
75-34-3	1,1-Dichloroethane	8780		500	130
75-35-4	1,1-Dichloroethene	8500		500	140
120-82-1	1,2,4-Trichlorobenzene	9080		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	9730		1000	240
95-50-1	1,2-Dichlorobenzene	9840		500	130
107-06-2	1,2-Dichloroethane	7590		500	150
78-87-5	1,2-Dichloropropane	9870		500	150
541-73-1	1,3-Dichlorobenzene	9590		500	160
106-46-7	1,4-Dichlorobenzene	9660		500	120
78-93-3	2-Butanone (MEK)	17000		5000	510
591-78-6	2-Hexanone	19400		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	17700		5000	360
67-64-1	Acetone	12000		5000	880
71-43-2	Benzene	8940		500	140
75-25-2	Bromoform	8700		500	220
74-83-9	Bromomethane	7330		500	210
75-15-0	Carbon disulfide	8740		500	170
56-23-5	Carbon tetrachloride	7820		500	180
108-90-7	Chlorobenzene	9740		500	160
124-48-1	Dibromochloromethane	9360		500	130
75-00-3	Chloroethane	8950		500	210
67-66-3	Chloroform	7910		500	160
74-87-3	Chloromethane	8350		500	220
156-59-2	cis-1,2-Dichloroethene	8530		500	150
10061-01-5	cis-1,3-Dichloropropene	8820		500	130
75-71-8	Dichlorodifluoromethane	9180		500	250
75-27-4	Bromodichloromethane	8080		500	150
100-41-4	Ethylbenzene	9930		500	130
98-82-8	Isopropylbenzene	9120		500	110
1634-04-4	Methyl tert-butyl ether	7970		500	140
75-09-2	Methylene Chloride	8150		500	270
179601-23-1	m-Xylene & p-Xylene	9830		1000	120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MS

Matrix: Water | Lab File ID: UXM4625.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-47-6	o-Xylene	9480		500	140
100-42-5	Styrene	9490		500	120
127-18-4	Tetrachloroethene	10600		500	150
108-88-3	Toluene	10100		500	120
156-60-5	trans-1,2-Dichloroethene	8730		500	150
10061-02-6	trans-1,3-Dichloropropene	9640		500	160
79-01-6	Trichloroethene	29200		500	170
75-69-4	Trichlorofluoromethane	7610		500	250
75-01-4	Vinyl chloride	9020		500	230
1330-20-7	Xylenes, Total	19300		1000	120
106-93-4	1,2-Dibromoethane	10100		500	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	8510		500	120
79-34-5	1,1,2,2-Tetrachloroethane	11800		500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8840		500	210
75-34-3	1,1-Dichloroethane	9470		500	130
75-35-4	1,1-Dichloroethene	8840		500	140
120-82-1	1,2,4-Trichlorobenzene	9860		500	140
96-12-8	1,2-Dibromo-3-Chloropropane	10100		1000	240
95-50-1	1,2-Dichlorobenzene	10700		500	130
107-06-2	1,2-Dichloroethane	8180		500	150
78-87-5	1,2-Dichloropropane	10500		500	150
541-73-1	1,3-Dichlorobenzene	10400		500	160
106-46-7	1,4-Dichlorobenzene	10300		500	120
78-93-3	2-Butanone (MEK)	17600		5000	510
591-78-6	2-Hexanone	20700		5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	18800		5000	360
67-64-1	Acetone	12500		5000	880
71-43-2	Benzene	9760		500	140
75-25-2	Bromoform	9520		500	220
74-83-9	Bromomethane	8200		500	210
75-15-0	Carbon disulfide	9270		500	170
56-23-5	Carbon tetrachloride	8100		500	180
108-90-7	Chlorobenzene	10800		500	160
124-48-1	Dibromochloromethane	10100		500	130
75-00-3	Chloroethane	9350		500	210
67-66-3	Chloroform	8480		500	160
74-87-3	Chloromethane	9000		500	220
156-59-2	cis-1,2-Dichloroethene	9080		500	150
10061-01-5	cis-1,3-Dichloropropene	9520		500	130
75-71-8	Dichlorodifluoromethane	8310		500	250
75-27-4	Bromodichloromethane	8560		500	150
100-41-4	Ethylbenzene	10800		500	130
98-82-8	Isopropylbenzene	9970		500	110
1634-04-4	Methyl tert-butyl ether	8550		500	140
75-09-2	Methylene Chloride	8830		500	270
179601-23-1	m-Xylene & p-Xylene	10700		1000	120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-82240-B-2 MSD

Matrix: Water | Lab File ID: UXM4626.D

Analysis Method: 8260C | Date Collected: 07/12/2017 08:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 287405 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-47-6	o-Xylene	10400		500	140
100-42-5	Styrene	10500		500	120
127-18-4	Tetrachloroethene	10900		500	150
108-88-3	Toluene	11100		500	120
156-60-5	trans-1,2-Dichloroethene	9280		500	150
10061-02-6	trans-1,3-Dichloropropene	10500		500	160
79-01-6	Trichloroethene	30400		500	170
75-69-4	Trichlorofluoromethane	7590		500	250
75-01-4	Vinyl chloride	9380		500	230
1330-20-7	Xylenes, Total	21100		1000	120
106-93-4	1,2-Dibromoethane	10700		500	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1	UXM1395.D	DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1	UXM1396.D	DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1	UXM1397.D	DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1	UXM1398.D	DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1	UXM1399.D	DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1	UXM1400.D	DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/17/2017 08:29

Analysis Batch Number: 287405 End Date: 07/17/2017 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-287405/1		07/17/2017 08:29	1	BFB5335.D	DB-624 0.18(mm)
CCVIS 240-287405/3		07/17/2017 09:11	1	UXM4612.D	DB-624 0.18(mm)
LCS 240-287405/4		07/17/2017 09:34	1	UXM4613.D	DB-624 0.18(mm)
CCV 240-287405/5		07/17/2017 09:57	1	UXM4614.D	DB-624 0.18(mm)
MDLV 240-287405/6		07/17/2017 10:21	1		DB-624 0.18(mm)
MB 240-287405/7		07/17/2017 10:44	1	UXM4616.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 11:23	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 11:46	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:09	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:32	500		DB-624 0.18(mm)
ZZZZZ		07/17/2017 12:56	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:19	100		DB-624 0.18(mm)
ZZZZZ		07/17/2017 13:42	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 14:20	10		DB-624 0.18(mm)
240-82240-B-2 MS		07/17/2017 14:43	500	UXM4625.D	DB-624 0.18(mm)
240-82240-B-2 MSD		07/17/2017 15:06	500	UXM4626.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 15:53	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 16:16	125		DB-624 0.18(mm)
ZZZZZ		07/17/2017 16:39	250		DB-624 0.18(mm)
ZZZZZ		07/17/2017 17:03	1		DB-624 0.18(mm)
240-82392-1		07/17/2017 17:26	1	UXM4632.D	DB-624 0.18(mm)
240-82392-2		07/17/2017 17:49	50	UXM4633.D	DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:12	1		DB-624 0.18(mm)
ZZZZZ		07/17/2017 18:35	1		DB-624 0.18(mm)

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low

GC Column (2): CLP-1 (0.53 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX2 #	DCBP2 #
WC-MRC-F-071317	240-82392-2	47	16
	MB 240-287517/21-A	69	81
	LCS 240-287517/22-A	64	78

	QC LIMITS
TCX = Tetrachloro-m-xylene	21-120
DCBP = DCB Decachlorobiphenyl	10-120

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P12072010.D

Lab ID: LCS 240-287517/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	2.50	1.33	53	32-120	
Aroclor-1260	2.50	1.57	63	36-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: MB 240-287517/21-A

Matrix: Water Date Extracted: 07/17/2017 13:24

Lab File ID:(1) P12072009.D Lab File ID:(2) P12072009.D

Date Analyzed:(1) 07/20/2017 07:22 Date Analyzed:(2) 07/20/2017 07:22

Instrument ID:(1) A2HP12 Instrument ID:(2) A2HP12

GC Column:(1) CLP-2 (0.53m ID: 0.53(mm) GC Column:(2) CLP-1 (0.53m ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-287517/22-A	07/20/2017 07:39	07/20/2017 07:39
WC-MRC-F-071317	240-82392-2	07/20/2017 14:26	07/20/2017 14:26

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: STD05 240-286548/31 Date Analyzed: 07/11/2017 02:57

Instrument ID: A2HP12 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P12071031.D Heated Purge: (Y/N) N

Calibration ID: 40645

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		69556149	3.06				
UPPER LIMIT		139112298	3.56				
LOWER LIMIT		34778075	2.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-286548/34		71129588	3.07				
ICV 240-286548/35		73440018	3.06				
ICV 240-286548/36		74424296	3.07				
ICV 240-286548/37		69961488	3.07				
ICV 240-286548/38		77096236	3.06				
ICV 240-286548/39		70050753	3.06				
ICV 240-286548/40		73760447	3.06				
ICV 240-286548/41		74721110	3.06				
CCV 240-287929/3 CCVIS		75696553	3.06				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: STD05 240-286548/31 Date Analyzed: 07/11/2017 02:57

Instrument ID: A2HP12 GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P12071031.D Heated Purge: (Y/N) N

Calibration ID: 40646

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		173364630	3.64				
UPPER LIMIT		346729260	4.14				
LOWER LIMIT		86682315	3.14				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-286548/34		196384296	3.64				
ICV 240-286548/35		200368343	3.64				
ICV 240-286548/36		187591154	3.64				
ICV 240-286548/37		179053151	3.64				
ICV 240-286548/38		189462310	3.64				
ICV 240-286548/39		174789980	3.64				
ICV 240-286548/40		179603388	3.64				
ICV 240-286548/41		179457171	3.64				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: CCV 240-287929/3 Date Analyzed: 07/20/2017 05:35

Instrument ID: A2HP12 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P12072003.D Heated Purge: (Y/N) N

Calibration ID: 40645

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		75696553	3.06				
UPPER LIMIT		151393106	3.56				
LOWER LIMIT		37848277	2.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-287929/4		76731999	3.06				
CCV 240-287929/5		77343456	3.05				
CCV 240-287929/6		77500715	3.05				
CCV 240-287929/7		77123637	3.06				
MB 240-287517/21-A		77229027	3.06				
LCS 240-287517/22-A		80008470	3.06				

BNB = 1-Bromo-2-nitrobenzene
BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Sample No.: CCVIS 240-287929/29 Date Analyzed: 07/20/2017 13:15

Instrument ID: A2HP12 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): P12072029.D Heated Purge: (Y/N) N

Calibration ID: 40645

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		95600646	3.07				
UPPER LIMIT		191201292	3.57				
LOWER LIMIT		47800323	2.57				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-82392-2	WC-MRC-F-071317	93732365	3.09				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-287517/22-A

Instrument ID (1): A2HP12 Instrument ID (2): A2HP12

Date Analyzed (1): 07/20/2017 07:39 Date Analyzed (2): 07/20/2017 07:39

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	5.82	5.81	5.84	1.39	1.43	7.3
		2	6.41	6.39	6.43	1.40		
		3	7.02	7.00	7.04	1.49		
		4	7.20	7.18	7.21	1.41		
		5	7.80	7.78	7.82	1.48		
	2	1	4.87	4.85	4.89	1.34	1.33	
		2	5.38	5.36	5.40	1.32		
		3	6.01	5.99	6.03	1.18		
		4	6.18	6.16	6.20	1.38		
		5	6.72	6.70	6.73	1.44		
Aroclor-1260	1	1	9.34	9.33	9.36	1.53	1.56	0.6
		2	10.02	10.00	10.04	1.68		
		3	10.46	10.44	10.48	1.50		
		4	10.73	10.71	10.75	1.51		
		5	11.10	11.08	11.12	1.57		
	2	1	8.22	8.20	8.23	1.52	1.57	
		2	8.55	8.53	8.57	1.60		
		3	8.87	8.85	8.89	1.66		
		4	9.66	9.64	9.68	1.47		
		5	9.98	9.96	10.00	1.59		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: WC-MRC-F-071317 | Lab Sample ID: 240-82392-2

Matrix: Water | Lab File ID: P12072033.D

Analysis Method: 8082A | Date Collected: 07/13/2017 14:00

Extraction Method: 3520C | Date Extracted: 07/17/2017 13:24

Sample wt/vol: 1040(mL) | Date Analyzed: 07/20/2017 14:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 287929 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.048	U	0.096	0.048
11104-28-2	Aroclor-1221	0.087	U	0.096	0.087
11141-16-5	Aroclor-1232	0.067	U	0.096	0.067
53469-21-9	Aroclor-1242	0.058	U	0.096	0.058
12672-29-6	Aroclor-1248	0.048	U	0.096	0.048
11097-69-1	Aroclor-1254	0.029	U	0.096	0.029
11096-82-5	Aroclor-1260	0.038	U	0.096	0.038

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	47		21-120
2051-24-3	DCB Decachlorobiphenyl	16		10-120

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 18:59 Calibration End Date: 07/10/2017 20:28 Calibration ID: 40621

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/4	P12071004.D
Level 2	STD01 240-286548/5	P12071005.D
Level 3	STD02 240-286548/6	P12071006.D
Level 4	STD05 240-286548/7	P12071007.D
Level 5	STD1 240-286548/8	P12071008.D
Level 6	STD15 240-286548/9	P12071009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0274 0.0219	0.0266	0.0241	0.0224	0.0221	Lin1	0.0004	0.0217							1.0000		0.9900
PCB-1232 Peak 2	0.0208 0.0172	0.0208	0.0197	0.0179	0.0175	Lin1	0.0003	0.0172							0.9990		0.9900
PCB-1232 Peak 3	0.0426 0.0384	0.0435	0.0406	0.0378	0.0381	Lin1	0.0003	0.0380							1.0000		0.9900
PCB-1232 Peak 4	0.0176 0.0163	0.0199	0.0182	0.0166	0.0165	Lin1	0.0002	0.0163							0.9990		0.9900
PCB-1232 Peak 5	0.0208 0.0156	0.0190	0.0178	0.0161	0.0156	Lin1	0.0003	0.0154							1.0000		0.9900
PCB-1262 Peak 1	0.0670 0.0599	0.0654	0.0615	0.0588	0.0598	Lin1	0.0004	0.0593							1.0000		0.9900
PCB-1262 Peak 2	0.0857 0.0798	0.0839	0.0798	0.0773	0.0795	Lin1	0.0003	0.0790							1.0000		0.9900
PCB-1262 Peak 3	0.0773 0.0717	0.0735	0.0709	0.0691	0.0709	Lin1	0.0002	0.0707							1.0000		0.9900
PCB-1262 Peak 4	0.1586 0.1609	0.1573	0.1526	0.1515	0.1550	Lin1	0	0.1575							0.9990		0.9900
PCB-1262 Peak 5	0.0715 0.0635	0.0692	0.0645	0.0616	0.0619	Lin1	0.0005	0.0622							1.0000		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 18:59 Calibration End Date: 07/10/2017 20:28 Calibration ID: 40621

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/4	P12071004.D
Level 2	STD01 240-286548/5	P12071005.D
Level 3	STD02 240-286548/6	P12071006.D
Level 4	STD05 240-286548/7	P12071007.D
Level 5	STD1 240-286548/8	P12071008.D
Level 6	STD15 240-286548/9	P12071009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	1848397 43211057	3564411	6613109	15434561	30068564	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	1404511 33966666	2794446	5399217	12375772	23854635	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	2874515 75898217	5832788	11112019	26084151	51832203	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1188056 32154426	2670968	4991213	11418257	22385132	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	1406412 30733789	2550619	4875533	11133106	21246630	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	4524151 118324494	8772088	16858034	40551668	81375337	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	5788194 157573462	11255627	21877258	53349514	108138096	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	5221277 141526379	9857743	19425812	47689146	96402363	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	10713708 317558255	21113400	41805627	104519632	210830967	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	4825546 125451819	9287507	17676298	42511958	84139877	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 18:59 Calibration End Date: 07/10/2017 20:28 Calibration ID: 40622

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/4	P12071004.D
Level 2	STD01 240-286548/5	P12071005.D
Level 3	STD02 240-286548/6	P12071006.D
Level 4	STD05 240-286548/7	P12071007.D
Level 5	STD1 240-286548/8	P12071008.D
Level 6	STD15 240-286548/9	P12071009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0256 0.0190	0.0258	0.0243	0.0223	0.0199	Lin1	0.0005	0.0195							0.9950		0.9900
PCB-1232 Peak 2	0.0219 0.0162	0.0208	0.0198	0.0186	0.0172	Lin1	0.0004	0.0166							0.9970		0.9900
PCB-1232 Peak 3	0.0400 0.0338	0.0393	0.0382	0.0367	0.0350	Lin1	0.0004	0.0344							0.9990		0.9900
PCB-1232 Peak 4	0.0175 0.0148	0.0167	0.0175	0.0164	0.0153	Lin1	0.0002	0.0151							0.9980		0.9900
PCB-1232 Peak 5	0.0134 0.0102	0.0137	0.0145	0.0117	0.0109	Lin1	0.0003	0.0106							0.9920		0.9900
PCB-1262 Peak 1	0.0498 0.0426	0.0498	0.0503	0.0470	0.0439	Lin1	0.0006	0.0433							0.9980		0.9900
PCB-1262 Peak 2	0.0735 0.0628	0.0732	0.0727	0.0705	0.0645	Lin1	0.0009	0.0640							0.9980		0.9900
PCB-1262 Peak 3	0.0625 0.0542	0.0627	0.0630	0.0608	0.0554	Lin1	0.0007	0.0552							0.9980		0.9900
PCB-1262 Peak 4	0.1320 0.1177	0.1336	0.1366	0.1331	0.1176	Lin1	0.0014	0.1192							0.9970		0.9900
PCB-1262 Peak 5	0.0859 0.0848	0.0889	0.0890	0.0891	0.0827	Lin1	0.0003	0.0846							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 18:59 Calibration End Date: 07/10/2017 20:28 Calibration ID: 40622

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/4	P12071004.D
Level 2	STD01 240-286548/5	P12071005.D
Level 3	STD02 240-286548/6	P12071006.D
Level 4	STD05 240-286548/7	P12071007.D
Level 5	STD1 240-286548/8	P12071008.D
Level 6	STD15 240-286548/9	P12071009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	5542022 111051858	11215681	21184226	44246344	83140521	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	4731891 94630173	9028958	17262310	36798947	71989454	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	8644442 197456465	17046533	33281178	72819092	146255884	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	3786012 86153545	7271592	15272958	32434352	64033953	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	2890846 59680348	5967610	12637274	23265919	45725450	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	10780363 248371996	21649633	43840014	93262174	183502488	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	15898683 366107925	31799166	63383595	139719908	269671374	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	13531780 316122173	27246936	54903594	120611249	231351529	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	28561792 686409960	58003742	119052966	263814991	491366902	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	18577928 494741165	38625649	77567659	176666110	345707238	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 20:45 Calibration End Date: 07/10/2017 22:14 Calibration ID: 40627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/10	P12071010.D
Level 2	STD01 240-286548/11	P12071011.D
Level 3	STD02 240-286548/12	P12071012.D
Level 4	STD05 240-286548/13	P12071013.D
Level 5	STD1 240-286548/14	P12071014.D
Level 6	STD15 240-286548/15	P12071015.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0254 0.0196	0.0237	0.0220	0.0206	0.0194	Lin1	0.0004	0.0194							1.0000		0.9900
PCB-1242 Peak 2	0.0482 0.0387	0.0457	0.0431	0.0402	0.0384	Lin1	0.0006	0.0383							1.0000		0.9900
PCB-1242 Peak 3	0.0992 0.0916	0.0959	0.0916	0.0893	0.0887	Lin1	0.0004	0.0898							1.0000		0.9900
PCB-1242 Peak 4	0.0450 0.0380	0.0428	0.0401	0.0379	0.0371	Lin1	0.0004	0.0373							1.0000		0.9900
PCB-1242 Peak 5	0.0487 0.0394	0.0455	0.0423	0.0392	0.0388	Lin1	0.0006	0.0387							1.0000		0.9900
PCB-1268 Peak 1	0.2515 0.2597	0.2416	0.2420	0.2348	0.2413	Lin1	-0.001	0.2502							0.9980		0.9900
PCB-1268 Peak 2	0.2491 0.2465	0.2400	0.2352	0.2304	0.2333	Lin1	0	0.2394							0.9990		0.9900
PCB-1268 Peak 3	0.2166 0.2137	0.2071	0.2032	0.1949	0.2042	Lin1	0	0.2075							0.9990		0.9900
PCB-1268 Peak 4	0.0917 0.0858	0.0856	0.0839	0.0800	0.0819	Lin1	0.0002	0.0833							0.9990		0.9900
PCB-1268 Peak 5	0.6647 0.6912	0.6361	0.6361	0.6272	0.6548	Lin1	-0.003	0.6707							0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 20:45 Calibration End Date: 07/10/2017 22:14 Calibration ID: 40627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/10	P12071010.D
Level 2	STD01 240-286548/11	P12071011.D
Level 3	STD02 240-286548/12	P12071012.D
Level 4	STD05 240-286548/13	P12071013.D
Level 5	STD1 240-286548/14	P12071014.D
Level 6	STD15 240-286548/15	P12071015.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	1780957 40599227	3347301	6223238	14428814	27109433	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	3377124 80298024	6456090	12210268	28147830	53563422	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	6953561 189960598	13533575	25951829	62527879	123602126	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	3155070 78693569	6039787	11359879	26550486	51759339	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	3412240 81681261	6421539	11996519	27447023	54075035	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	17623665 538446255	34105188	68605860	164481884	336351136	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	17454053 511078815	33878689	66665764	161384185	325186091	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	15176888 443054826	29242410	57586098	136494169	284628662	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	6427084 177890564	12083404	23787728	56011855	114153146	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	46583290 1432868507	89807107	180309398	439289448	912649930	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 20:45 Calibration End Date: 07/10/2017 22:14 Calibration ID: 40628

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/10	P12071010.D
Level 2	STD01 240-286548/11	P12071011.D
Level 3	STD02 240-286548/12	P12071012.D
Level 4	STD05 240-286548/13	P12071013.D
Level 5	STD1 240-286548/14	P12071014.D
Level 6	STD15 240-286548/15	P12071015.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0245 0.0174	0.0234	0.0216	0.0193	0.0188	Lin1	0.0005	0.0178							0.9970		0.9900
PCB-1242 Peak 2	0.0478 0.0331	0.0458	0.0418	0.0380	0.0367	Lin1	0.0010	0.0343							0.9960		0.9900
PCB-1242 Peak 3	0.0914 0.0771	0.0940	0.0897	0.0824	0.0836	Lin1	0.0011	0.0793							0.9980		0.9900
PCB-1242 Peak 4	0.0401 0.0315	0.0416	0.0391	0.0355	0.0353	Lin1	0.0007	0.0329							0.9950		0.9900
PCB-1242 Peak 5	0.0220 0.0183	0.0229	0.0212	0.0189	0.0192	Lin1	0.0003	0.0185							0.9990		0.9900
PCB-1268 Peak 1	0.2124 0.1800	0.2109	0.1990	0.1867	0.1821	Lin1	0.0024	0.1799							1.0000		0.9900
PCB-1268 Peak 2	0.2229 0.1744	0.2159	0.2006	0.1834	0.1786	Lin1	0.0033	0.1746							0.9990		0.9900
PCB-1268 Peak 3	0.1744 0.1477	0.1736	0.1654	0.1552	0.1521	Lin1	0.0019	0.1489							0.9990		0.9900
PCB-1268 Peak 4	0.0707 0.0620	0.0706	0.0671	0.0634	0.0640	Lin1	0.0006	0.0624							1.0000		0.9900
PCB-1268 Peak 5	0.4950 0.4149	0.4864	0.4585	0.4380	0.4225	Lin1	0.0056	0.4165							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 20:45 Calibration End Date: 07/10/2017 22:14 Calibration ID: 40628

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/10	P12071010.D
Level 2	STD01 240-286548/11	P12071011.D
Level 3	STD02 240-286548/12	P12071012.D
Level 4	STD05 240-286548/13	P12071013.D
Level 5	STD1 240-286548/14	P12071014.D
Level 6	STD15 240-286548/15	P12071015.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	4972467 98739835	9435873	17725045	38441583	73300160	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	9713916 187980576	18485777	34320889	75677343	143059676	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	18583977 437452038	37961422	73688718	164193390	326259051	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	8157271 178510927	16785156	32122992	70771764	137550019	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	4482087 103996276	9260216	17388353	37719114	74738448	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	43190354 1021523803	85140066	163522194	372290471	710511609	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	45323609 989803748	87155171	164788347	365635141	697001554	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	35469374 837958014	70097932	135933488	309485204	593568083	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	14378662 351967584	28497407	55107231	126356709	249739763	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	100640544 2354607631	196383992	376729837	873178864	1648479487	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton | Job No.: 240-82392-1 | Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 | GC Column: CLP-1 (0.53 ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 22:32 | Calibration End Date: 07/11/2017 00:00 | Calibration ID: 40633

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/16	P12071016.D
Level 2	STD01 240-286548/17	P12071017.D
Level 3	STD02 240-286548/18	P12071018.D
Level 4	STD05 240-286548/19	P12071019.D
Level 5	STD1 240-286548/20	P12071020.D
Level 6	STD15 240-286548/21	P12071021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0220 0.0167	0.0207	0.0193	0.0184	0.0173	Lin1	0.0003	0.0169							0.9990		0.9900
PCB-1248 Peak 2	0.0624 0.0495	0.0588	0.0551	0.0518	0.0507	Lin1	0.0008	0.0496							1.0000		0.9900
PCB-1248 Peak 3	0.0616 0.0480	0.0577	0.0538	0.0500	0.0488	Lin1	0.0008	0.0479							1.0000		0.9900
PCB-1248 Peak 4	0.0422 0.0362	0.0405	0.0388	0.0364	0.0371	Lin1	0.0004	0.0362							1.0000		0.9900
PCB-1248 Peak 5	0.0268 0.0238	0.0277	0.0260	0.0235	0.0242	Lin1	0.0002	0.0237							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 22:32 Calibration End Date: 07/11/2017 00:00 Calibration ID: 40633

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/16	P12071016.D
Level 2	STD01 240-286548/17	P12071017.D
Level 3	STD02 240-286548/18	P12071018.D
Level 4	STD05 240-286548/19	P12071019.D
Level 5	STD1 240-286548/20	P12071020.D
Level 6	STD15 240-286548/21	P12071021.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	1566375 36265549	2992055	5561339	12867793	23673349	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	4453779 107550471	8485500	15899030	36198351	69595008	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	4393445 104365514	8328459	15529825	34940347	67018812	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	3010211 78730912	5849251	11186218	25454708	50877311	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	1912520 51802573	4001709	7492896	16463217	33155575	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton | Job No.: 240-82392-1 | Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 | GC Column: CLP-2 (0.53 ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 22:32 | Calibration End Date: 07/11/2017 00:00 | Calibration ID: 40634

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/16	P12071016.D
Level 2	STD01 240-286548/17	P12071017.D
Level 3	STD02 240-286548/18	P12071018.D
Level 4	STD05 240-286548/19	P12071019.D
Level 5	STD1 240-286548/20	P12071020.D
Level 6	STD15 240-286548/21	P12071021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0225 0.0157	0.0211	0.0200	0.0175	0.0173	Lin1	0.0004	0.0162							0.9960		0.9900
PCB-1248 Peak 2	0.0523 0.0431	0.0507	0.0489	0.0463	0.0454	Lin1	0.0006	0.0439							0.9990		0.9900
PCB-1248 Peak 3	0.0456 0.0327	0.0425	0.0392	0.0359	0.0353	Lin1	0.0008	0.0334							0.9980		0.9900
PCB-1248 Peak 4	0.0495 0.0410	0.0481	0.0460	0.0445	0.0434	Lin1	0.0005	0.0419							0.9990		0.9900
PCB-1248 Peak 5	0.0244 0.0229	0.0240	0.0237	0.0241	0.0241	Lin1	0.0001	0.0234							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2017 22:32 Calibration End Date: 07/11/2017 00:00 Calibration ID: 40634

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/16	P12071016.D
Level 2	STD01 240-286548/17	P12071017.D
Level 3	STD02 240-286548/18	P12071018.D
Level 4	STD05 240-286548/19	P12071019.D
Level 5	STD1 240-286548/20	P12071020.D
Level 6	STD15 240-286548/21	P12071021.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	4187593 82847219	7815856	14324494	30635439	57328724	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	9738858 227237395	18747598	35046543	81176353	150188002	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	8498433 172148950	15702900	28084311	63034446	116966335	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	9206837 216259505	17763941	32929885	78045588	143869021	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	4544932 120651933	8857734	16999021	42216111	79904307	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 00:18 Calibration End Date: 07/11/2017 01:46 Calibration ID: 40639

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/22	P12071022.D
Level 2	STD01 240-286548/23	P12071023.D
Level 3	STD02 240-286548/24	P12071024.D
Level 4	STD05 240-286548/25	P12071025.D
Level 5	STD1 240-286548/26	P12071026.D
Level 6	STD15 240-286548/27	P12071027.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0190 0.0107	0.0148	0.0135	0.0118	0.0110	Lin1	0.0004	0.0106							0.9990		0.9900
PCB-1221 Peak 2	0.0087 0.0067	0.0085	0.0081	0.0073	0.0069	Lin1	0.0001	0.0068							0.9980		0.9900
PCB-1221 Peak 3	0.0319 0.0255	0.0311	0.0292	0.0265	0.0257	Lin1	0.0005	0.0254							0.9990		0.9900
PCB-1254 Peak 1	0.0447 0.0374	0.0425	0.0412	0.0380	0.0370	Lin1	0.0005	0.0370							1.0000		0.9900
PCB-1254 Peak 2	0.0604 0.0532	0.0588	0.0570	0.0536	0.0524	Lin1	0.0005	0.0526							1.0000		0.9900
PCB-1254 Peak 3	0.0785 0.0754	0.0784	0.0789	0.0753	0.0748	Lin1	0.0003	0.0751							1.0000		0.9900
PCB-1254 Peak 4	0.0507 0.0557	0.0582	0.0585	0.0548	0.0546	Lin1	0	0.0554							0.9990		0.9900
PCB-1254 Peak 5	0.0824 0.0778	0.0793	0.0799	0.0766	0.0747	Lin1	0.0003	0.0763							1.0000		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton | Job No.: 240-82392-1 | Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 | GC Column: CLP-1 (0.53 ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 00:18 | Calibration End Date: 07/11/2017 01:46 | Calibration ID: 40639

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/22	P12071022.D
Level 2	STD01 240-286548/23	P12071023.D
Level 3	STD02 240-286548/24	P12071024.D
Level 4	STD05 240-286548/25	P12071025.D
Level 5	STD1 240-286548/26	P12071026.D
Level 6	STD15 240-286548/27	P12071027.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	1320100 21472657	2069368	3641949	8398183	14679952	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	604525 13510514	1195757	2180957	5185765	9295106	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	2213585 51109252	4361983	7889823	18844713	34419455	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	3108447 74971450	5962941	11129999	27005178	49523578	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	4194020 106479846	8236678	15407939	38116526	70179255	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	5452128 151084419	10990824	21330220	53560075	100207104	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	3525127 111559245	8152981	15829527	38967829	73158469	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	5726508 155769741	11120901	21609844	54482690	100070138	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 00:18 Calibration End Date: 07/11/2017 01:46 Calibration ID: 40640

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/22	P12071022.D
Level 2	STD01 240-286548/23	P12071023.D
Level 3	STD02 240-286548/24	P12071024.D
Level 4	STD05 240-286548/25	P12071025.D
Level 5	STD1 240-286548/26	P12071026.D
Level 6	STD15 240-286548/27	P12071027.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0131 0.0097	0.0118	0.0115	0.0102	0.0101	Lin1	0.0002	0.0097							0.9990		0.9900
PCB-1221 Peak 2	0.0087 0.0062	0.0082	0.0079	0.0069	0.0066	Lin1	0.0002	0.0063							0.9970		0.9900
PCB-1221 Peak 3	0.0312 0.0228	0.0304	0.0288	0.0255	0.0243	Lin1	0.0006	0.0233							0.9970		0.9900
PCB-1254 Peak 1	0.0493 0.0368	0.0470	0.0431	0.0385	0.0369	Lin1	0.0009	0.0364							0.9990		0.9900
PCB-1254 Peak 2	0.0533 0.0432	0.0514	0.0488	0.0449	0.0440	Lin1	0.0007	0.0432							1.0000		0.9900
PCB-1254 Peak 3	0.0821 0.0619	0.0753	0.0761	0.0650	0.0637	Lin1	0.0013	0.0621							0.9980		0.9900
PCB-1254 Peak 4	0.0510 0.0469	0.0509	0.0506	0.0472	0.0481	Lin1	0.0003	0.0472							1.0000		0.9900
PCB-1254 Peak 5	0.0710 0.0630	0.0701	0.0692	0.0635	0.0645	Lin1	0.0006	0.0632							1.0000		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 00:18 Calibration End Date: 07/11/2017 01:46 Calibration ID: 40640

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/22	P12071022.D
Level 2	STD01 240-286548/23	P12071023.D
Level 3	STD02 240-286548/24	P12071024.D
Level 4	STD05 240-286548/25	P12071025.D
Level 5	STD1 240-286548/26	P12071026.D
Level 6	STD15 240-286548/27	P12071027.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	2255069 48005013	4205946	7459529	17281987	32765050	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	1498325 30804648	2932049	5160687	11760181	21464738	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	5363192 113007746	10856574	18690354	43122418	78930149	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	8489505 182349960	16803421	27979691	65134413	119827608	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	9172738 214199266	18375710	31674963	76110477	142703871	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	14133518 306887013	26933798	49398535	110064087	206620739	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	8777295 232627897	18201941	32885410	79961254	156040656	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	12230491 312189888	25054301	44937066	107564714	209263603	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 02:04 Calibration End Date: 07/11/2017 03:32 Calibration ID: 40645

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/28	P12071028.D
Level 2	STD01 240-286548/29	P12071029.D
Level 3	STD02 240-286548/30	P12071030.D
Level 4	STD05 240-286548/31	P12071031.D
Level 5	STD1 240-286548/32	P12071032.D
Level 6	STD15 240-286548/33	P12071033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0276 0.0220	0.0271	0.0255	0.0244	0.0224	Lin1	0.0004	0.0222							0.9980		0.9900
PCB-1016 Peak 2	0.0550 0.0424	0.0517	0.0483	0.0472	0.0439	Lin1	0.0008	0.0430							0.9990		0.9900
PCB-1016 Peak 3	0.1137 0.1008	0.1082	0.1041	0.1062	0.1029	Lin1	0.0007	0.1016							1.0000		0.9900
PCB-1016 Peak 4	0.0503 0.0414	0.0482	0.0449	0.0447	0.0426	Lin1	0.0005	0.0418							0.9990		0.9900
PCB-1016 Peak 5	0.0552 0.0423	0.0514	0.0471	0.0458	0.0435	Lin1	0.0008	0.0425							0.9990		0.9900
PCB-1260 Peak 1	0.0777 0.0658	0.0735	0.0683	0.0698	0.0668	Lin1	0.0007	0.0660							1.0000		0.9900
PCB-1260 Peak 2	0.1185 0.1080	0.1141	0.1090	0.1107	0.1089	Lin1	0.0005	0.1081							1.0000		0.9900
PCB-1260 Peak 3	0.1313 0.1201	0.1255	0.1204	0.1225	0.1195	Lin1	0.0006	0.1197							1.0000		0.9900
PCB-1260 Peak 4	0.1639 0.1612	0.1595	0.1577	0.1629	0.1639	Lin1	0	0.1623							1.0000		0.9900
PCB-1260 Peak 5	0.0850 0.0794	0.0825	0.0794	0.0817	0.0808	Lin1	0.0002	0.0799							1.0000		0.9900
Tetrachloro-m-xylene	1.2358 1.0911	1.1874	1.1483	1.1562	1.1175	Lin1	0.0004	1.1002							1.0000		0.9900
DCB Decachlorobiphenyl	1.5252 1.1523	1.3908	1.2268	1.2287	1.1990	Lin1	0.0010	1.1579							1.0000		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 02:04 Calibration End Date: 07/11/2017 03:32 Calibration ID: 40645

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/28	P12071028.D
Level 2	STD01 240-286548/29	P12071029.D
Level 3	STD02 240-286548/30	P12071030.D
Level 4	STD05 240-286548/31	P12071031.D
Level 5	STD1 240-286548/32	P12071032.D
Level 6	STD15 240-286548/33	P12071033.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	1898538 46744587	3716098	7265139	16963233	30482501	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	3785974 90082228	7094444	13775633	32798737	59807180	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	7825325 214141216	14859740	29688863	73855211	140005534	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	3462738 88027809	6624624	12817686	31063515	57996790	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	3800172 89792349	7055794	13448292	31853614	59188924	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	5351200 139716955	10085375	19479263	48535215	90881213	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	8158623 229293518	15672285	31090104	76971850	148200696	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	9039095 255159425	17236257	34355241	85238595	162655903	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	11283173 342454356	21905506	45002379	113314806	223131796	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	5852418 168603075	11324688	22662108	56830217	110021620	0.0500 1.50	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Lin1	4252919 154497377	8151814	16379958	40211660	76054781	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Lin1	5248822 163158363	9547614	17499760	42731698	81597794	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 02:04 Calibration End Date: 07/11/2017 03:32 Calibration ID: 40646

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/28	P12071028.D
Level 2	STD01 240-286548/29	P12071029.D
Level 3	STD02 240-286548/30	P12071030.D
Level 4	STD05 240-286548/31	P12071031.D
Level 5	STD1 240-286548/32	P12071032.D
Level 6	STD15 240-286548/33	P12071033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0254 0.0203	0.0252	0.0232	0.0230	0.0205	Lin1	0.0004	0.0205							0.9970		0.9900
PCB-1016 Peak 2	0.0539 0.0389	0.0477	0.0462	0.0450	0.0384	Lin1	0.0010	0.0389							0.9960		0.9900
PCB-1016 Peak 3	0.1111 0.0911	0.0976	0.0961	0.0997	0.0863	Lin1	0.0011	0.0897							0.9970		0.9900
PCB-1016 Peak 4	0.0489 0.0379	0.0409	0.0404	0.0423	0.0368	Lin1	0.0005	0.0377							0.9980		0.9900
PCB-1016 Peak 5	0.0424 0.0296	0.0367	0.0331	0.0337	0.0280	Lin1	0.0008	0.0290							0.9960		0.9900
PCB-1260 Peak 1	0.0757 0.0630	0.0669	0.0656	0.0660	0.0580	Lin1	0.0007	0.0611							0.9970		0.9900
PCB-1260 Peak 2	0.1112 0.1011	0.1056	0.1041	0.1012	0.0965	Lin1	0.0007	0.0990							0.9990		0.9900
PCB-1260 Peak 3	0.0662 0.0586	0.0592	0.0638	0.0636	0.0574	Lin1	0.0004	0.0586							0.9980		0.9900
PCB-1260 Peak 4	0.1520 0.1310	0.1347	0.1416	0.1397	0.1256	Lin1	0.0012	0.1296							0.9980		0.9900
PCB-1260 Peak 5	0.0978 0.0875	0.0874	0.0935	0.0935	0.0850	Lin1	0.0006	0.0871							0.9990		0.9900
Tetrachloro-m-xylene	1.1380 1.0245	1.1143	1.0671	1.0930	1.0252	Lin1	0.0004	1.0276							0.9990		0.9900
DCB Decachlorobiphenyl	1.0346 0.8258	0.8980	0.8990	0.9016	0.8342	Lin1	0.0005	0.8293							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-82392-1 Analy Batch No.: 286548

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 02:04 Calibration End Date: 07/11/2017 03:32 Calibration ID: 40646

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-286548/28	P12071028.D
Level 2	STD01 240-286548/29	P12071029.D
Level 3	STD02 240-286548/30	P12071030.D
Level 4	STD05 240-286548/31	P12071031.D
Level 5	STD1 240-286548/32	P12071032.D
Level 6	STD15 240-286548/33	P12071033.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	4341179 110347534	9464484	17306793	39944878	77693954	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	9212273 211783391	17874383	34435203	78051822	145564385	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	18972262 496297303	36592421	71640628	172908457	327111869	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	8353104 206558173	15322189	30134057	73256186	139708948	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	7244552 161100969	13745724	24677208	58378861	106378835	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	12928383 343138882	25108615	48913926	114349957	219899177	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	19001322 550711163	39615696	77638498	175414522	366010446	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	11315497 319168314	22214043	47554224	110177322	217602654	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	25972650 713640323	50536560	105572603	242255077	476313468	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	16702735 476574703	32771147	69731368	162087971	322395179	0.0500 1.50	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Lin1	9719531 372030413	20895914	39778836	94742303	194414393	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Lin1	8836855 299850730	16839996	33510425	78150463	158187832	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/34 Calibration Date: 07/11/2017 03:50

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071034.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0116		1.06	1.00	5.6	20.0
PCB-1221 Peak 2	Lin1		0.0069		1.00	1.00	0.0	20.0
PCB-1221 Peak 3	Lin1		0.0265		1.02	1.00	2.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/34 Calibration Date: 07/11/2017 03:50

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071034.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.60	4.59	4.62
PCB-1221 Peak 2	4.82	4.80	4.84
PCB-1221 Peak 3	4.87	4.85	4.89

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/34 Calibration Date: 07/11/2017 03:50

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071034.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0086		0.863	1.00	-13.7	20.0
PCB-1221 Peak 2	Lin1		0.0066		1.01	1.00	1.5	20.0
PCB-1221 Peak 3	Lin1		0.0247		1.03	1.00	3.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/34 Calibration Date: 07/11/2017 03:50

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071034.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.53	5.51	5.55
PCB-1221 Peak 2	5.74	5.72	5.76
PCB-1221 Peak 3	5.83	5.81	5.85

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/35 Calibration Date: 07/11/2017 04:07

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12071035.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0221		1.00	1.00	0.2	20.0
PCB-1232 Peak 2	Lin1		0.0193		1.10	1.00	10.4	20.0
PCB-1232 Peak 3	Lin1		0.0435		1.14	1.00	13.7	20.0
PCB-1232 Peak 4	Lin1		0.0183		1.11	1.00	11.2	20.0
PCB-1232 Peak 5	Lin1		0.0181		1.15	1.00	15.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/35 Calibration Date: 07/11/2017 04:07

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12071035.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	4.87	4.85	4.89
PCB-1232 Peak 2	5.38	5.36	5.40
PCB-1232 Peak 3	6.01	5.99	6.03
PCB-1232 Peak 4	6.18	6.17	6.20
PCB-1232 Peak 5	6.72	6.70	6.74

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/35 Calibration Date: 07/11/2017 04:07

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12071035.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0216		1.08	1.00	8.0	20.0
PCB-1232 Peak 2	Lin1		0.0190		1.12	1.00	12.2	20.0
PCB-1232 Peak 3	Lin1		0.0411		1.18	1.00	18.3	20.0
PCB-1232 Peak 4	Lin1		0.0172		1.13	1.00	12.8	20.0
PCB-1232 Peak 5	Lin1		0.0125		1.16	1.00	15.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/35 Calibration Date: 07/11/2017 04:07

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12071035.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.83	5.81	5.85
PCB-1232 Peak 2	6.41	6.39	6.43
PCB-1232 Peak 3	7.02	7.01	7.04
PCB-1232 Peak 4	7.20	7.18	7.22
PCB-1232 Peak 5	7.80	7.79	7.82

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/36 Calibration Date: 07/11/2017 04:25

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12071036.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0158		0.798	1.00	-20.2*	20.0
PCB-1242 Peak 2	Lin1		0.0333		0.852	1.00	-14.8	20.0
PCB-1242 Peak 3	Lin1		0.0763		0.844	1.00	-15.6	20.0
PCB-1242 Peak 4	Lin1		0.0319		0.844	1.00	-15.6	20.0
PCB-1242 Peak 5	Lin1		0.0336		0.854	1.00	-14.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/36 Calibration Date: 07/11/2017 04:25

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12071036.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	4.88	4.86	4.90
PCB-1242 Peak 2	5.38	5.36	5.40
PCB-1242 Peak 3	6.01	5.99	6.03
PCB-1242 Peak 4	6.18	6.17	6.21
PCB-1242 Peak 5	6.72	6.70	6.74

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/36 Calibration Date: 07/11/2017 04:25

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12071036.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0167		0.913	1.00	-8.7	20.0
PCB-1242 Peak 2	Lin1		0.0311		0.880	1.00	-12.0	20.0
PCB-1242 Peak 3	Lin1		0.0697		0.865	1.00	-13.5	20.0
PCB-1242 Peak 4	Lin1		0.0281		0.834	1.00	-16.6	20.0
PCB-1242 Peak 5	Lin1		0.0167		0.889	1.00	-11.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/36 Calibration Date: 07/11/2017 04:25

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12071036.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.83	5.81	5.85
PCB-1242 Peak 2	6.41	6.39	6.43
PCB-1242 Peak 3	7.02	7.01	7.04
PCB-1242 Peak 4	7.20	7.18	7.22
PCB-1242 Peak 5	7.52	7.50	7.54

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/37 Calibration Date: 07/11/2017 04:43

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12071037.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0151		0.873	1.00	-12.7	20.0
PCB-1248 Peak 2	Lin1		0.0473		0.939	1.00	-6.1	20.0
PCB-1248 Peak 3	Lin1		0.0457		0.936	1.00	-6.4	20.0
PCB-1248 Peak 4	Lin1		0.0355		0.970	1.00	-3.0	20.0
PCB-1248 Peak 5	Lin1		0.0216		0.899	1.00	-10.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/37 Calibration Date: 07/11/2017 04:43

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12071037.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.38	5.36	5.40
PCB-1248 Peak 2	6.45	6.42	6.46
PCB-1248 Peak 3	6.72	6.70	6.74
PCB-1248 Peak 4	7.52	7.50	7.54
PCB-1248 Peak 5	8.00	7.98	8.02

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/37 Calibration Date: 07/11/2017 04:43

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12071037.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0150		0.897	1.00	-10.3	20.0
PCB-1248 Peak 2	Lin1		0.0472		1.06	1.00	6.1	20.0
PCB-1248 Peak 3	Lin1		0.0325		0.949	1.00	-5.1	20.0
PCB-1248 Peak 4	Lin1		0.0431		1.02	1.00	1.5	20.0
PCB-1248 Peak 5	Lin1		0.0202		0.858	1.00	-14.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/37 Calibration Date: 07/11/2017 04:43

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12071037.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.41	6.39	6.43
PCB-1248 Peak 2	7.02	7.00	7.04
PCB-1248 Peak 3	7.80	7.79	7.82
PCB-1248 Peak 4	8.33	8.31	8.35
PCB-1248 Peak 5	9.12	9.10	9.14

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/38 Calibration Date: 07/11/2017 05:00

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071038.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Lin1		0.0410		1.09	1.00	9.4	20.0
PCB-1254 Peak 2	Lin1		0.0574		1.08	1.00	8.2	20.0
PCB-1254 Peak 3	Lin1		0.0809		1.07	1.00	7.4	20.0
PCB-1254 Peak 4	Lin1		0.0614		1.11	1.00	10.9	20.0
PCB-1254 Peak 5	Lin1		0.0876		1.14	1.00	14.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/38 Calibration Date: 07/11/2017 05:00

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071038.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1254 Peak 1	7.20	7.18	7.21
PCB-1254 Peak 2	7.52	7.50	7.54
PCB-1254 Peak 3	7.99	7.98	8.02
PCB-1254 Peak 4	8.33	8.31	8.35
PCB-1254 Peak 5	8.87	8.86	8.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/38 Calibration Date: 07/11/2017 05:00

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071038.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Lin1		0.0398		1.07	1.00	6.9	20.0
PCB-1254 Peak 2	Lin1		0.0473		1.08	1.00	8.0	20.0
PCB-1254 Peak 3	Lin1		0.0664		1.05	1.00	4.8	20.0
PCB-1254 Peak 4	Lin1		0.0451		0.949	1.00	-5.1	20.0
PCB-1254 Peak 5	Lin1		0.0725		1.14	1.00	13.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/38 Calibration Date: 07/11/2017 05:00

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12071038.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1254 Peak 1	8.33	8.31	8.35
PCB-1254 Peak 2	8.57	8.55	8.59
PCB-1254 Peak 3	9.11	9.10	9.14
PCB-1254 Peak 4	9.39	9.38	9.42
PCB-1254 Peak 5	10.03	10.01	10.05

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/39 Calibration Date: 07/11/2017 05:18

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12071039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0193		0.852	1.00	-14.8	20.0
PCB-1016 Peak 2	Lin1		0.0411		0.937	1.00	-6.3	20.0
PCB-1016 Peak 3	Lin1		0.0952		0.930	1.00	-7.0	20.0
PCB-1016 Peak 4	Lin1		0.0393		0.927	1.00	-7.3	20.0
PCB-1016 Peak 5	Lin1		0.0390		0.898	1.00	-10.2	20.0
PCB-1260 Peak 1	Lin1		0.0572		0.856	1.00	-14.4	20.0
PCB-1260 Peak 2	Lin1		0.0928		0.854	1.00	-14.6	20.0
PCB-1260 Peak 3	Lin1		0.0959		0.796	1.00	-20.4*	20.0
PCB-1260 Peak 4	Lin1		0.1448		0.893	1.00	-10.7	20.0
PCB-1260 Peak 5	Lin1		0.0725		0.904	1.00	-9.6	20.0
Tetrachloro-m-xylene	Lin1		1.124		0.0507	0.0500	1.3	20.0
DCB Decachlorobiphenyl	Lin1		1.183		0.0502	0.0500	0.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/39 Calibration Date: 07/11/2017 05:18

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12071039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.87	4.85	4.89
PCB-1016 Peak 2	5.38	5.36	5.40
PCB-1016 Peak 3	6.01	5.99	6.03
PCB-1016 Peak 4	6.18	6.16	6.20
PCB-1016 Peak 5	6.72	6.70	6.74
PCB-1260 Peak 1	8.22	8.20	8.24
PCB-1260 Peak 2	8.55	8.53	8.57
PCB-1260 Peak 3	8.87	8.86	8.90
PCB-1260 Peak 4	9.66	9.64	9.68
PCB-1260 Peak 5	9.98	9.97	10.00
Tetrachloro-m-xylene	4.30	4.28	4.32
DCB Decachlorobiphenyl	11.15	11.13	11.17

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/39 Calibration Date: 07/11/2017 05:18

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12071039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0189		0.907	1.00	-9.3	20.0
PCB-1016 Peak 2	Lin1		0.0384		0.964	1.00	-3.6	20.0
PCB-1016 Peak 3	Lin1		0.0862		0.948	1.00	-5.2	20.0
PCB-1016 Peak 4	Lin1		0.0344		0.899	1.00	-10.1	20.0
PCB-1016 Peak 5	Lin1		0.0273		0.916	1.00	-8.4	20.0
PCB-1260 Peak 1	Lin1		0.0427		0.686	1.00	-31.4*	20.0
PCB-1260 Peak 2	Lin1		0.0789		0.790	1.00	-21.0*	20.0
PCB-1260 Peak 3	Lin1		0.0497		0.840	1.00	-16.0	20.0
PCB-1260 Peak 4	Lin1		0.1166		0.890	1.00	-11.0	20.0
PCB-1260 Peak 5	Lin1		0.0775		0.883	1.00	-11.7	20.0
Tetrachloro-m-xylene	Lin1		1.061		0.0513	0.0500	2.5	20.0
DCB Decachlorobiphenyl	Lin1		0.8669		0.0516	0.0500	3.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICV 240-286548/39 Calibration Date: 07/11/2017 05:18

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12071039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.83	5.81	5.85
PCB-1016 Peak 2	6.41	6.39	6.43
PCB-1016 Peak 3	7.02	7.00	7.04
PCB-1016 Peak 4	7.20	7.18	7.22
PCB-1016 Peak 5	7.80	7.79	7.82
PCB-1260 Peak 1	9.35	9.33	9.37
PCB-1260 Peak 2	10.02	10.01	10.04
PCB-1260 Peak 3	10.46	10.45	10.48
PCB-1260 Peak 4	10.74	10.72	10.76
PCB-1260 Peak 5	11.11	11.09	11.13
Tetrachloro-m-xylene	5.04	5.02	5.06
DCB Decachlorobiphenyl	12.19	12.17	12.21

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/3 Calibration Date: 07/20/2017 05:35

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12072003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0227		0.494	0.500	-1.2	20.0
PCB-1016 Peak 2	Lin1		0.0434		0.487	0.500	-2.6	20.0
PCB-1016 Peak 3	Lin1		0.1007		0.489	0.500	-2.3	20.0
PCB-1016 Peak 4	Lin1		0.0406		0.472	0.500	-5.6	20.0
PCB-1016 Peak 5	Lin1		0.0415		0.470	0.500	-6.0	20.0
PCB-1260 Peak 1	Lin1		0.0656		0.487	0.500	-2.7	20.0
PCB-1260 Peak 2	Lin1		0.1037		0.475	0.500	-5.0	20.0
PCB-1260 Peak 3	Lin1		0.1159		0.480	0.500	-4.1	20.0
PCB-1260 Peak 4	Lin1		0.1552		0.479	0.500	-4.2	20.0
PCB-1260 Peak 5	Lin1		0.0814		0.506	0.500	1.2	20.0
Tetrachloro-m-xylene	Lin1		1.064		0.0238	0.0250	-4.8	20.0
DCB Decachlorobiphenyl	Lin1		1.158		0.0241	0.0250	-3.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/3 Calibration Date: 07/20/2017 05:35

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12072003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.87	4.85	4.89
PCB-1016 Peak 2	5.38	5.36	5.40
PCB-1016 Peak 3	6.01	5.99	6.03
PCB-1016 Peak 4	6.18	6.16	6.20
PCB-1016 Peak 5	6.72	6.70	6.73
PCB-1260 Peak 1	8.22	8.20	8.23
PCB-1260 Peak 2	8.55	8.53	8.57
PCB-1260 Peak 3	8.87	8.85	8.89
PCB-1260 Peak 4	9.66	9.64	9.68
PCB-1260 Peak 5	9.98	9.96	10.00
Tetrachloro-m-xylene	4.30	4.28	4.32
DCB Decachlorobiphenyl	11.14	11.12	11.16

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/4 Calibration Date: 07/20/2017 05:53

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12072004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0207		0.460	0.500	-8.1	20.0
PCB-1232 Peak 2	Lin1		0.0163		0.457	0.500	-8.7	20.0
PCB-1232 Peak 3	Lin1		0.0361		0.466	0.500	-6.8	20.0
PCB-1232 Peak 4	Lin1		0.0153		0.459	0.500	-8.3	20.0
PCB-1232 Peak 5	Lin1		0.0149		0.464	0.500	-7.2	20.0
PCB-1262 Peak 1	Lin1		0.0573		0.476	0.500	-4.8	20.0
PCB-1262 Peak 2	Lin1		0.0747		0.469	0.500	-6.2	20.0
PCB-1262 Peak 3	Lin1		0.0657		0.461	0.500	-7.8	20.0
PCB-1262 Peak 4	Lin1		0.1461		0.465	0.500	-6.9	20.0
PCB-1262 Peak 5	Lin1		0.0584		0.461	0.500	-7.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/4 Calibration Date: 07/20/2017 05:53

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 18:59

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 20:28

Lab File ID: P12072004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	4.87	4.85	4.89
PCB-1232 Peak 2	5.38	5.36	5.40
PCB-1232 Peak 3	6.01	5.99	6.03
PCB-1232 Peak 4	6.18	6.16	6.20
PCB-1232 Peak 5	6.72	6.70	6.74
PCB-1262 Peak 1	8.55	8.53	8.57
PCB-1262 Peak 2	9.01	8.99	9.03
PCB-1262 Peak 3	9.29	9.28	9.31
PCB-1262 Peak 4	9.66	9.64	9.68
PCB-1262 Peak 5	10.03	10.01	10.05

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/5 Calibration Date: 07/20/2017 06:11

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12072005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0191		0.474	0.500	-5.3	20.0
PCB-1242 Peak 2	Lin1		0.0361		0.455	0.500	-9.0	20.0
PCB-1242 Peak 3	Lin1		0.0821		0.452	0.500	-9.6	20.0
PCB-1242 Peak 4	Lin1		0.0295		0.383	0.500	-23.3*	20.0
PCB-1242 Peak 5	Lin1		0.0362		0.454	0.500	-9.3	20.0
PCB-1268 Peak 1	Lin1		0.2297		0.462	0.500	-7.6	20.0
PCB-1268 Peak 2	Lin1		0.2176		0.455	0.500	-9.1	20.0
PCB-1268 Peak 3	Lin1		0.1904		0.459	0.500	-8.1	20.0
PCB-1268 Peak 4	Lin1		0.0779		0.465	0.500	-7.0	20.0
PCB-1268 Peak 5	Lin1		0.6280		0.473	0.500	-5.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/5 Calibration Date: 07/20/2017 06:11

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 20:45

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/10/2017 22:14

Lab File ID: P12072005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	4.87	4.85	4.89
PCB-1242 Peak 2	5.38	5.36	5.40
PCB-1242 Peak 3	6.01	5.99	6.03
PCB-1242 Peak 4	6.18	6.16	6.20
PCB-1242 Peak 5	6.72	6.70	6.74
PCB-1268 Peak 1	10.03	10.01	10.05
PCB-1268 Peak 2	10.07	10.05	10.09
PCB-1268 Peak 3	10.29	10.27	10.31
PCB-1268 Peak 4	10.67	10.65	10.69
PCB-1268 Peak 5	10.96	10.94	10.98

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/6 Calibration Date: 07/20/2017 06:29

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12072006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0168		0.479	0.500	-4.2	20.0
PCB-1248 Peak 2	Lin1		0.0496		0.484	0.500	-3.1	20.0
PCB-1248 Peak 3	Lin1		0.0476		0.479	0.500	-4.1	20.0
PCB-1248 Peak 4	Lin1		0.0352		0.476	0.500	-4.7	20.0
PCB-1248 Peak 5	Lin1		0.0239		0.492	0.500	-1.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/6 Calibration Date: 07/20/2017 06:29

Instrument ID: A2HP12 Calib Start Date: 07/10/2017 22:32

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 00:00

Lab File ID: P12072006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.38	5.36	5.40
PCB-1248 Peak 2	6.44	6.42	6.46
PCB-1248 Peak 3	6.71	6.70	6.73
PCB-1248 Peak 4	7.52	7.50	7.54
PCB-1248 Peak 5	7.99	7.98	8.01

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/7 Calibration Date: 07/20/2017 06:46

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12072007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0109		0.476	0.500	-4.9	20.0
PCB-1221 Peak 2	Lin1		0.0070		0.491	0.500	-1.9	20.0
PCB-1221 Peak 3	Lin1		0.0252		0.479	0.500	-4.3	20.0
PCB-1254 Peak 1	Lin1		0.0356		0.468	0.500	-6.4	20.0
PCB-1254 Peak 2	Lin1		0.0500		0.466	0.500	-6.8	20.0
PCB-1254 Peak 3	Lin1		0.0719		0.475	0.500	-5.0	20.0
PCB-1254 Peak 4	Lin1		0.0549		0.496	0.500	-0.9	20.0
PCB-1254 Peak 5	Lin1		0.0728		0.473	0.500	-5.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCV 240-287929/7 Calibration Date: 07/20/2017 06:46

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 00:18

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 01:46

Lab File ID: P12072007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.60	4.58	4.62
PCB-1221 Peak 2	4.82	4.80	4.83
PCB-1221 Peak 3	4.87	4.85	4.89
PCB-1254 Peak 1	7.19	7.18	7.21
PCB-1254 Peak 2	7.52	7.50	7.54
PCB-1254 Peak 3	7.99	7.97	8.01
PCB-1254 Peak 4	8.33	8.31	8.34
PCB-1254 Peak 5	8.87	8.85	8.89

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCVIS 240-287929/29 Calibration Date: 07/20/2017 13:15

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12072029.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0218		0.473	0.500	-5.3	20.0
PCB-1016 Peak 2	Lin1		0.0418		0.468	0.500	-6.5	20.0
PCB-1016 Peak 3	Lin1		0.0983		0.477	0.500	-4.6	20.0
PCB-1016 Peak 4	Lin1		0.0400		0.464	0.500	-7.1	20.0
PCB-1016 Peak 5	Lin1		0.0404		0.456	0.500	-8.7	20.0
PCB-1260 Peak 1	Lin1		0.0627		0.464	0.500	-7.1	20.0
PCB-1260 Peak 2	Lin1		0.1043		0.478	0.500	-4.5	20.0
PCB-1260 Peak 3	Lin1		0.1143		0.473	0.500	-5.4	20.0
PCB-1260 Peak 4	Lin1		0.1560		0.481	0.500	-3.7	20.0
PCB-1260 Peak 5	Lin1		0.0790		0.491	0.500	-1.7	20.0
Tetrachloro-m-xylene	Lin1		1.037		0.0232	0.0250	-7.4	20.0
DCB Decachlorobiphenyl	Lin1		1.122		0.0233	0.0250	-6.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: CCVIS 240-287929/29 Calibration Date: 07/20/2017 13:15

Instrument ID: A2HP12 Calib Start Date: 07/11/2017 02:04

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 07/11/2017 03:32

Lab File ID: P12072029.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.87	4.85	4.89
PCB-1016 Peak 2	5.38	5.36	5.40
PCB-1016 Peak 3	6.01	5.99	6.03
PCB-1016 Peak 4	6.18	6.16	6.20
PCB-1016 Peak 5	6.71	6.70	6.73
PCB-1260 Peak 1	8.22	8.20	8.23
PCB-1260 Peak 2	8.55	8.53	8.57
PCB-1260 Peak 3	8.87	8.85	8.89
PCB-1260 Peak 4	9.66	9.64	9.67
PCB-1260 Peak 5	9.98	9.96	10.00
Tetrachloro-m-xylene	4.30	4.28	4.32
DCB Decachlorobiphenyl	11.14	11.12	11.16

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-287517/21-A

Matrix: Water | Lab File ID: P12072009.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/17/2017 13:24

Sample wt/vol: 1000(mL) | Date Analyzed: 07/20/2017 07:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 287929 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.050	U	0.10	0.050
11104-28-2	Aroclor-1221	0.090	U	0.10	0.090
11141-16-5	Aroclor-1232	0.070	U	0.10	0.070
53469-21-9	Aroclor-1242	0.060	U	0.10	0.060
12672-29-6	Aroclor-1248	0.050	U	0.10	0.050
11097-69-1	Aroclor-1254	0.030	U	0.10	0.030
11096-82-5	Aroclor-1260	0.040	U	0.10	0.040

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	69		21-120
2051-24-3	DCB Decachlorobiphenyl	81		10-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-82392-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-287517/22-A

Matrix: Water | Lab File ID: P12072010.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/17/2017 13:24

Sample wt/vol: 1000(mL) | Date Analyzed: 07/20/2017 07:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 287929 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	1.33		0.10	0.050
11096-82-5	Aroclor-1260	1.57		0.10	0.040

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	64		21-120
2051-24-3	DCB Decachlorobiphenyl	78		10-120

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Start Date: 07/10/2017 18:59

Analysis Batch Number: 286548 End Date: 07/11/2017 05:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-286548/4 IC		07/10/2017 18:59	1	P12071004.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-286548/4 IC		07/10/2017 18:59	1	P12071004.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-286548/5 IC		07/10/2017 19:17	1	P12071005.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-286548/5 IC		07/10/2017 19:17	1	P12071005.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-286548/6 IC		07/10/2017 19:35	1	P12071006.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-286548/6 IC		07/10/2017 19:35	1	P12071006.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-286548/7 IC		07/10/2017 19:52	1	P12071007.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-286548/7 IC		07/10/2017 19:52	1	P12071007.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-286548/8 IC		07/10/2017 20:10	1	P12071008.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-286548/8 IC		07/10/2017 20:10	1	P12071008.D	CLP-2 (0.53mm) 0.53(mm)
STD15 240-286548/9 IC		07/10/2017 20:28	1	P12071009.D	CLP-1 (0.53mm) 0.53(mm)
STD15 240-286548/9 IC		07/10/2017 20:28	1	P12071009.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-286548/10 IC		07/10/2017 20:45	1	P12071010.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-286548/10 IC		07/10/2017 20:45	1	P12071010.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-286548/11 IC		07/10/2017 21:03	1	P12071011.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-286548/11 IC		07/10/2017 21:03	1	P12071011.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-286548/12 IC		07/10/2017 21:21	1	P12071012.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-286548/12 IC		07/10/2017 21:21	1	P12071012.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-286548/13 IC		07/10/2017 21:38	1	P12071013.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-286548/13 IC		07/10/2017 21:38	1	P12071013.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-286548/14 IC		07/10/2017 21:56	1	P12071014.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-286548/14 IC		07/10/2017 21:56	1	P12071014.D	CLP-2 (0.53mm) 0.53(mm)
STD15 240-286548/15 IC		07/10/2017 22:14	1	P12071015.D	CLP-1 (0.53mm) 0.53(mm)
STD15 240-286548/15 IC		07/10/2017 22:14	1	P12071015.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-286548/16 IC		07/10/2017 22:32	1	P12071016.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-286548/16 IC		07/10/2017 22:32	1	P12071016.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-286548/17 IC		07/10/2017 22:49	1	P12071017.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-286548/17 IC		07/10/2017 22:49	1	P12071017.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-286548/18 IC		07/10/2017 23:07	1	P12071018.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-286548/18 IC		07/10/2017 23:07	1	P12071018.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-286548/19 IC		07/10/2017 23:25	1	P12071019.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-286548/19 IC		07/10/2017 23:25	1	P12071019.D	CLP-2 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Start Date: 07/10/2017 18:59

Analysis Batch Number: 286548 End Date: 07/11/2017 05:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-286548/20 IC		07/10/2017 23:42	1	P12071020.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-286548/20 IC		07/10/2017 23:42	1	P12071020.D	CLP-2 (0.53mm) 0.53(mm)
STD15 240-286548/21 IC		07/11/2017 00:00	1	P12071021.D	CLP-1 (0.53mm) 0.53(mm)
STD15 240-286548/21 IC		07/11/2017 00:00	1	P12071021.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-286548/22 IC		07/11/2017 00:18	1	P12071022.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-286548/22 IC		07/11/2017 00:18	1	P12071022.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-286548/23 IC		07/11/2017 00:35	1	P12071023.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-286548/23 IC		07/11/2017 00:35	1	P12071023.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-286548/24 IC		07/11/2017 00:53	1	P12071024.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-286548/24 IC		07/11/2017 00:53	1	P12071024.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-286548/25 IC		07/11/2017 01:11	1	P12071025.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-286548/25 IC		07/11/2017 01:11	1	P12071025.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-286548/26 IC		07/11/2017 01:28	1	P12071026.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-286548/26 IC		07/11/2017 01:28	1	P12071026.D	CLP-2 (0.53mm) 0.53(mm)
STD15 240-286548/27 IC		07/11/2017 01:46	1	P12071027.D	CLP-1 (0.53mm) 0.53(mm)
STD15 240-286548/27 IC		07/11/2017 01:46	1	P12071027.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-286548/28 IC		07/11/2017 02:04	1	P12071028.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-286548/28 IC		07/11/2017 02:04	1	P12071028.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-286548/29 IC		07/11/2017 02:21	1	P12071029.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-286548/29 IC		07/11/2017 02:21	1	P12071029.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-286548/30 IC		07/11/2017 02:39	1	P12071030.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-286548/30 IC		07/11/2017 02:39	1	P12071030.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-286548/31 ICIS		07/11/2017 02:57	1	P12071031.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-286548/31 ICIS		07/11/2017 02:57	1	P12071031.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-286548/32 IC		07/11/2017 03:14	1	P12071032.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-286548/32 IC		07/11/2017 03:14	1	P12071032.D	CLP-2 (0.53mm) 0.53(mm)
STD15 240-286548/33 IC		07/11/2017 03:32	1	P12071033.D	CLP-1 (0.53mm) 0.53(mm)
STD15 240-286548/33 IC		07/11/2017 03:32	1	P12071033.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/34		07/11/2017 03:50	1	P12071034.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/34		07/11/2017 03:50	1	P12071034.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/35		07/11/2017 04:07	1	P12071035.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/35		07/11/2017 04:07	1	P12071035.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/36		07/11/2017 04:25	1	P12071036.D	CLP-1 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Start Date: 07/10/2017 18:59

Analysis Batch Number: 286548 End Date: 07/11/2017 05:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-286548/36		07/11/2017 04:25	1	P12071036.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/37		07/11/2017 04:43	1	P12071037.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/37		07/11/2017 04:43	1	P12071037.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/38		07/11/2017 05:00	1	P12071038.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/38		07/11/2017 05:00	1	P12071038.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/39		07/11/2017 05:18	1	P12071039.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/39		07/11/2017 05:18	1	P12071039.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/40		07/11/2017 05:36	1	P12071040.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/40		07/11/2017 05:36	1	P12071040.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-286548/41		07/11/2017 05:53	1	P12071041.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-286548/41		07/11/2017 05:53	1	P12071041.D	CLP-2 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: A2HP12 Start Date: 07/20/2017 05:35

Analysis Batch Number: 287929 End Date: 07/20/2017 14:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-287929/3 CCVIS		07/20/2017 05:35	1	P12072003.D	CLP-1 (0.53mm) 0.53(mm)
CCV 240-287929/3 CCVIS		07/20/2017 05:35	1		CLP-2 (0.53mm) 0.53(mm)
CCV 240-287929/4		07/20/2017 05:53	1	P12072004.D	CLP-1 (0.53mm) 0.53(mm)
CCV 240-287929/4		07/20/2017 05:53	1		CLP-2 (0.53mm) 0.53(mm)
CCV 240-287929/5		07/20/2017 06:11	1	P12072005.D	CLP-1 (0.53mm) 0.53(mm)
CCV 240-287929/5		07/20/2017 06:11	1		CLP-2 (0.53mm) 0.53(mm)
CCV 240-287929/6		07/20/2017 06:29	1	P12072006.D	CLP-1 (0.53mm) 0.53(mm)
CCV 240-287929/6		07/20/2017 06:29	1		CLP-2 (0.53mm) 0.53(mm)
CCV 240-287929/7		07/20/2017 06:46	1	P12072007.D	CLP-1 (0.53mm) 0.53(mm)
CCV 240-287929/7		07/20/2017 06:46	1		CLP-2 (0.53mm) 0.53(mm)
MB 240-287517/21-A		07/20/2017 07:22	1	P12072009.D	CLP-1 (0.53mm) 0.53(mm)
MB 240-287517/21-A		07/20/2017 07:22	1	P12072009.D	CLP-2 (0.53mm) 0.53(mm)
LCS 240-287517/22-A		07/20/2017 07:39	1	P12072010.D	CLP-1 (0.53mm) 0.53(mm)
LCS 240-287517/22-A		07/20/2017 07:39	1	P12072010.D	CLP-2 (0.53mm) 0.53(mm)
CCVIS 240-287929/29		07/20/2017 13:15	1	P12072029.D	CLP-1 (0.53mm) 0.53(mm)
CCVIS 240-287929/29		07/20/2017 13:15	1		CLP-2 (0.53mm) 0.53(mm)
240-82392-2		07/20/2017 14:26	1	P12072033.D	CLP-1 (0.53mm) 0.53(mm)
240-82392-2		07/20/2017 14:26	1	P12072033.D	CLP-2 (0.53mm) 0.53(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287517 Batch Start Date: 07/17/17 15:00 Batch Analyst: Scott, Caitlin

Batch Method: 3520C Batch End Date: 07/18/17 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	ex10PPMSPK 00027	ex2/.2SURRW 00088	
240-82392-H-2	WC-MRC-F-071317	3520C, 8082A	T	1040 mL	2 mL	5		1 mL	
MB 240-287517/21		3520C, 8082A		1000 mL	2 mL	7		1 mL	
LCS 240-287517/22		3520C, 8082A		1000 mL	2 mL	7	0.25 mL	1 mL	

Batch Notes	
Acid used for Clean Up ID	2902650
Exchange Solvent ID	2959695
pH Paper ID	2644945
Prep Solvent ID	3150014
TCLP Fluid 1 ID	2308568

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG No.:

Project: MRC Block E Downgradient

Client Sample ID	Lab Sample ID
WC-MRC-F-071317	240-82392-2

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: WC-MRC-F-071317 Lab Sample ID: 240-82392-2

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG ID.:

Matrix: Water Date Sampled: 07/13/2017 14:00

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.0033	0.050	0.0033	mg/L	U		1	6010B
7440-39-3	Barium	0.018	0.50	0.0024	mg/L	J		1	6010B
7440-43-9	Cadmium	0.00029	0.050	0.00029	mg/L	U		1	6010B
7440-47-3	Chromium	0.0014	0.050	0.00055	mg/L	J	B	1	6010B
7439-92-1	Lead	0.0019	0.050	0.0019	mg/L	U		1	6010B
7782-49-2	Selenium	0.0051	0.050	0.0051	mg/L	U		1	6010B
7440-22-4	Silver	0.00092	0.050	0.00092	mg/L	U		1	6010B
7439-97-6	Mercury	0.00013	0.0020	0.00013	mg/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICV 240-288058/4 07/20/2017 10:28				CCV 240-288058/18 07/20/2017 11:33				CCV 240-288058/30 07/20/2017 12:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	383		375	102	498		500	100	513		500	103
Barium	1500		1500	100	1950		2000	98	1980		2000	99
Cadmium	377		375	101	487		500	97	500		500	100
Chromium	1470		1500	98	1870		2000	94	1920		2000	96
Lead	373		375	99	478		500	96	494		500	99
Selenium	377		375	101	494		500	99	510		500	102
Silver	743		750	99	978		1000	98	994		1000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

ICV Source: MT6500ICV_00038 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-288058/35 07/20/2017 12:59				CCV 240-288058/97 07/20/2017 18:33				CCV 240-288058/109 07/20/2017 19:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	507		500	101	521		500	104	510		500	102
Barium	2050		2000	102	2030		2000	102	2010		2000	101
Cadmium	498		500	100	518		500	104	516		500	103
Chromium	1900		2000	95	2070		2000	104	2070		2000	104
Lead	489		500	98	500		500	100	485		500	97
Selenium	507		500	101	516		500	103	508		500	102
Silver	981		1000	98	1040		1000	104	1010		1000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

ICV Source: MTTRCRIC_00049 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	ICVL 240-288058/6 07/20/2017 10:37				CCV 240-288058/18 07/20/2017 11:33				CCV 240-288058/30 07/20/2017 12:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	14.2		15.0	95	498		500	100	513		500	103
Barium	200		200	100	1950		2000	98	1980		2000	99
Cadmium	5.27		5.00	105	487		500	97	500		500	100
Chromium	9.93		10.0	99	1870		2000	94	1920		2000	96
Lead	10.1		10.0	101	478		500	96	494		500	99
Selenium	22.4		20.0	112	494		500	99	510		500	102
Silver	10.7		10.0	107	978		1000	98	994		1000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

ICV Source: MTTRCRIC_00049 Concentration Units: ug/L

CCV Source: MTICPCCV_00104

Analyte	CCV 240-288058/35 07/20/2017 12:59				CCV 240-288058/97 07/20/2017 18:33				CCV 240-288058/109 07/20/2017 19:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	507		500	101	521		500	104	510		500	102
Barium	2050		2000	102	2030		2000	102	2010		2000	101
Cadmium	498		500	100	518		500	104	516		500	103
Chromium	1900		2000	95	2070		2000	104	2070		2000	104
Lead	489		500	98	500		500	100	485		500	97
Selenium	507		500	101	516		500	103	508		500	102
Silver	981		1000	98	1040		1000	104	1010		1000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

ICV Source: MTHgICV_00001_00202 Concentration Units: ug/L

CCV Source: MTHGCALW_01558

Analyte	ICV 240-287789/7-A 07/20/2017 08:52				CCV 240-287789/10-A 07/20/2017 10:22				CCV 240-287789/10-A 07/20/2017 10:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.25		5.00	105	4.95		5.00	99	4.83		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-287789/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01558

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.232	J	116	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-288058/5 07/20/2017 10:33		CCB 240-288058/19 07/20/2017 11:37		CCB 240-288058/31 07/20/2017 12:41		CCB 240-288058/36 07/20/2017 13:04	
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	3.3	U	3.3	U	3.3	U	3.3	U
Barium	200	2.4	U	2.4	U	2.4	U	2.4	U
Cadmium	2.0	0.29	U	0.29	U	0.29	U	0.29	U
Chromium	5.0	0.55	U	0.55	U	0.55	U	0.55	U
Lead	5.0	1.9	U	1.9	U	1.9	U	1.9	U
Selenium	15	5.1	U	5.1	U	5.1	U	5.1	U
Silver	5.0	0.92	U	0.92	U	0.92	U	0.92	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-288058/98 07/20/2017 18:38		CCB 240-288058/110 07/20/2017 19:33					
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	3.3	U	3.3	U				
Barium	200	2.4	U	2.4	U				
Cadmium	2.0	0.29	U	0.29	U				
Chromium	5.0	0.55	U	0.55	U				
Lead	5.0	1.9	U	1.9	U				
Selenium	15	5.1	U	5.1	U				
Silver	5.0	0.92	U	0.92	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-287789/8-A 07/20/2017 08:54		CCB 240-287789/11-A 07/20/2017 10:24		CCB 240-287789/11-A 07/20/2017 10:45			
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.13	U	0.13	U	0.13	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-287840/2-A

Instrument Code: I12 Batch No.: 288058

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0033	U		6010B
7440-39-3	Barium	0.0024	U		6010B
7440-43-9	Cadmium	0.00029	U		6010B
7440-47-3	Chromium	0.00055	U		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0051	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-287720/1-B

Instrument Code: I12 Batch No.: 288058

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0033	U		6010B
7440-39-3	Barium	0.0024	U		6010B
7440-43-9	Cadmium	0.00029	U		6010B
7440-47-3	Chromium	0.00111	J		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0051	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-287845/2-A

Instrument Code: H3 Batch No.: 288133

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-287720/1-C

Instrument Code: H3 Batch No.: 288133

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICSA 240-288058/8 Instrument ID: I12

Lab File ID: I12072017A.asc ICS Source: MTTRICSAW_00035

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-4.53**	
Barium		**0.224**	
Cadmium		**1.31**	
Chromium		**2.83**	
Lead		**2.96**	
Selenium		**-5.52**	
Silver		**-1.14**	
Aluminum	*500000*	*510400*	*102*
Antimony		*5.79*	
Beryllium		*0.295*	
Boron		*-1.39*	
Calcium	*500000*	*473780*	*95*
Cobalt		*-4.62*	
Copper		*-4.22*	
Iron	*200000*	*189330*	*95*
Lithium		*6.16*	
Magnesium	*500000*	*506290*	*101*
Manganese		*0.485*	
Molybdenum		*-1.82*	
Nickel		*-3.41*	
Potassium		*-11.7*	
Silicon		*18.1*	
Sodium		*13.9*	
Strontium		*14.0*	
Thallium		*2.44*	
Tin		*0.848*	
Titanium		*-1.82*	
Vanadium		*0.251*	
Zinc		*-5.00*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Lab Sample ID: ICSAB 240-288058/9 Instrument ID: I12

Lab File ID: I12072017A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Arsenic	**1000**	**1027**	**103**
Barium	**500**	**501**	**100**
Cadmium	**1000**	**1044**	**104**
Chromium	**500**	**487**	**97**
Lead	**1000**	**942**	**94**
Selenium	**1000**	**1011**	**101**
Silver	**1000**	**1092**	**109**
Aluminum	*500000*	*521850*	*104*
Antimony	*1000*	*1033*	*103*
Beryllium	*500*	*484*	*97*
Boron	*500*	*522*	*104*
Calcium	*500000*	*494390*	*99*
Cobalt	*500*	*499*	*100*
Copper	*500*	*542*	*108*
Iron	*200000*	*194390*	*97*
Lithium	*500*	*538*	*108*
Magnesium	*500000*	*524850*	*105*
Manganese	*500*	*493*	*99*
Molybdenum	*1000*	*954*	*95*
Nickel	*1000*	*991*	*99*
Potassium	*10000*	*10518*	*105*
Silicon	*10000*	*10067*	*101*
Sodium	*10000*	*10629*	*106*
Strontium	*1500*	*1454*	*97*
Thallium	*1000*	*987*	*99*
Tin	*500*	*504*	*101*
Titanium	*500*	*506*	*101*
Vanadium	*500*	*495*	*99*
Zinc	*1000*	*992*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: WC-MRC-F-071317 MS
Lab ID: 240-82392-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-82392-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.00508		0.00013	U	0.00500	102	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-82435-A-1-C MS ^10

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	5.42		0.033	U	5.00	108	75-125		6010B
Barium	50.9		0.11	J	50.0	102	75-125		6010B
Cadmium	1.07		0.0029	U	1.00	107	75-125		6010B
Chromium	5.06		0.012	J	5.00	101	75-125		6010B
Lead	5.29		0.019	U	5.00	106	75-125		6010B
Selenium	1.09		0.051	U	1.00	109	75-125		6010B
Silver	1.05		0.0092	U	1.00	105	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: WC-MRC-F-071317 MSD
Lab ID: 240-82392-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-82392-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.00502		0.00500	100	80-120	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-82435-A-1-D MSD ^10

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	5.47		5.00	109	75-125	1	20		6010B
Barium	52.5		50.0	105	75-125	3	20		6010B
Cadmium	1.08		1.00	108	75-125	1	20		6010B
Chromium	5.08		5.00	101	75-125	0	20		6010B
Lead	5.29		5.00	106	75-125	0	20		6010B
Selenium	1.08		1.00	108	75-125	1	20		6010B
Silver	1.05		1.00	105	75-125	0	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-287840/3-A

Lab Name: TestAmerica Canton Job No.: 240-82392-1

Sample Matrix: Water LCS Source: MTICP1_00065

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	2.28		114	50	150		6010B
Barium	2.00	2.09		104	50	150		6010B
Cadmium	0.0500	0.0548		110	50	150		6010B
Chromium	0.200	0.200		100	50	150		6010B
Lead	0.500	0.490		98	50	150		6010B
Selenium	2.00	2.32		116	50	150		6010B
Silver	0.0500	0.0561		112	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-287845/3-A

Lab Name: TestAmerica Canton Job No.: 240-82392-1

Sample Matrix: Water LCS Source: MTHGCALW_01558

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00519		104	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 240-82435-A-1-B SD ^50

SDG No:

Lab Name: TestAmerica Canton Job No: 240-82392-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	0.033	U	0.17	U	NC		6010B
Barium	0.11	J	0.12	U	NC		6010B
Cadmium	0.0029	U	0.015	U	NC		6010B
Chromium	0.012	J	0.028	U	NC		6010B
Lead	0.019	U	0.095	U	NC		6010B
Selenium	0.051	U	0.26	U	NC		6010B
Silver	0.0092	U	0.046	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B MDL Date: 05/09/2016 09:01

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.05	0.0033
Barium	493.409	0.5	0.0024
Cadmium	226.502	0.05	0.00029
Chromium	267.716	0.05	0.00055
Lead	220.353	0.05	0.0019
Selenium	196.026	0.05	0.0051
Silver	328.068	0.05	0.00092

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B XMDL Date: 05/09/2016 09:02

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Arsenic	189.042	10	0.0033
Barium	493.409	200	0.0024
Cadmium	226.502	2	0.00029
Chromium	267.716	5	0.00055
Lead	220.353	5	0.0019
Selenium	196.026	15	0.0051
Silver	328.068	5	0.00092

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:32

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00013

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00013

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/20/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.030656				0.066045	
Antimony		-0.000064			-0.000244			-0.000054						0.002941	
Arsenic		0.000016			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000282	
Cadmium			0.01262					0.000002							
Chromium									0.000453						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000017					-0.003237		
Lead		-0.000086					0.000101	0.000044			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.00002							0.000338						
Thallium		0.000022			0.002708			-0.000025	0.000571					0.001707	
Vanadium								0.000067							
Zinc						-0.001092									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 07/10/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.043461331				0.024533	
Antimony		-0.000068			-0.000244			-0.000050						0.002100	
Arsenic		0.000024			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000097	
Cadmium			0.012425					0.000002							
Chromium									0.000062						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000039					-0.003104		
Lead		-0.000097					0.000101	0.000043			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.000001							0.000338						
Thallium		0.000022			0.003453			-0.000025	0.000571					0.001707	
Vanadium								0.000065							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-82392-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010B
Barium		25000	6010B
Cadmium		2000	6010B
Chromium		20000	6010B
Lead		15000	6010B
Selenium		10000	6010B
Silver		2000	6010B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-287720/1-B	07/19/2017 14:00	287840		50	50
MB 240-287840/2-A	07/19/2017 14:00	287840		50	50
LCS 240-287840/3-A	07/19/2017 14:00	287840		50	50
240-82435-A-1-C MS ^10	07/19/2017 14:00	287840		50	50
240-82435-A-1-D MSD ^10	07/19/2017 14:00	287840		50	50
240-82392-2	07/19/2017 14:00	287840		50	50

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-287720/1-C	07/19/2017 14:00	287845		50	50
MB 240-287845/2-A	07/19/2017 14:00	287845		50	50
LCS 240-287845/3-A	07/19/2017 14:00	287845		50	50
240-82392-2	07/19/2017 14:00	287845		50	50
240-82392-2 MS	07/19/2017 14:00	287845		50	50
240-82392-2 MSD	07/19/2017 14:00	287845		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Cr	Pb	Se																				
ICIS 240-288058/1	1		10:14	X	X	X	X	X	X	X																				
CALSTD 240-288058/2 IC			10:19	X	X	X	X	X	X	X																				
CALSTD 240-288058/3 IC			10:23	X	X	X	X	X	X	X																				
ICV 240-288058/4	1		10:28	X	X	X	X	X	X	X																				
ICB 240-288058/5	1		10:33	X	X	X	X	X	X	X																				
ICVL 240-288058/6	1		10:37	X	X	X	X	X	X	X																				
ZZZZZZ			10:42																											
ICSA 240-288058/8	1		10:47	X	X	X	X	X	X	X																				
ICSAB 240-288058/9	1		10:51	X	X	X	X	X	X	X																				
CCV 240-288058/10			10:56																											
CCB 240-288058/11			11:00																											
ZZZZZZ			11:05																											
ZZZZZZ			11:09																											
ZZZZZZ			11:14																											
ZZZZZZ			11:19																											
ZZZZZZ			11:24																											
ZZZZZZ			11:28																											
CCV 240-288058/18	1		11:33	X	X	X	X	X	X	X																				
CCB 240-288058/19	1		11:37	X	X	X	X	X	X	X																				
ZZZZZZ			11:50																											
ZZZZZZ			11:55																											
LB 240-287720/1-B	1	P	12:00	X	X	X	X	X	X	X																				
MB 240-287840/2-A	1	T	12:05	X	X	X	X	X	X	X																				
LCS 240-287840/3-A	1	T	12:09	X	X	X	X	X	X	X																				
ZZZZZZ			12:14																											
240-82435-A-1-B SD ^50	50	P	12:18	X	X	X	X	X	X	X																				
240-82435-A-1-C MS ^10	10	P	12:23	X	X	X	X	X	X	X																				
240-82435-A-1-D MSD ^10	10	P	12:27	X	X	X	X	X	X	X																				
ZZZZZZ			12:32																											
CCV 240-288058/30	1		12:36	X	X	X	X	X	X	X																				
CCB 240-288058/31	1		12:41	X	X	X	X	X	X	X																				
ZZZZZZ			12:45																											
ZZZZZZ			12:50																											
ZZZZZZ			12:55																											
CCV 240-288058/35	1		12:59	X	X	X	X	X	X	X																				
CCB 240-288058/36	1		13:04	X	X	X	X	X	X	X																				
CCVL 240-288058/37			13:08																											
ZZZZZZ			13:13																											
ZZZZZZ			13:18																											
ZZZZZZ			13:22																											
ZZZZZZ			13:27																											
CCV 240-288058/42			13:31																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
CCB 240-288058/43			13:37																									
ZZZZZZ			13:42																									
ZZZZZZ			13:47																									
ZZZZZZ			13:51																									
ZZZZZZ			13:59																									
ZZZZZZ			14:05																									
CCV 240-288058/49			14:10																									
CCB 240-288058/50			14:14																									
ZZZZZZ			15:01																									
ZZZZZZ			15:06																									
ZZZZZZ			15:10																									
ZZZZZZ			15:15																									
ZZZZZZ			15:20																									
ZZZZZZ			15:24																									
ZZZZZZ			15:28																									
ZZZZZZ			15:32																									
ZZZZZZ			15:37																									
ZZZZZZ			15:42																									
CCV 240-288058/61			15:47																									
CCB 240-288058/62			15:51																									
ZZZZZZ			15:56																									
ZZZZZZ			16:00																									
ZZZZZZ			16:05																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									
ZZZZZZ			16:19																									
ZZZZZZ			16:24																									
ZZZZZZ			16:28																									
ZZZZZZ			16:33																									
ZZZZZZ			16:38																									
CCV 240-288058/73			16:42																									
CCB 240-288058/74			16:47																									
ZZZZZZ			16:51																									
CCVL 240-288058/76			16:56																									
ZZZZZZ			17:01																									
ZZZZZZ			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:24																									
ZZZZZZ			17:28																									
ZZZZZZ			17:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
CCV 240-288058/85			17:38																									
CCB 240-288058/86			17:42																									
ZZZZZZ			17:47																									
ZZZZZZ			17:52																									
ZZZZZZ			17:56																									
ZZZZZZ			18:01																									
ZZZZZZ			18:06																									
ZZZZZZ			18:10																									
ZZZZZZ			18:15																									
ZZZZZZ			18:19																									
ZZZZZZ			18:24																									
ZZZZZZ			18:29																									
CCV 240-288058/97	1		18:33	X	X	X	X	X	X	X																		
CCB 240-288058/98	1		18:38	X	X	X	X	X	X	X																		
ZZZZZZ			18:43																									
ZZZZZZ			18:47																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:06																									
240-82392-2	1	P	19:11	X	X	X	X	X	X	X																		
ZZZZZZ			19:15																									
ZZZZZZ			19:20																									
ZZZZZZ			19:25																									
CCV 240-288058/109	1		19:29	X	X	X	X	X	X	X																		
CCB 240-288058/110	1		19:33	X	X	X	X	X	X	X																		
ZZZZZZ			19:38																									
ZZZZZZ			19:43																									
ZZZZZZ			19:47																									
ZZZZZZ			19:52																									
ZZZZZZ			19:56																									
ZZZZZZ			20:01																									
ZZZZZZ			20:05																									
ZZZZZZ			20:10																									
ZZZZZZ			20:15																									
ZZZZZZ			20:19																									
CCV 240-288058/121			20:24																									
CCB 240-288058/122			20:28																									
ZZZZZZ			20:33																									
ZZZZZZ			20:38																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			20:52																									
ZZZZZZ			20:57																									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:11																									
ZZZZZZ			21:15																									
CCV 240-288058/133			21:20																									
CCB 240-288058/134			21:24																									
ZZZZZZ			21:29																									
ZZZZZZ			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									
ZZZZZZ			21:52																									
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:06																									
ZZZZZZ			22:10																									
CCV 240-288058/145			22:15																									
CCB 240-288058/146			22:19																									
ZZZZZZ			22:24																									
ZZZZZZ			22:28																									
ZZZZZZ			22:33																									
ZZZZZZ			22:38																									
ZZZZZZ			22:42																									
ZZZZZZ			22:47																									
ZZZZZZ			22:51																									
ZZZZZZ			22:56																									
ZZZZZZ			23:01																									
ZZZZZZ			23:05																									
CCV 240-288058/157			23:10																									
CCB 240-288058/158			23:14																									
ZZZZZZ			23:19																									
ZZZZZZ			23:24																									
ZZZZZZ			23:28																									
ZZZZZZ			23:33																									
ZZZZZZ			23:38																									
ZZZZZZ			23:42																									
ZZZZZZ			23:47																									
ZZZZZZ			23:51																									
ZZZZZZ			23:56																									
ZZZZZZ			00:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
CCV 240-288058/169			00:05																									
CCB 240-288058/170			00:10																									
ZZZZZZ			00:14																									
ZZZZZZ			00:19																									
ZZZZZZ			00:23																									
ZZZZZZ			00:28																									
ZZZZZZ			00:32																									
ZZZZZZ			00:37																									
ZZZZZZ			00:41																									
ZZZZZZ			00:46																									
ZZZZZZ			00:50																									
ZZZZZZ			00:54																									
CCV 240-288058/181			00:59																									
CCB 240-288058/182			01:03																									
ZZZZZZ			01:08																									
ZZZZZZ			01:13																									
ZZZZZZ			01:17																									
ZZZZZZ			01:22																									
ZZZZZZ			01:27																									
ZZZZZZ			01:31																									
ZZZZZZ			01:36																									
ZZZZZZ			01:41																									
ZZZZZZ			01:45																									
ZZZZZZ			01:50																									
CCV 240-288058/193			01:54																									
CCB 240-288058/194			01:59																									
ZZZZZZ			02:03																									
ZZZZZZ			02:08																									
ZZZZZZ			02:13																									
ZZZZZZ			02:17																									
ZZZZZZ			02:22																									
ZZZZZZ			02:27																									
ZZZZZZ			02:33																									
ZZZZZZ			02:37																									
ZZZZZZ			02:42																									
ZZZZZZ			02:47																									
CCV 240-288058/205			02:53																									
CCB 240-288058/206			02:57																									
ZZZZZZ			03:02																									
ZZZZZZ			03:07																									
ZZZZZZ			03:11																									
ZZZZZZ			03:16																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010B

Start Date: 07/20/2017 10:14 End Date: 07/21/2017 03:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Cd	Cr	Pb	Se																			
ZZZZZZ			03:20																										
ZZZZZZ			03:25																										
ZZZZZZ			03:29																										
CCV 240-288058/214			03:34																										
CCB 240-288058/215			03:38																										

Prep Types:
P = TCLP
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/20/2017 08:34 End Date: 07/20/2017 16:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-287789/1-A			08:34	X
IC 240-287789/2-A			08:36	X
IC 240-287789/3-A			08:38	X
IC 240-287789/4-A			08:40	X
IC 240-287789/5-A			08:42	X
IC 240-287789/6-A			08:44	X
ICV 240-287789/7-A	1		08:52	X
ICB 240-287789/8-A	1		08:54	X
CRA 240-287789/9-A	1		08:56	X
CCV 240-287789/10-A			08:58	
CCB 240-287789/11-A			09:00	
CCV 240-287789/10-A			09:02	
CCB 240-287789/11-A			09:04	
CCV 240-287789/10-A			09:33	
CCB 240-287789/11-A			09:34	
ZZZZZZ			09:37	
ZZZZZZ			09:39	
ZZZZZZ			09:41	
ZZZZZZ			09:43	
ZZZZZZ			09:45	
ZZZZZZ			09:47	
ZZZZZZ			09:50	
ZZZZZZ			09:51	
ZZZZZZ			09:53	
ZZZZZZ			09:55	
CCV 240-287789/10-A			09:57	
CCB 240-287789/11-A			09:59	
ZZZZZZ			10:02	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:08	
ZZZZZZ			10:10	
ZZZZZZ			10:12	
ZZZZZZ			10:14	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:20	
CCV 240-287789/10-A	1		10:22	X
CCB 240-287789/11-A	1		10:24	X
LB 240-287720/1-C	1	P	10:26	X
MB 240-287845/2-A	1	T	10:28	X
LCS 240-287845/3-A	1	T	10:30	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/20/2017 08:34 End Date: 07/20/2017 16:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-82392-2	1	P	10:32	X																								
240-82392-2 MS	1	P	10:34	X																								
240-82392-2 MSD	1	P	10:36	X																								
ZZZZZZ			10:39																									
ZZZZZZ			10:41																									
CCV 240-287789/10-A	1		10:43	X																								
CCB 240-287789/11-A	1		10:45	X																								
CCV 240-287789/10-A			16:20																									
CCB 240-287789/11-A			16:22																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
CCV 240-287789/10-A			16:30																									
CCB 240-287789/11-A			16:32																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:39																									
ZZZZZZ			16:41																									
ZZZZZZ			16:43																									
ZZZZZZ			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:50																									
CCV 240-287789/10-A			16:52																									
CCB 240-287789/11-A			16:53																									

Prep Types:
P = TCLP
T = Total/NA

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287720 Batch Start Date: 07/18/17 14:45 Batch Analyst: Henry, Meagan

Batch Method: 1311 Batch End Date: 07/19/17 07:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00019	EXTCLPBUFF1 01209	EXTCLPFILTERS 00032	EXTCLPHCLW 00056	AnalysisComment	
LB 240-287720/1		1311, 3010A, 6010B		1 No Unit	1 mL	1	1 mL	Buffer 1	
240-82392-F-2	WC-MRC-F-071317	1311, 3010A, 6010B	P	1 No Unit	1 mL	1	1 mL	Filter only H2O	

Batch Notes	
Tumbler Rotations per Minute	A, C, J = 31 rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287840 Batch Start Date: 07/19/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3010A Batch End Date: 07/19/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MT1to1HCL 00070	MTAGSPIKEW 00075	MTICP1 00065	MTICP2A 00073
LB 240-287720/1-A		3010A, 6010B		50 mL	50 mL	5 mL			
MB 240-287840/2		3010A, 6010B		50 mL	50 mL	5 mL			
LCS 240-287840/3		3010A, 6010B		50 mL	50 mL	5 mL	1 mL	1 mL	1 mL
240-82435-A-1-A MS		3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL
240-82435-A-1-A MSD		3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL
240-82392-F-2-A	WC-MRC-F-071317	3010A, 6010B	P	50 mL	50 mL	5 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTNONRCRA+ODD 00008	MTRCRA 00012	MTTMHNO3 00124			
LB 240-287720/1-A		3010A, 6010B				3 mL			
MB 240-287840/2		3010A, 6010B				3 mL			
LCS 240-287840/3		3010A, 6010B				3 mL			
240-82435-A-1-A MS		3010A, 6010B	P	1 mL	0.5 mL	3 mL			
240-82435-A-1-A MSD		3010A, 6010B	P	1 mL	0.5 mL	3 mL			
240-82392-F-2-A	WC-MRC-F-071317	3010A, 6010B	P			3 mL			

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB0
Pipette ID	mp1-mp3-mp5
Digestion Tube/Cup ID	1703076

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287720 Batch Start Date: 07/18/17 14:45 Batch Analyst: Henry, Meagan

Batch Method: 1311 Batch End Date: 07/19/17 07:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00019	EXTCLPBUFF1 01209	EXTCLPFILTERS 00032	EXTCLPHCLW 00056	AnalysisComment	
LB 240-287720/1		1311, 7470A, 7470A		1 No Unit	1 mL	1	1 mL	Buffer 1	
240-82392-F-2	WC-MRC-F-071317	1311, 7470A, 7470A	P	1 No Unit	1 mL	1	1 mL	Filter only H2O	

Batch Notes	
Tumbler Rotations per Minute	A, C, J = 31 rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287789 Batch Start Date: 07/19/17 09:05 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 07/19/17 11:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00067	MTH2S04 00046	MTHGCALW 01558	MTHgICV_00001 00202
ICV 240-287789/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-287789/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-287789/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-287789/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-287789/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00138	MTTMHNO3 00124				
ICV 240-287789/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-287789/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-287789/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-287789/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-287789/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	C1
Pipette ID	MP1, A1, A7, MP2, MP5
Digestion Tube/Cup ID	1703076

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 287845 Batch Start Date: 07/19/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 07/19/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00067	MTH2S04 00046	MTHGCALW 01558	MTKMN04W 00138
LB 240-287720/1-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
MB 240-287845/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-287845/3		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-82392-F-2-A	WC-MRC-F-071317	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-82392-F-2-A MS	WC-MRC-F-071317	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-82392-F-2-A MSD	WC-MRC-F-071317	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00124					
LB 240-287720/1-A		7470A, 7470A		1.25 mL					
MB 240-287845/2		7470A, 7470A		1.25 mL					
LCS 240-287845/3		7470A, 7470A		1.25 mL					
240-82392-F-2-A	WC-MRC-F-071317	7470A, 7470A	P	1.25 mL					
240-82392-F-2-A MS	WC-MRC-F-071317	7470A, 7470A	P	1.25 mL					
240-82392-F-2-A MSD	WC-MRC-F-071317	7470A, 7470A	P	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C1
Pipette ID	mp2
Digestion Tube/Cup ID	1703076

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG No.:

Project: MRC Block E Downgradient

Client Sample ID	Lab Sample ID
WC-MRC-F-071317	240-82392-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-MRC-F-071317 Lab Sample ID: 240-82392-2

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG ID.:

Matrix: Water Date Sampled: 07/13/2017 14:00

Reporting Basis: WET Date Received: 07/15/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	1.00	1.00	Degrees F			1	1010A

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 288046 Date: 07/20/2017 12:08								
1010A		240-82550-I-3	Flashpoint	>200	Degrees F			
1010A		240-82550-I-3 DU	Flashpoint	>200	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 288046 Date: 07/20/2017 11:00											
						LCS Source: WCP-XYLENE_00020					
1010A	LCS 240-288046/1	Flashpoint	83.00		Degrees F	81.0	102	97-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A RL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-82392-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A XRL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Instrument ID: WHITEY Analysis Method: 1010A

Start Date: 07/20/2017 11:00 End Date: 07/20/2017 18:27

Lab Sample Id	D/F	Type	Time	Analytes
				FP
LCS 240-288046/1	1	T	11:00	X
ZZZZZZ			11:34	
240-82550-I-3 DU	1	T	12:08	X
240-82392-2	1	T	12:43	X
ZZZZZZ			13:17	
ZZZZZZ			13:52	
ZZZZZZ			14:26	
ZZZZZZ			15:00	
ZZZZZZ			15:35	
ZZZZZZ			16:09	
ZZZZZZ			16:44	
ZZZZZZ			17:18	
ZZZZZZ			17:53	
ZZZZZZ			18:27	

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-82392-1

SDG No.:

Batch Number: 288046 Batch Start Date: 07/20/17 11:00 Batch Analyst: Weimer, Joshua W

Batch Method: 1010A Batch End Date: 07/20/17 19:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialTemp	WCP-XYLENE 00020		
LCS 240-288046/1		1010A		70 mL	70 mL	72.0 Degrees F	70 mL		
240-82550-I-3 DU		1010A	T	70 mL	70 mL	54.0 Degrees F			
240-82392-D-2	WC-MRC-F-071317	1010A	T	70 mL	70 mL	54.0 Degrees F			

Batch Notes	
Equipment ID	Whitey

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

180325 3.9/C3.9

BALTIMORE

Chain of Custody Record

North Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Chris Pike	Site Contact: Stuart Cameron	Date: 7/14/2017	COC No:
Tera Tech	Tel/Fax: (412)921-8861 (Office)	Lab Contact: John McFadden	Carrier: Test America Courier	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC07896 - LI 19
Germantown, MD 20874	Calendar (C) or Work Days (W) W			
(412) 921-8861 Phone	TAT if different from Below 5 Days			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC, Block E Downgradient Investigation	☐ 1 week			
Site: Middle River Complex	☐ 2 days			Sampler: S. Cameron
P O # 112IC07896 - LI 19	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	PCBs	TCLP Metals	Ignitability	Sample Specific Notes:
TB-071417	--	--	--	AQ	2		X				
WC-MRC-F-071317	7/13/2017	14:00	G	AQ	8		X	X	X	X	

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 81372
Canton Facility

Client Tetra Tech Site Name Block E Cooler unpacked by: [signature]
Cooler Received on 7/15/17 Opened on 7/15/17
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.4** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0**°C) Observed Cooler Temp. 3.9 °C Corrected Cooler Temp. 3.9 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 56134 Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

Rec'd 2x40mL TB listed on 2 COC's will log 1x40mL for each ~~00~~ COC

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
\\tacorp\corp\QA\QA_Facilities\Canton-QA\Document-Management\Work-Instruction\Word Version Work Instructions\WI-NC-099-052317 Cooler Receipt Form.doc djl

Page 270 of 270