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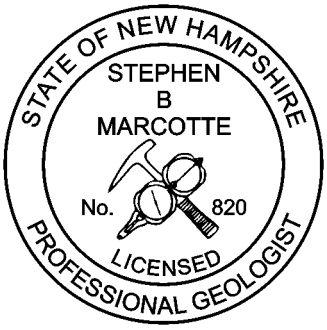
2013 ANNUAL SUMMARY REPORT
Coakley Landfill
Breakfast Hill Road
North Hampton, NH

NHDES Site #: 198712001
Project Type: CERCLA
Project Number: 431
EPA ID# NHD064424153

Stephen Marcotte

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Date of Report: January 17, 2014

Groundwater Monitoring Report Cover Sheet

Site Name: Coakley Landfill

Town: North Hampton

Permit #: GWP-198712001-N-001

Type of Submittal (*Check all that apply*)

☒ **Periodic Summary Report (*year*): 2013 Annual Report**

☐ **Data Submittal (*month and year per Condition #7 of Permit*):**

Check each box where the answer to any of the following questions is "YES"

Sampling Results

☐ **During the most recent monitoring event, were any new compounds detected at any sampling point?**
Well/Compound:

☒ **Are there any detections of contamination in drinking water that is untreated prior to use?**
Well/Compound: R-3/339BHR (1,4-dioxane) – concentrations do not exceed AGQS.
☐ **Do compounds detected exceed AGQS?**

☐ **Was free product detected for the first time in any monitoring point?**
☐ **Surface Water (*visible sheen*)**
☐ **Groundwater (*1/8" or greater thickness*)**
Location/Thickness:

Contaminant Trends

☒ **Do sampling results show an increasing concentration trend in any source area monitoring well?**
Well/Compound: FPC-6A (manganese, arsenic)

☒ **Do sampling results indicate an AGQS violation in any of the GMZ boundary wells?**
Well/Compound: FPC-5/6 (1,4 dioxane), GMZ expansion established Jan 7, 2014.

Recommendations

☐ **Does the report include any recommendations requiring DES action? (*Do not check this box if the only recommendation is to continue with existing permit conditions.*)**

This form is to be completed for groundwater monitoring data submittals and periodic summary reports submitted to the New Hampshire Department of Environmental Services Waste Management Division.

2013 ANNUAL SUMMARY REPORT
GROUNDWATER MANAGEMENT PERMIT

Coakley Landfill
North Hampton, New Hampshire
NHDES Site #198712001

Prepared for:

Coakley Landfill Group
1 Junkins Avenue
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Prepared by:

SUMMIT ENVIRONMENTAL CONSULTANTS
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January 17, 2014
Project 12-3173-01

January 17, 2014

Groundwater Management Permits Coordinator
New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, NH 03302-0095

Re: **2013 ANNUAL SUMMARY REPORT**
Coakley Landfill – Breakfast Hill Road, North Hampton, New Hampshire

On behalf of the Coakley Landfill Group (CLG), Summit Environmental Consultants (Summit) is hereby submitting the 2013 Annual Summary Report describing long-term environmental monitoring activities completed at the closed Coakley Landfill (the Site) in August 2013. This report has been prepared to meet the requirements of the Site's Project Operations Plan (POP) and Environmental Monitoring Plan (EMP) Revision 1.0, dated April 2010 prepared by Golder Associates, Inc., the Addendum to the EMP (July 2013 Revision 2.0) prepared by Summit, dated September 17, 2013, and the New Hampshire Department of Environmental Services (NHDES) Groundwater Management Permit (GMP, GWP-198712001-N-001).

Environmental monitoring results for the August 2013 long-term monitoring event and trends in groundwater quality parameters are consistent with the conceptual site model, overall trends in groundwater quality, and overall findings discussed in Summit's Groundwater Management Zone Evaluation report, dated April 2013. In general, the compounds and locations that exceeded the regulatory thresholds during the August 2013 long-term monitoring event are similar to historical monitoring events, and no new parameter detections at monitoring points occurred. Compounds reported at concentrations exceeding regulatory thresholds were limited to arsenic, manganese and 1,4-dioxane.

Groundwater quality is stable or improving at most locations, and 1,4-dioxane concentrations reported in off-site water supply wells R-3 and 339BHR continue to be stable and below regulatory thresholds. An increasing concentration trend for several parameters is present at well couplet FPC-6. The planned installation of additional monitoring wells, as discussed with the agencies, will allow further evaluation of the water quality changes observed in the vicinity of FPC-6.

Please contact either of the undersigned with any questions or comments regarding this report.

Sincerely,
SUMMIT ENVIRONMENTAL CONSULTANTS

Stephen B. Marcotte, P.G.
Project Manager

Michael A. Deyling, P.G.
Senior Project Geologist

Attachments

cc: The Coakley Landfill Group
Gerardo Millan-Ramos, EPA

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2013 ANNUAL SUMMARY REPORT
GROUNDWATER MANAGEMENT PERMIT
COAKLEY LANDFILL – NORTH HAMPTON, NEW HAMPSHIRE
NHDES SITE #198712001

1.0 INTRODUCTION

On behalf of the Coakley Landfill Group (CLG), Summit Environmental Consultants (Summit) conducted the 2013 Annual Environmental Monitoring Plan sampling event at the closed Coakley Landfill located in North Hampton, New Hampshire. Summit conducted the monitoring event in accordance with the Project Operations Plan (POP) and Environmental Monitoring Plan (EMP) Revision 1.0, dated April 2010 and prepared by Golder Associates, Inc., and the Addendum to the EMP (July 2013 Revision 2.0) prepared by Summit, dated September 17, 2013.

Summit performed the field sampling work and reporting, and Eastern Analytical, Inc. (EAI) of Concord, New Hampshire performed the laboratory analyses. The monitoring program for the Site is currently managed by Summit.

The closed Coakley Landfill Site consists of approximately 107 acres of land located within the Towns of Greenland and North Hampton, New Hampshire. The actual landfill area is located in the southern portion of the Site and covers approximately 27 acres of land located in North Hampton, as shown on the Site Location Map (Figure 1) and Site Plan (Figure 2). The landfill area is located approximately 700 feet to the west of Lafayette Road (US Route 1), 2,500 feet to the south of Breakfast Hill Road, and 3,800 feet to the north of North Road. The Boston and Maine Railroad rail line is situated along the western boundary of the Site. The landfill borders farmland, undeveloped forests and wetlands to the north and west, and commercial and residential properties to the east and south.

Environmental monitoring at the Coakley Landfill is separated into two areas, or Operable Units. Operable Unit 1 (OU-1) includes the area in the immediate vicinity of the landfill where source control actions were completed to reduce impacts to surface water and groundwater quality and eliminate threats posed by direct contact with or ingestion of contaminated media at the Site. Operable Unit 2 (OU-2) includes the area beyond landfill where the objective is to monitor the natural attenuation of water quality impacts and minimize exposure to potential receptors caused by groundwater and surface water migrating away from the Site.

Long-term monitoring at the Coakley Landfill has been ongoing since the remedial actions were completed in Fall 1998. The long-term monitoring of groundwater, surface water and sediment quality following landfill capping and site closure was initially conducted in accordance with the 1999 Environmental Monitoring Plan (EMP). Over time, the scope of environmental monitoring activities has been modified, and sediment and water quality monitoring is currently performed in accordance with the April 2010 EMP (Golder, 2010) and revisions to the EMP contained in the July 2013 Addendum to the EMP (Summit, 2013).

The New Hampshire Department of Environmental Services (NHDES) issued a Groundwater Management Permit (GMP) GWP-198712001-N-001 for the Coakley Landfill site for a five-year term on June 19, 2008. The GMP includes a provision for the long-term monitoring of

groundwater and created a Groundwater Management Zone (GMZ) that restricts property owners from extracting groundwater for potable use. The NHDES GMP requires that the GMZ be monitored and results compared to NHDES Ambient Groundwater Quality Standards (AGQSs), some of which are slightly different than EPA's site-specific standards (Interim Cleanup Levels [ICLs] and Primary Drinking Water Standard Maximum Contaminant Levels [MCLs]). This report considers both EPA-established ICLs/MCLs and NHDES AGQSs.

As part of the GMP renewal application process, Summit prepared a technical report (Summit, 2013a) summarizing trends in groundwater quality, the progress of the selected site remedy of monitored natural attenuation, and the appropriateness of the GMZ. Summit concluded that long-term monitoring results for monitoring events prior to August 2013 indicate that stable water quality was present at the majority of groundwater monitoring points. However, 1,4-dioxane concentrations at the northwestern boundary of the GMZ exceed the AGQS and a GMZ expansion in this area was determined to be warranted. Following further discussions with EPA/NHDES and completion of collection of additional samples from nearby water supply wells, Summit submitted a GMP Renewal Application on October 4, 2013. NHDES issued a new GMP on January 7, 2014 which includes an expanded GMZ and requires the installation of two additional overburden/bedrock monitoring well couplets in the GMZ expansion area. Revisions to the EMP required by the new GMP for the Site will be completed following EPA/NHDES review of this report.

This report provides an overview of the sample collection and analyses conducted for the August 2013 monitoring event. The information presented in this report includes: sampling locations, sample collection protocols, quality assurance/quality control (QA/QC) procedures and results, summary of the analytical results, summary of ICL/AGQS exceedances, discussion of historical trends, and conclusions and recommendations.

2.0 SAMPLE COLLECTION

The Addendum to the EMP (July 2013 Revision 2.0) requires annual sampling and analysis in August of each calendar year at thirty-two groundwater monitoring wells, five off-site water supply wells, three surface water sampling locations and one leachate sampling location. In addition, depth to groundwater level measurements are required at five additional monitoring wells during the August sampling event.

The EMP requires sampling and analysis of sediment at two locations in August at five-year intervals. Sediment samples were not collected during the August 2013 sampling event. The next five-year sediment sampling event is scheduled for August 2014.

Tables summarizing the August 2013 sample collection locations, sampling methods and laboratory analyses are included in Appendix A (EMP Tables 2-1, 2-2, 2-3, 2-5 and A). Sampling locations are identified on Figure 2.

NHDES and EPA performed a Technical Systems Audit during equipment calibration and groundwater sampling activities on August 13, 2013. EPA/NHDES audit findings were presented in two separate August 2013 Technical Systems Audit reports dated September 19, 2013 (EPA, 2013b; NHDES, 2013). Summit provided detailed responses to QA/QC items noted by NHDES/EPA in a letter to NHDES and EPA dated November 14, 2013 (Summit, 2013c).

2.1 Groundwater Level Monitoring

Prior to the collection of groundwater samples, Summit measured depth to groundwater with an electronic water level meter capable of measuring in 0.01 foot increments. Depth to ground water measurements and corresponding water level elevation data for the monitoring event are presented in a summary table presented in Appendix B. Historical groundwater elevation measurements are summarized in Table 1.

2.2 Well Depth Monitoring

The Addendum to the EMP (July 2013 Revision 2.0) requires measurement of well depths during the sampling event prior to EPA 5-Year Reviews. Well depths were not required to be collected during the August 2013 sampling event.

The next round of well depth measurements is scheduled for August 2014.

2.3 Well Integrity Inspection

Summit completed a well integrity inspection during the August 2013 sampling event. The following corrective actions were identified.

- Replacement protective casing caps should be installed on 12 FPC-series wells including: FPC-2A, FPC-2B, FPC-5B, FPC-6A, FPC-6B, FPC-7A, FPC-7B, FPC-8A, FPC-8B, FPC-9A, FPC-9B and FPC-9C. FPC-series well casings are unique square casings within integral hinges that no longer close completely or are corroded. Custom built replacement protective casing caps are being prepared and will be installed when available, prior to the next sampling event.

- A long shank lock should be installed on monitoring well OP-5. A new lock was installed by Summit on January 10, 2014.

- A new surface seal should be installed at FPC-8B. A new concrete surface seal was installed by Summit on December 19, 2013.

- Field observations indicated that the top of casing (measuring point) elevation for FPC-6A listed in the EMP was incorrect. The elevation listed in the EMP was for the original FPC-6A well, which was later replaced. Summit surveyed the measuring point elevation point for FPC-6A on December 19, 2013, using the measuring point elevation for FPC-6B as a reference point and revised Table 1 Groundwater Elevation data accordingly. Refer to summary table in Appendix B for revised well construction and survey information. These revisions will also be made in the next revision of the EMP.

- During the sampling event, Summit noted that the depth of wells OP-2, MW-5S, MW-5D and MW-8 are slightly deeper than depths listed on boring logs. Following the sampling event, Summit verified that depths determined by the previous sampling contractor in August 2012 were correct. Summit's review of project documentation indicates that the risers for these wells were extended during landfill closure and boring logs for these wells were not updated at that time. Refer to summary table in Appendix B for revised

well construction and survey information. These revisions will also be made in the next revision of the EMP.

- During the sampling event, Summit noted that the depth of FPC-5A reported by the previous sampling contractor was not consistent with boring logs. Summit confirmed that FPC-5A is obstructed and that the depth of the tubing intake is above the screened interval. Consistent with previous sampling event, FPC-5A was sampled with a tubing intake above the obstruction.

- Protective road boxes for FPC-11A, FPC-11B and FPC-11C had failed seals which allowed surface water from adjacent grassy and paved areas to infiltrate into the well casings. EPA and NHDES representatives were notified of this in the field on August 13, 2013. In a letter from Summit to EPA and NHDES dated November 18, 2013, the agencies were notified of a schedule for well repair and Summit recommended that well sampling be deferred until the next annual sampling event (August 2014) so there is sufficient time for the wells to equilibrate. The road boxes for FPC-11A, FPC-11B and FPC-11C (depth to water level only) were repaired and well FPC-11A and FPC-11B were redeveloped with a submersible pump on January 10, 2014. The top of the PVC casing for FPC-11C was modified during repair work and the measuring point elevation needs to be resurveyed.

2.4 Field Parameter Monitoring

Field parameter water quality meters were calibrated in accordance with SOP #2 Calibration of YSI and Hach Field Instruments included in the Addendum to the EMP (July 2013 Revision 2.0). Summit measured field parameters including pH, Oxidation Reduction Potential (ORP), Temperature, Specific Conductance, and Dissolved Oxygen using a YSI-600XL water quality meter with a 250 milliliter closed flow-through cell and turbidity using a Hach 2100Q turbiditimeter. Meters were calibrated every day prior to sampling, and a post-sampling check was completed at the end of every sampling day.

Equipment calibration logs are included in Appendix B.

Field parameter measurements are presented in Table 2 (OU-1 Groundwater Monitoring Wells), Table 3 (OU-2 Groundwater Monitoring Wells), Table 5 (Water Supply Wells), and Table 6 (Leachate).

2.5 Groundwater Sample Collection

On August 12, 13, 14, 15, 16 and 19, 2013, Summit collected groundwater samples from eleven monitoring wells located in OU-1, nineteen monitoring wells in OU-2 and four off-site water supply wells located in the Town of Greenland, New Hampshire. The following deviations from the Addendum to the EMP (July 2013 Revision 2.0) groundwater sampling plan occurred during the August 2013 sampling event:

- Groundwater samples were not collected from two monitoring wells (FPC-11A & FPC-11B) because field observations indicated that failed seals on the protective road boxes had allowed surface water from adjacent grassy and paved areas to infiltrate into the

well casings. Refer to Section 2.3 for additional information regarding well cluster FPC-11.

- Consistent with previous monitoring events, off-site water supply well R-5 was not sampled because the home is not occupied and the water system is out of service.

Groundwater samples were collected in accordance with the site-specific Standard Operating Procedures (SOPs) listed in the Addendum to the EMP (July 2013 Revision 2.0). The sampling methodology used at each sampling location is listed in Appendix A (EMP, Tables 2-2 and 2-3). Methodologies used for collection of groundwater samples are summarized below:

- Sixteen monitoring wells were sampled with a peristaltic pump using a low-flow sampling methodology (SOP #3 Low-Flow Sampling with a Peristaltic Pump);
- Eleven monitoring wells were interval sampled with a peristaltic pump (SOP #4 Peristaltic Pump Interval Sampling) to determine whether contaminant stratification is present and to guide the depth of sampling for future monitoring events;
- Three monitoring wells were sampled with a bailer (SOP #5 Sampling with a Bailer). *Note that the depth to water level at these wells exceeds the suction lift limit of a peristaltic pump*; and
- Four off-site water supply wells were sampled in accordance with SOP #6 Sampling Water Supply Wells.

In accordance with new SOPs contained in the Addendum to the EMP (July 2013 Revision 2.0), existing sampling tubing in OU-1 and OU-2 monitoring wells was removed and new 1/4-inch inner diameter 3/8-inch outer diameter low density polyethylene (LDPE) tubing was installed and fitted with Masterflex #15 & #16 silicon tubing at the surface. LDPE tubing was firmly attached to well risers with zip ties. New sampling tubing at wells sampled using SOP #3 (Low-Flow Sampling with a Peristaltic Pump) was installed at least 12 hours before sampling. New sampling tubing at wells sampled using SOP #4 (Peristaltic Pump Interval Sampling) was installed at least 72 hours prior to sampling, and tubing was removed immediately after sample collection was completed. New sampling tubing will be installed at FPC-11A or FPC-11B following well repairs (see above).

Groundwater samples were collected in accordance with site-specific SOPs, placed into laboratory-supplied sampling containers in the order specified in the SOPs, and packed on loose ice for transport under chain-of-custody protocol to EAI. EAI analyzed the samples for the list of parameter identified in Appendix A (EMP, Tables 2-2, 2-3 and A).

Copies of groundwater sample collection logs are included in Appendix B.

Analytical laboratory results are presented in Table 2 (OU-1 Groundwater Monitoring Wells), Table 3 (OU-2 Groundwater Monitoring Wells), Table 4 (Interval Sampled Wells), and Table 5 (Off-site Water Supply Wells).

2.6 Surface Water Sample Collection

Similar to previous August monitoring events, samples at surface water sampling locations SW-4, SW-5 and SW-103 were not collected due to insufficient water. A Surface Water Sampling Worksheet summarizing weather conditions along with photographic documentation of the conditions at each sampling location on August 14, 2013 is provided in Appendix B.

2.7 Leachate Sample Collection

On August 14, 2013, Summit collected a sample at leachate sampling point L-1. A Surface Water Sampling Worksheet summarizing weather conditions, photographic documentation and field parameters is provided in Appendix B.

Leachate sample L-1 was collected in accordance with site-specific SOPs, placed into laboratory-supplied sampling containers in the order specified in the SOPs, and packed on loose ice for transport under chain-of-custody protocol to EAI. EAI analyzed the sample for the list of parameters listed in the Appendix A (EMP, Tables 2-5).

Analytical laboratory results are presented in Table 6.

It is important to note that the landfill does not have a leachate collection system, and "leachate" samples collected at L-1 are more representative of shallow overburden groundwater discharging to an impounded wetland area on the northwestern margin of the landfill.

2.8 Quality Assurance / Quality Control (QA/QC) Samples

The Quality Assurance / Quality Control (QA/QC) sampling requirements are summarized in Appendix A (EMP, Tables 2-2, 2-3 and 2-5). QA/QC samples collected during the August 2013 sampling event are summarized below.

- Field Duplicate samples were collected at three monitoring wells (FPC-6A, MW-4 and MW-8), water supply well R-3, and leachate sampling location L-1.
- Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples were collected at two groundwater monitoring wells (FPC-6A and AE-3A) and at leachate sampling location L-1.
- Trip Blanks for volatile organic compounds (VOCs) and/or low-level 1,4-dioxane were included in each of the coolers submitted to EAI.
- Equipment Blank/Field Blank pairs were collected for the electronic water level meter and the brass water supply well sampling apparatus. The electronic water level meter Equipment/Field Blank pair was collected after well MW-8 was sampled and the water level meter was decontaminated. The brass water supply well sampling apparatus Equipment/Field Blank pair was collected prior to sampling of water supply wells.

Results of QA/QC samples are discussed in Section 3.1 of this report.

3.0 QUALITY ASSURANCE/QUALITY CONTROL RESULTS

A component of the EMP is the implementation of a QA/QC program, including both field and office elements. Field QA/QC activities were conducted to verify that sample collection, handling, and storage methods are adequate to ensure sample integrity. Office QA/QC activities focus on the data evaluation to assess whether the laboratory data are complete and representative of site conditions.

The data quality objectives and associated validation requirements are specified in the EMP and include:

- Identification of parameters present in associated blanks (i.e., trip blanks, method blanks, etc.);
- Evaluation of the data reproducibility by calculating the relative percent difference (RPD) for duplicate samples that meet specific criteria;
- Verification that the chain-of-custody for each sample is continuous and that the laboratory analyzed the samples for the specified parameters; and
- Completion of a US EPA Region I Tier 1 Data Validation to evaluate the laboratory reports for completeness, assess the results of Performance Evaluation samples analyzed with field samples, and confirm that all sample tests were performed within method holding times.

Results of the QA/QC activities are presented in Sections 3.1 and 3.2.

3.1 Field QA/QC Activities

3.1.1 Trip Blanks

Trip Blanks for volatile organic compounds (VOCs) and/or 1,4-dioxane were included in each of the coolers submitted to EAI containing samples for analysis of VOCs or 1,4-dioxane. A total of four Trip Blanks were analyzed for VOCs, including three using EPA Method 8260B and one using EPA Method 524. A total of eight Trip Blanks were analyzed for 1,4-dioxane. EAI did not detect concentrations of VOCs and/or 1,4-dioxane above the laboratory reporting limits in any Trip Blanks submitted during the August 2013 sampling event.

3.1.2 Equipment Blanks and Field Blanks

Summit collected Equipment/Field Blank pairs for the electronic water level meter and the brass water supply well sampling apparatus. The Equipment/Field Blank pair for the electronic water level meter was submitted for analysis of VOCs, 1,4-dioxane, total arsenic, and total manganese. The Equipment/Field Blank pair for the brass water supply well sampling apparatus was submitted for analysis of VOCs and 1,4-dioxane. EAI reported all parameters as Not Detected above laboratory detection limit.

3.1.3 Field Sampling Data Review

Field sampling sheets included in Appendix B were reviewed for completeness and adherence to sampling SOPs included in Addendum to the EMP (July 2013 Revision 2.0). Field sampling data show that objectives were met at sampling points, with the following exceptions:

- Drawdown during low-flow sampling at monitoring wells AE-2B and AE-4B exceeded the recommended drawdown of 0.3 feet. Water levels did not stabilize during purging at the lowest flow rates achievable at these wells. Drawdowns at the time of parameter stabilization ranged from 3.18 feet to 3.4 feet. Samples were collected following field parameter stabilization; however, drawdown and tubing volume calculations indicate very slow recharge at these wells. It is recommended that a no-purge, low-flow sampling method (SOP#7 – Grab Sampling with a Peristaltic Pump) be implemented at AE-2B and AE-4B.
- During the sampling event, Summit noted that the depth of FPC-5A reported by the previous sampling contractor was not consistent with boring logs. Summit confirmed that FPC-5A is obstructed and that the depth of the tubing intake is above the screened interval. Consistent with previous sampling event, FPC-5A was sampled with a tubing intake above the obstruction. Refer to the FPC-5A sampling log in Appendix B for a detailed description of the current conditions at this well.

3.1.4 Other Field QA/QC Issues

Other QA/QA issues were not identified during completion of the August 2013 sampling event.

3.2 Office QA/QC activities

Office QA/QC activities, as required by the EMP, include verification of chain-of-custody protocols and sample holding times, verification that all field and laboratory analyses were completed, and completion of a Tier I validation of the laboratory reports in accordance with the USEPA's Region I Data Validation Functional Guidelines (Revised December 1996).

3.2.1 Chain-of-Custody Forms

Summit reviewed the chain-of-custody forms for completeness and/or lapses in custody. Summit found the forms to be complete and did not identify any lapses in chain-of-custody protocol. EAI received each sample cooler within the temperature of +1.0ºC to +3.0ºC.

3.2.2 Omitted Field and Laboratory Analyses

Summit reviewed field sampling sheets and EAI laboratory reports and found that the required field parameters were collected and the required laboratory analyses for each of the samples collected were completed, with no exceptions.

3.2.3 Tier I Data Validation

Quality Assurance Associates, LLC (QAA) of College Station, Texas, performed a Tier I validation of the EAI laboratory reports under contract to Summit and in accordance with the USEPA's Region I Data Validation Functional Guidelines (Revised December 1996). QAA evaluated the laboratory reports for completeness, assessed the results of Performance Evaluation samples analyzed with field samples, and verified that all sample tests were performed within method holding times. The Tier I Data Validation summary reports are provided in Appendix D.

The Tier I Data Validation completed by QAA found that the laboratory reports were complete; however, the following minor exceptions were noted:

- Sample matrix was not identified by the sampler on every chain of custody; however, the laboratory logged in all samples correctly as aqueous.

- For the Trip Blanks, the sampler entered the date the Trip Blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared at the lab as the date sampled and logged in the blank using this date.
- Laboratory Control Standard (LCS) recoveries for antimony slightly exceeded laboratory limits for samples collected at MW-4, MW-6, MW-9, MW-10, OP-2, FPC-5A, FPC-6A, FPC-7A, AE-2A, AE-2B, AE-3A, AE-4A, AE-4B and L-1. At these sampling points, antimony was reported as Not Detected above detection limits. Therefore, this did not affect the sample results.

- Laboratory Control Standard (LCS) and/or Laboratory Control Standard Duplicate (LSCD) recoveries for vinyl acetate and 2,2-dichloropropane were lower than laboratory limits for samples collected at off-site water supply wells 339BHR, R-3, 346BHR and 415BHR. At these sampling points, vinyl acetate and 2,2-dichloropropane were reported as Not Detected above laboratory detection limits and these parameters have generally not been detected at the Site. Therefore, this did not appear to affect the sample results.

Results of the Tier I Data Validation indicate that the laboratory reports are complete and no analytical data qualifications are warranted.

3.2.4 Field Duplicates

An original and a duplicate sample were collected at monitoring wells MW-4, MW-8 and FPC-6A, off-site water supply well R-3, and leachate sampling location L-1 for QA/QC purposes. Table 7 presents the relative percent differences (RPDs) for parameter concentrations detected in the original and duplicate samples. RPDs were calculated only when both sample and duplicate values were greater than 5 times the practical quantitation limit (PQL) of the analyte.

Calculated RPDs were within 10% of the original sample results, with the following exceptions: At monitoring well MW-4, the RPDs for aluminum and nickel were 21% and 12%, respectively. At leachate sampling location L-1, the RPDs for chemical oxygen demand, barium and iron were 27%, 18% and 25%, respectively.

The consistency of parameter concentration values between original and duplicate samples for the majority of the parameters analyzed shows that laboratory procedures and analyses produced reproducible values.

3.2.5 Matrix Spike/Matrix Spike Duplicates

Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples were collected at groundwater monitoring wells FPC-6A and AE-3A, and at leachate sampling location L-1. MS/MSD results for monitoring well FPC-6A are included in EAI laboratory report 123704. MS/MSD results for monitoring well AE-3A and leachate sampling location L-1 are included in EAI laboratory report 123649.

MS/MSD results for groundwater and leachate samples met applicable QA/QC limits. Based on these results, analytical data were not significantly affected by matrix effects.

4.0 SUMMARY OF RESULTS

4.1 Groundwater Elevations

Groundwater potentiometric surface contour maps were developed for overburden groundwater (Figure 3) and bedrock groundwater (Figure 4) using data collected in August 2013. Consistent with data generated during previous monitoring events, the following observations can be made from the overburden and bedrock groundwater potentiometric surface maps:

- Bedrock and overburden groundwater elevations in proximity to the landfill area support predominantly westward flow away from the landfill area toward a prominent north-northeast/south-southwest trending valley where the Little River and Berry's Brook are located.

- Bedrock and overburden groundwater elevations in the north-northeast/south-southwest trending valley west of the Site support the presence of a flow divide, with the direction of groundwater flow changing to north-northeast and south-southwest, along the trends of Berry's Brook and Little River, respectively.

- Water level elevations in overburden wells MW-4 and OP-5 along the eastern boundary of the landfill indicate an east/west shallow overburden flow divide is likely present proximal to the eastern boundary of the landfill.

Upward and downward hydraulic gradients are present at many of the well couplets monitored at the Site. However, the likelihood that the gradients lead to a significant component of vertical flow within the hydrogeological units is dependent on the hydrogeological conditions present at each location. The following general statements are based on groundwater elevation measurements collected in August 2013:

- Vertical hydraulic gradients at couplets AE-1 and FPC-11 are negligible. Note that data from FPC-11 may be biased due to surface water infiltration; however, results from previous monitoring events are similar.

- Vertical hydraulic gradients at couplets GZ-123/125, AE-2, AE-3, FPC-5 and FPC-6 support a component of upward flow.

- Vertical hydraulic gradients at couplets MW-5, AE-4, FPC-2, FPC-7 and FPC-8 support a component of downward flow.

- Vertical hydraulic gradients at couplet FPC-9 support a component of downward flow from outwash overburden through the underlying marine unit, with no significant component of vertical flow between till and bedrock units.

4.2 Groundwater Analytical Results

Analytical results for the August 2013 sampling event and historical results dating back to August 2006 are provided in Table 2 (OU-1 Groundwater Monitoring Wells), Table 3 (OU-2 Groundwater Monitoring Wells), and Table 5 (Off-site Water Supply Wells).

Bedrock wells with screened intervals longer than 10 feet were interval sampled in August 2013 to determine whether contaminant stratification is present and to guide the depth of sampling for future events. Discrete interval sampling results are provided in Table 4 and the results are discussed in Section 5.2.

In general, parameter concentrations reported for samples collected during the August 2013 sampling event are similar to previous results, and no new parameter detections at monitoring points were reported. Refer to Section 5.3 for a discussion of groundwater regulatory threshold exceedances.

4.2 Surface Water Analytical Results

Surface water samples were not collected in August 2013 due to insufficient water.

4.3 Leachate Analytical Results

Analytical results for leachate sampling location L-1 are summarized in Table 6. Results are compared to NHDES Surface Water Standards of acute and chronic exposure scenarios. Results for samples collected in August 2013 indicate that concentrations of iron, selenium and ammonia at sampling point L-1 exceed the NHDES Surface Water Standards for a chronic exposure scenario.

Parameter concentrations reported for samples collected during the August 2013 sampling event are similar to previous results.

5.0 ANNUAL DATA SUMMARY AND DISCUSSION

The EMP requires water quality sampling data be evaluated to identify spatial and temporal trends and the status of remedial objectives. The following evaluations were completed to assess these objectives.

- Preparation of groundwater potentiometric surface contour maps for overburden and bedrock groundwater.
- Preparation of time series plots for constituents of concern at wells where concentrations are currently or have recently exceeded ICLs or AGQSs.
- Trend analysis for constituents of concern at wells where concentrations are currently or have recently exceeded ICLs or AGQSs.
- Preparation of figures showing the vertical and lateral distributions of constituents of concern present at the Site that exceed ICLs or AGQSs.
- Evaluation of interval sampling results for evidence of contaminant stratification and to establish the depth of tubing intake for future monitoring events.

5.1 Groundwater Potentiometric Surfaces

Overburden and bedrock groundwater flowing beyond the western margin of the landfill is affected by a flow divide located in a broad topographic saddle to the west of the landfill, which results in the bifurcation of groundwater flow into two distinct flow pathways along a prominent north-northeast/south-southwest trending valley. The north-northeastern flow pathway is situated within the watershed of Berry's Brook, which drains to the northeast across Breakfast Hill Road. The south-southwestern flow pathway is situated within the watershed of the Little River, which drains to the south-southwest across North Road.

In general, groundwater levels, flow direction, and hydraulic gradients measured in August 2013 are consistent with those measured in previous annual sampling events.

5.2 Interval Sampling Results

Discussions with NHDES and EPA prior to the August 2013 sampling event indicated that the preferred sampling methodology for wells with screened intervals longer than 10 feet is a low-flow/low-stress sampling methodology with a tubing intake location selected based upon results of interval sampling for constituents of concern. In August 2013, interval samples were collected at 11 bedrock monitoring wells and submitted for analysis of total arsenic, total manganese, and 1,4-dioxane (the three primary constituents of concern at the Site).

Table 4 presents interval sampling analytical results and proposed tubing intake locations chosen to coincide with the highest parameter concentrations. Conclusions drawn by Summit based on the interval sampling results include:

- No significant stratification is apparent at MW-11, FPC-4B, FPC-5B, FPC-6B and FPC-8B.
- Some stratification of varying degrees appears to may be present at MW-5D, MW-5S, MW-8, AE-3B, FPC-7B and GZ-105.

- Parameter concentrations at 8 of the 11 wells interval sampled were comparable to previous results for the well reported in the last 5 years, including at MW-5D, MW-5S, MW-8, AE-3B, MW-11, FPC-4B, FPC-6B and FPC-8B.
- At FPC-5B, interval sample manganese and arsenic concentrations were similar to results from the last 5 years; however, 1,4-dioxane was reported at concentrations ranging from 62 to 67 ug/L, or approximately 20% higher than the value reported in August 2012 (53 ug/L).
- At FPC-7B, interval sample manganese and arsenic concentrations were higher than what is typically reported, but similar to an isolated peak in concentrations reported in August 2008. Summit attributes the relatively high arsenic and manganese concentrations reported in interval samples at FPC-7B to be representative of natural variation of groundwater quality at this location.
- At GZ-105, interval sample results for manganese, arsenic and 1,4-dioxane concentrations were significantly lower than results from the last 5 years. Results may indicate an improvement in groundwater quality.

Future sampling of the monitoring wells listed in Table 4 should be conducted with a tubing intake at the location identified in Table 4.

5.3 Groundwater Regulatory Threshold Exceedances

5.3.1 Monitoring Wells

Analytical results from overburden and bedrock monitoring wells (total of 30 monitoring wells) were tabulated and compared to EPA-established Interim Cleanup Levels (ICLs) and NHDES-established Ambient Groundwater Quality Standards (AGQSs). ICL and AGQS exceedances reported in groundwater samples collected during the August 2013 sampling event are similar to previous results. Parameters reported at concentrations exceeding ICLs or AGGSs are summarized below.

Total Arsenic

A total of thirty (30) groundwater samples were submitted for analysis of total arsenic. The ICL and AGQS for arsenic is 10 micrograms per liter (ug/L). In August 2013, total arsenic was reported at a concentration exceeding 10 ug/L at eighteen (18) wells (MW-4, MW-5S, MW-5D, MW-8, MW-9, MW-10, MW-11, OP-2, OP-5, BP-4, FPC-5A, FPC-6A, FPC-9A, AE-1A, AE-2A, AE-2B, AE-3A, AE-3B).

Total Manganese

A total of thirty (30) groundwater samples were submitted for analysis of total manganese. The EPA ICL for manganese is 300 ug/L, and the NHDES AGQS for manganese 840 ug/L.

Total manganese was reported at a concentration exceeding the ICL at twenty one (21) wells (MW-4, MW-5S, MW-5D, MW-6, MW-8, MW-9, MW-10, MW-11, OP-2, OP-5, BP-4, FPC-6A, FPC-6B, FPC-7B, AE-1A, AE-1B, AE-2A, AE-2B, AE-3A, AE-3B and AE-4A) and at a concentration exceeding the AGQS at twelve (12) wells (MW-4, MW-5S, MW-5D, MW-6, MW-9, MW-10, OP-2, OP-5, BP-4, FPC-6A, FPC-7B and AE-2B).

1,4-Dioxane

Groundwater samples from a subset of monitoring wells in OU-1 and OU-2 were submitted for analysis of 1,4-dioxane, including 9 monitoring wells in OU-1 and 13 monitoring wells in OU-2. The EPA has not established an ICL for 1,4-dioxane. The NHDES AGQS for 1,4-dioxane is 3 ug/L.

1,4-dioxane was reported at a concentration exceeding the AGQS at sixteen (16) wells (MW-4, MW-5S, MW-5D, MW-8, MW-9, MW-11, BP-4, GZ-105, FPC-5A, FPC-5B, FPC-6A, FPC-6B, AE-2A, AE-2B, AE-3A and AE-3B).

The locations of these exceedances are consistent with past events. Reported concentrations are consistent with past events and the information provided in the GMP permit renewal application.

Other than manganese, arsenic and 1,4-dioxane, analyzed parameters were not reported at concentrations above their respective regulatory standards. It is important to note that benzene ICL/AGQS exceedances occurred at MW-8 and GZ-105 in August 2012; however, benzene analyses were not completed at these wells in August 2013 because interval samples were collected and submitted only for analysis of arsenic, manganese and 1,4-dioxane.

5.3.2 Off-Site Water Supply Wells

Analytical results for VOCs (EPA Method 524 NHDES Full List) and 1,4-dioxane from the four off-site water supply wells sampled were tabulated and compared to EPA-established ICLs and NHDES-established AGQSs.

Consistent with results from previous monitoring events, no ICL or AGQS exceedances were reported at the four off-site water supply wells sampled. 1,4-dioxane was not reported present at a concentration above the laboratory detection limit of 0.25 ug/L in water supply well samples 415BHR and 346BHR. 1,4-dioxane was reported at very low concentrations close to the detection limit in two water supply wells (R-3 and 339BHR) at concentrations of 0.45 to 0.42 ug/L, respectively. 1,4-dioxane concentrations reported at R-3 and 339BHR are equivalent to concentrations previously reported at these locations.

Consistent with results from previous monitoring events, all other VOCs analyzed by EPA Method 524 (NHDES Full List) were reported as Not Detected above laboratory detection limits. It is worth noting that, an isolated detection of methyl tert-butyl ether (MTBE) was reported at R-3 in January 2008 and that MTBE was not detected in the following six consecutive annual sampling events (2009 to 2013). Therefore, the January 2008 detection of MTBE at R-3 is considered to be a false positive result.

5.4 Parameter Isoconcentration Maps and Cross Sections

Summit prepared isoconcentration maps showing the lateral and vertical distributions of total arsenic, total manganese and 1,4-dioxane concentrations in groundwater. The interpreted lateral distributions of arsenic, manganese and 1,4-dioxane in overburden and bedrock groundwater are shown on Figures 5 to 10. The interpreted vertical distributions of arsenic,

manganese and 1,4-dioxane in groundwater are shown on Figures 11 to 16. General conclusions based on a review of Figures 5 through 16 are discussed below.

- In general, arsenic, manganese and 1,4-dioxane concentrations in bedrock and overburden groundwater decrease with distance from the landfill area.

- The horizontal and vertical distributions of 1,4-dioxane, arsenic and manganese concentrations in bedrock and overburden groundwater are generally consistent with groundwater flow directions established using groundwater potentiometric surface elevations at wells and well couplets.

- The pattern of the 1,4-dioxane impacted groundwater area in bedrock and overburden groundwater is consistent with the predominant direction of groundwater flow being westerly away from the landfill area toward the Berry's Brook valley, where the direction of groundwater flow is to the north-northeast.

- The extent of the 1,4-dioxane impacted groundwater area extends beyond the area where elevated redox metal (arsenic, iron and manganese) concentrations are observed. This result is consistent with previous interpretations (Summit, 2013a) indicating that 1,4-dioxane defines the leading edge of the impacted groundwater area.

- Arsenic and/or manganese exceedances were or have been reported at several monitoring wells (FPC-7, AE-1 and AE-4, and historically at GZ-123, GZ-125 and FPC-2) located hydraulically upgradient or cross-gradient of the impacted groundwater area. This result is consistent with previous interpretations (Summit, 2013a) indicating the landfill in not considered to be the primary source of arsenic and manganese in groundwater and that a reducing condition in groundwater downgradient of the landfill resulted in the mobilization of naturally occurring arsenic and manganese present in overburden and bedrock.

5.5 Parameter Trend Analysis

Summit performed a Mann-Kendall statistical trend analysis test for total arsenic, total manganese and 1,4-dioxane data at groundwater monitoring points where regulatory threshold exceedances were reported in August 2012 or August 2013. Wells that were interval sampled in August 2013 were excluded from trend analyses because interval sampling data are not readily comparable to data collected by purging methods. Refer to Section 5.2 for a discussion of interval sampling data in the context of historical results.

The Mann-Kendall test is a statistical method for assessing the probability that an increasing trend exists in a given data set. The test evaluates each data point relative to previous data points to calculate the number of positive and negative differences between constituent concentrations. Based on the number of data points and the sum of the negative and positive differences between adjacent data points, the probability that a statistically significant trend exists is calculated at the confidence limit.

Summit completed the trend analysis using data collected since August 1998, and only evaluated data sets with four or more data points and two or more detections above the laboratory practical quantitative limit (PQL). Summit used a confidence limit of 95 percent to identify statistically significant trends (i.e., there is a 95 percent probability that the trend calculated by the test exists). Summit completed Mann-Kendall trend tests with ProUCL 5.0 (EPA, 2013a).

In instances where the Mann-Kendall test indicated no statistically significant trend was present, the coefficient of variation (CV) test is used to establish statistical evidence for parameter stabilization (i.e., to determine whether parameter concentrations were Stable or Not Stable). The CV of a dataset is the standard deviation divided by the mean. The lower the CV, the lower the variation in the data set. Parameter concentrations are considered to be Stable if the CV is less than or equal to 1, and Not Stable if the CV is greater than 1.

Time-series trend plots for each of the data sets were prepared and visually reviewed to verify that the last five years of data in each data set are consistent with statistical trend analysis results. The time-series trend plots are provided in Appendix E.

The results of Summit's statistical analysis and qualitative review of the time series charts for arsenic, manganese and 1,4-dioxane are provided in a summary table included in Appendix F. Conclusions drawn by Summit based on the time-series and statistical trend analysis include:

- 1,4-dioxane concentrations are stable at all wells, including off-site water supply wells R-3 and 339BHR; bedrock monitoring wells AE-2B and BP-4; and overburden monitoring wells screened in the outwash unit (MW-4, MW-9 & OP-2) and till unit (FPC-5A, FPC-8A, AE-2A & AE-3A).

- A decreasing trend in arsenic concentration indicative of improved groundwater quality is apparent in overburden (till) well AE-2A.

- A decreasing trend in manganese concentration indicative of improved groundwater quality is apparent at bedrock well AE-2B.

- An increasing trend in arsenic and manganese concentrations is apparent at overburden (outwash) well FPC-6A.

- A stable trend in arsenic and an increasing trend in manganese at overburden (outwash) well OP-2 may suggest a transition toward a more oxidizing environment that would be an improvement in water quality.

- Parameter concentrations at the remaining sampling points did not show significant trends.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Based on a review of analytical results for the August 2013 sampling event, Summit concludes the following:

Groundwater

- Water quality samples were collected from thirty monitoring wells, one leachate sampling location and four off-site water supply wells. Surface water quality samples were not collected due to insufficient water. Wells FPC-11A and FPC-11B were not sampled due to failed road box seals and surface water infiltration into well casings. Consistent with previous monitoring events, water supply well R-5 was not sampled because the residence was not in use and the well is out of service.
- Results of the Tier I Data Validation and Summit's review of the analytical data indicate the laboratory analytical data package is complete, of good quality, and meets data quality objectives. Results of Field Duplicate sampling and Matrix Spike/Matrix Spike Duplicate analyses show that the laboratory produced consistent and reproducible results. Equipment Blank and Trip Blank results show that sample integrity was maintained through sample collection and handling, and equipment decontamination procedures did not affect analytical results.
- In general, the parameters and locations that exceeded the regulatory thresholds are similar to historical monitoring events. Parameters reported at concentrations exceeding EPA ICLs and/or NHDES AGQSs were limited to arsenic, manganese and 1,4-dioxane.
- Arsenic concentrations exceeding the EPA ICL and NHDES AGQS were reported in 10 of the 11 monitoring wells sampled in OU-1, and 8 of the 19 monitoring wells sampled in OU-2.
- Manganese concentrations exceeding the EPA ICL (300 ug/L) were reported in 11 of the 11 monitoring wells sampled in OU-1, and 10 of the 19 monitoring wells sampled in OU-2. Manganese concentrations exceeding the AGQS (840 ug/L) were reported in 9 of the 11 monitoring wells in OU-1, and 3 of the 19 monitoring wells in OU-2.
- Groundwater samples from a subset of monitoring wells in OU-1 and OU-2 were submitted for analysis of 1,4-dioxane. 1,4-dioxane concentrations exceeding the NHDES AGQS were reported in 7 of the 9 samples from monitoring wells in OU-1, and 9 of the 12 samples from monitoring wells in OU-2.
- Groundwater quality results for August 2013 met EPA-established ICLs for benzene, chlorobenzene, tetrahydrofuran, methyl ethyl ketone (2-butanone), antimony, beryllium, chromium, lead, nickel and vanadium. Benzene ICL exceedances occurred at MW-8 and GZ-105 in August 2012; however, benzene analyses were not completed at these wells in August 2013 because interval samples were collected and submitted only for analysis of arsenic, manganese and 1,4-dioxane.
- Consistent with results from previous monitoring events, no ICL or AGQS exceedances were reported at the four off-site water supply wells sampled. In August 2013, 1,4-

dioxane was reported at very low concentrations close to the detection limit in two water supply wells (R-3 and 339BHR) at concentrations of 0.45 to 0.42 ug/L, respectively. 1,4-dioxane was not reported present at a concentration above the laboratory detection limit of 0.25 ug/L in water supply well samples 415BHR and 346BHR. Statistical and visual trend analyses indicate that 1,4-dioxane concentrations are stable at R-3 and 339BHR and at two monitoring well couplets (FPC-5 and FPC-6) located hydraulically upgradient of R-3 and 339BHR.

- Trend analysis results for arsenic, manganese and 1,4-dioxane concentrations in groundwater indicate that water quality is stable at the majority of the wells in OU-1 and OU-2. Trends in arsenic and/or manganese concentrations at AE-2A, AE-2B and OP-2 indicate a general improvement in groundwater quality. Trends in arsenic and manganese concentrations at FPC-6A indicate a general decline in groundwater quality at this location. Trends indicative of a change in water quality were not identified at the remaining sampling points.

- Interval samples were collected in August 2013 at eleven bedrock monitoring wells with screen intervals longer than 10 feet to determine whether contaminant stratification is present and to establish the depth of tubing intakes for future monitoring events. Significant differences in arsenic, manganese and/or 1,4-dioxane concentrations, indicative of varying degrees of contaminant stratification, were present at 6 of the 11 wells tested. The proposed tubing intake depths for future monitoring events are identified in Table 4.

Surface Water

- Surface water samples were not collected in August 2013 due to insufficient water at all surface water sampling locations.

Leachate

- Analytical results from leachate sampling point L-1 are similar to those previously reported at this location. It is important to note that the landfill does not have a leachate collection system, and “leachate” samples collected at L-1 are more representative of shallow overburden groundwater discharging to an impounded wetland area on the northwestern margin of the landfill.

6.2 Recommendations

Based on observations and monitoring results for August 2013, Summit recommends the following:

- EPA/NHDES approval is requested for the proposed changes to depth of tubing intake listed in Table 4. New sampling tubing must be installed in Table 4 wells prior to the August 2014 sampling event.
- EPA/NHDES approval is requested for the implementation of a no-purge, low-flow sampling method at AE-2B and AE-4B.
- Interval sampling should be conducted at FPC-11B prior to or during the August 2014 monitoring event to establish the depth of the tubing intake used for subsequent monitoring events.
- Well FPC-5A should be repaired or redeveloped.
- The PVC casing for FPC-11C was modified during repair work on January 10, 2014 and the measuring point elevation needs to be resurveyed.
- Given the historical database for a number of sampling locations and the improving or stable water quality at many locations, NHDES/EPA approval is requested for a reduction in the number of analytical parameters and/or wells where groundwater monitoring is required.
- Revisions to the EMP based on the findings and recommendations discussed in this report and as required by the new GMP for the Site should be completed following EPA/NHDES review of this report.

7.0 REFERENCES

EPA (2013a), ProUCL Version 5.0.0. http://www.epa.gov/osp/hstl/tsc/software.htm

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Summit (2013a), Groundwater Management Zone Evaluation, Coakley Landfill, North Hampton, New Hampshire. Summit Environmental Consultants, Inc. April 2013.

Summit (2013b), Addendum to the Environmental Monitoring Plan (July 2013 Revision 2.0), Coakley Landfill, North Hampton, New Hampshire. Summit Environmental Consultants, September 17, 2013.

Summit (2013c), Response to August 2013 Technical Systems Audit, Coakley Landfill Superfund Site, North Hampton, New Hampshire. Summit Environmental Consultants, November 14, 2013.

FIGURES

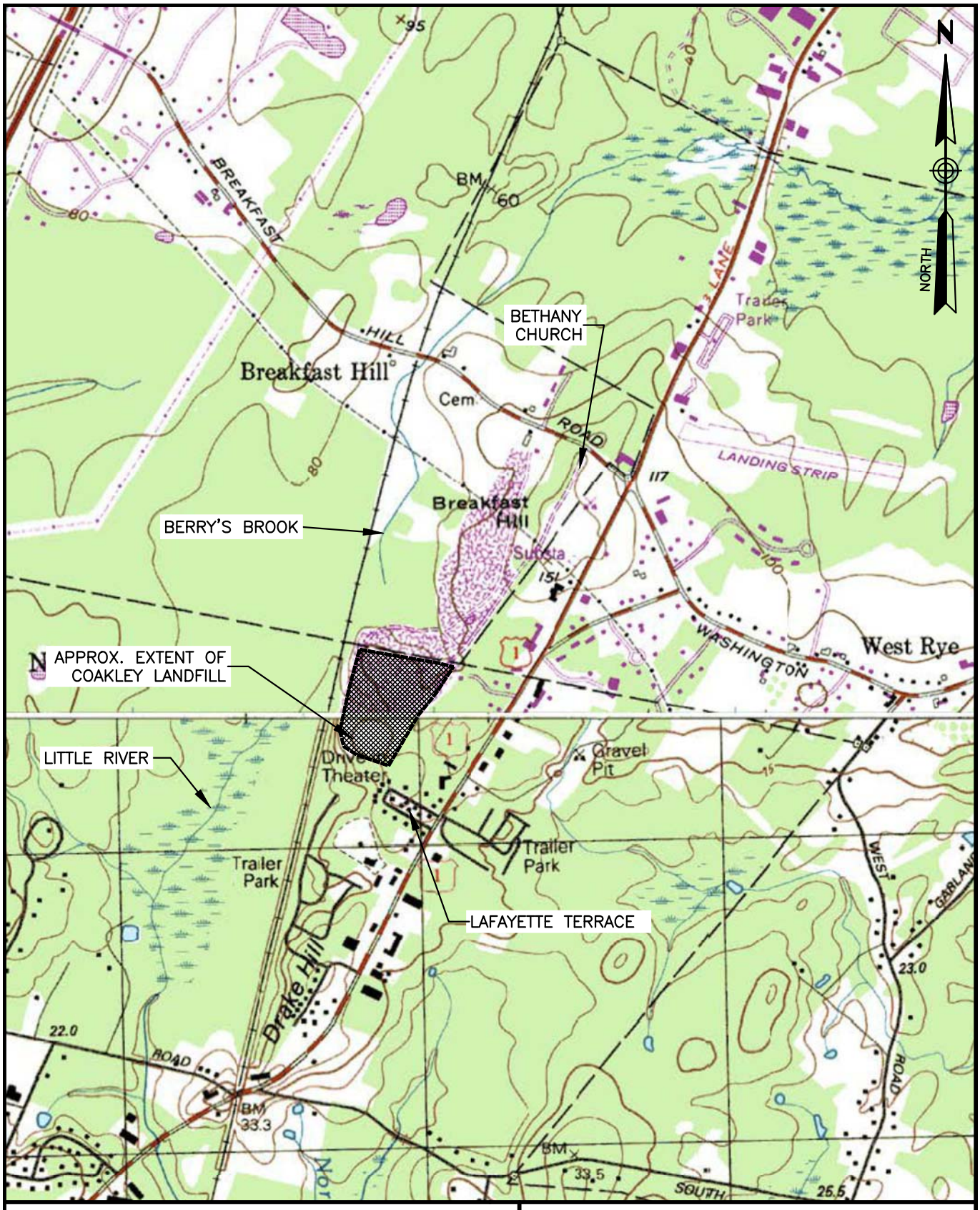


FIGURE 1
SITE LOCATION MAP

COAKLEY LANDFILL – NORTH HAMPTON, NH

PREPARED FOR

THE COAKLEY LANDFILL GROUP

DATE: JAN. 2014	DRAWN BY: SBM	CHECKED BY: MAD
JOB: 12–3173	1" = 1,500 FEET	FILE: 12–3173FIG1

Summit Environmental Consultants
A CES, Inc. Company

640 MAIN ST.
LEWISTON, MAINE 04240

Tel.: (207) 795–6009
Fax: (207) 795–6128

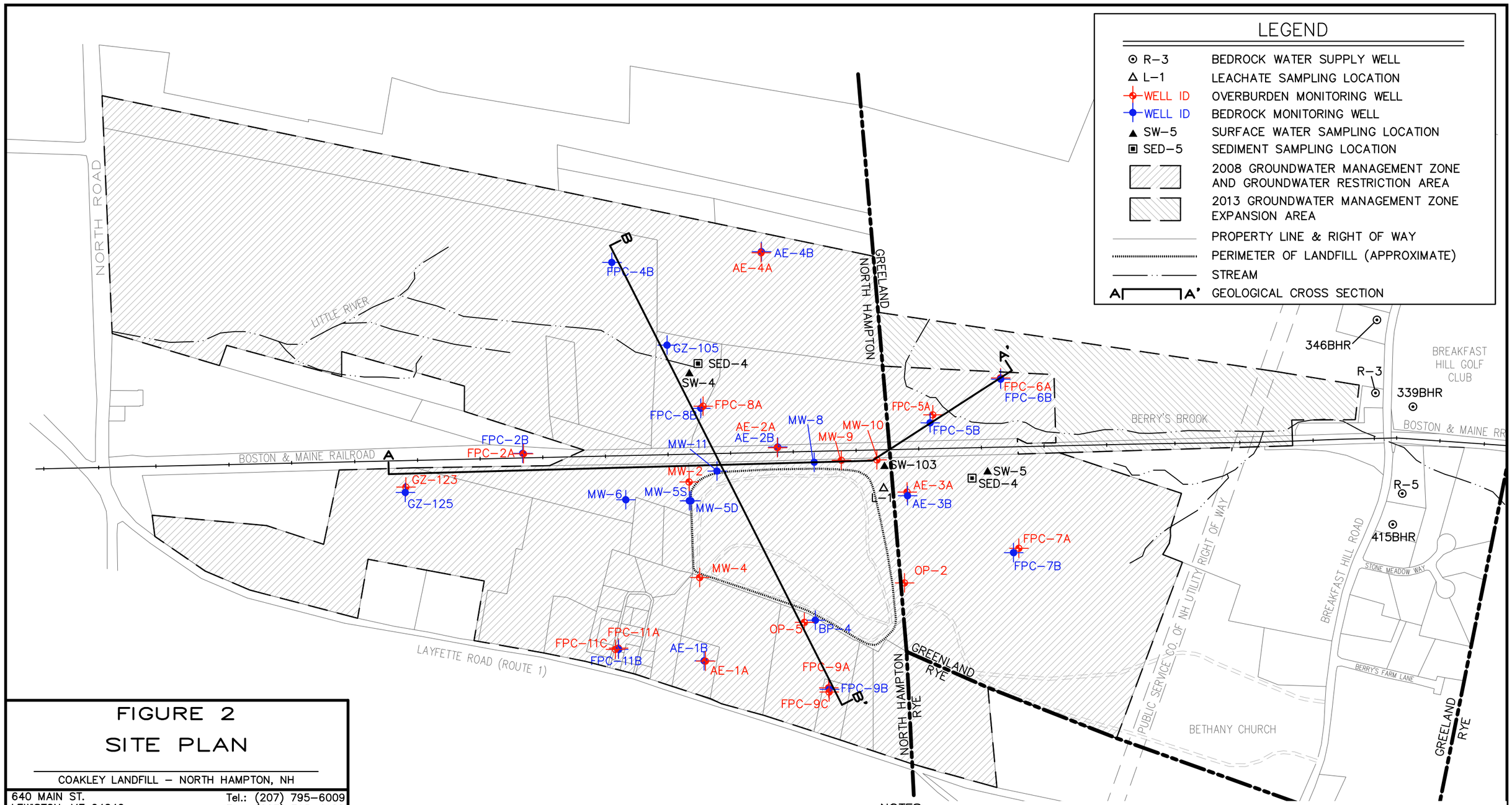


FIGURE 2
SITE PLAN

COAKLEY LANDFILL – NORTH HAMPTON, NH

640 MAIN ST.
LEWISTON, ME 04240
Tel.: (207) 795-6009
Fax: (207) 795-6128
www.summitenv.com
Summit Environmental Consultants
A CES, Inc. Company

DATE: NOV. 2013	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12-3173	CHECKED BY: MAD	CADD: 12-3173-SITE.DWG

NOTES:

1. THIS PLAN IS BASED UPON PLANS INCLUDED IN THE 2012 ANNUAL REPORT PREPARED BY PROVEN & LORBER, INC. AND ON A PLAN BY GOLDER ASSOCIATES, INC. TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07.

2. GMZ BOUNDARY IS BASED UPON "GMZ BOUNDARY PLAN" DATED MAY 9, 2008 INCLUDED IN THE 2008 GMP APPLICATION PREPARED BY HANCOCK ASSOCIATES, AND 2013 GMZ EXPANSION AREA ESTABLISHED BY THE 2013 GMP DATED JANUARY 7, 2014.

3. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE. PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).

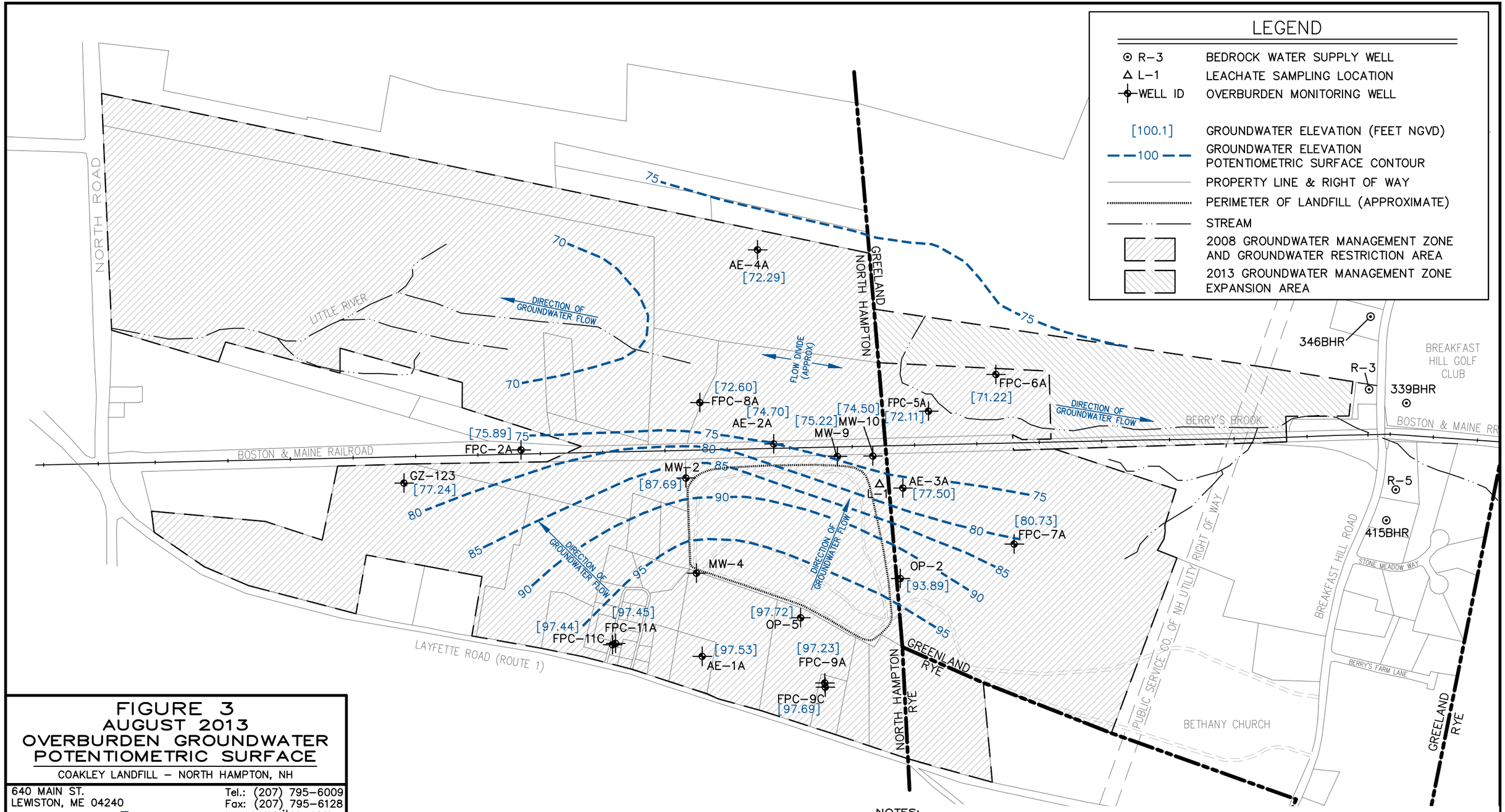


FIGURE 3
AUGUST 2013
OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE

COAKLEY LANDFILL – NORTH HAMPTON, NH

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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–GW.DWG

NOTES:

1. THIS PLAN IS BASED UPON PLANS INCLUDED IN THE 2012 ANNUAL REPORT PREPARED BY PROVEN & LORBER, INC. AND ON A PLAN BY GOLDER ASSOCIATES, INC. TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07.

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3. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE. PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R–1 (DATED APRIL 1, 2013).

LEGEND

- ⊙ R–3 — BEDROCK WATER SUPPLY WELL
- △ L–1 — LEACHATE SAMPLING LOCATION
- WELL ID — BEDROCK MONITORING WELL
- [100.1] — GROUNDWATER ELEVATION (FEET NGVD)
- 100 — GROUNDWATER ELEVATION POTENTIOMETRIC SURFACE CONTOUR
- PROPERTY LINE & RIGHT OF WAY
- PERIMETER OF LANDFILL (APPROXIMATE)
- STREAM
- 2008 GROUNDWATER MANAGEMENT ZONE AND GROUNDWATER RESTRICTION AREA
- 2013 GROUNDWATER MANAGEMENT ZONE EXPANSION AREA

NORTH ROAD
LITTLE RIVER
BOSTON & MAINE RAILROAD
LAYFETTE ROAD (ROUTE 1)
GREELAND
NORTH HAMPTON
BERRY'S BROOK
BOSTON & MAINE RR
BREAKFAST HILL GOLF CLUB
BREAKFAST HILL ROAD
STONE MEADOW WAY
BERRY'S FARM LANE
PUBLIC SERVICE CO. OF NH UTILITY RIGHT OF WAY
BETHANY CHURCH
NORTH HAMPTON
RYE
GREENLAND
RYE

DIRECTION OF GROUNDWATER FLOW
FLOW DIVIDE (APPROX)

[70.43] FPC–4B
AE–4B [72.12]
[70.70] GZ–105
[71.60] FPC–6B
[73.64] FPC–5B
[72.40] FPC–8B
[75.30] MW–8 [77.42]
FPC–2B [75.22]
MW–11
AE–2B
[82.10]
[80.79] GZ–125
[90.40] MW–6
[90.06] MW–5S
MW–5D [89.52]
L–1
AE–3B [77.84]
FPC–7B [80.42]
[97.30] FPC–11B
AE–1B [97.51]
BP–A [97.39]
FPC–9B [97.22]
346BHR
339BHR
415BHR
R–3
R–5

70 72 75 80 85 90 95

NORTH

SCALE: 1" = 600'

0 300 600 1200 1800

FIGURE 4
AUGUST 2013
BEDROCK GROUNDWATER POTENTIOMETRIC SURFACE

COAKLEY LANDFILL – NORTH HAMPTON, NH

640 MAIN ST.
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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–GW.DWG

NOTES:

1. THIS PLAN IS BASED UPON PLANS INCLUDED IN THE 2012 ANNUAL REPORT PREPARED BY PROVEN & LORBER, INC. AND ON A PLAN BY GOLDER ASSOCIATES, INC. TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07.

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3. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE. PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R–1 (DATED APRIL 1, 2013).

LEGEND

- R–3 — BEDROCK WATER SUPPLY WELL
- L–1 — LEACHATE SAMPLING LOCATION
- WELL ID — OVERBURDEN MONITORING WELL
- EXISTING AND PROPOSED GROUNDWATER MANAGEMENT ZONE AND GROUNDWATER RESTRICTION AREA
- PROPERTY LINE & RIGHT OF WAY
- STREAM
- PERIMETER OF LANDFILL (APPROXIMATE)
- [50] — CONCENTRATION IN UG/L
- 10 — ISOCONCENTRATION CONTOUR (UG/L)

NA = NOT ANALYZED ; BDL = BELOW DETECTION LIMIT
NS = NOT SAMPLED

NORTH ROAD
LITTLE RIVER
AE–4A [BDL]
GREELAND
NORTH HAMPTON
346BHR
R–3
339BHR
BREAKFAST HILL GOLF CLUB
BOSTON & MAINE RR
BERRY'S BROOK
[2] FPC–8A
10
FPC–6A [18]
FPC–5A [52]
50
[15] MW–10
[46] MW–9
AE–2A
[NS] FPC–2A
BOSTON & MAINE RAILROAD
[190]
MW–2 [NS]
GZ–123 [NS]
100
L–1
AE–3A [140]
[3] FPC–7A
R–5
415BHR
50
10
[200] OPL–2
[53] MW–4
STONE MEADOW WAY
BREAKFAST HILL ROAD
PUBLIC SERVICE CO. OF NH UTILITY RIGHT OF WAY
50
[NS] FPC–11A
[NS] FPC–11C
OP–5 [30]
[45] FPC–9A
[18] AE–1A
10
LAYFETTE ROAD (ROUTE 1)
GREENLAND
RYE
NORTH HAMPTON
RYE
FPC–9C [NS]
BERRY'S FARM LANE
BETHANY CHURCH
GREELAND
RYE

FIGURE 5

AUGUST 2013
LATERAL DISTRIBUTION OF TOTAL ARSENIC IN OVERBURDEN GROUNDWATER

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JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–ISO.DWG

NORTH

SCALE: 1" = 600'

0 300 600 1200 1800

NOTES:

1. THIS PLAN IS BASED UPON PLANS INCLUDED IN THE 2012 ANNUAL REPORT PREPARED BY PROVEN & LORBER, INC. AND ON A PLAN BY GOLDER ASSOCIATES, INC. TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07.

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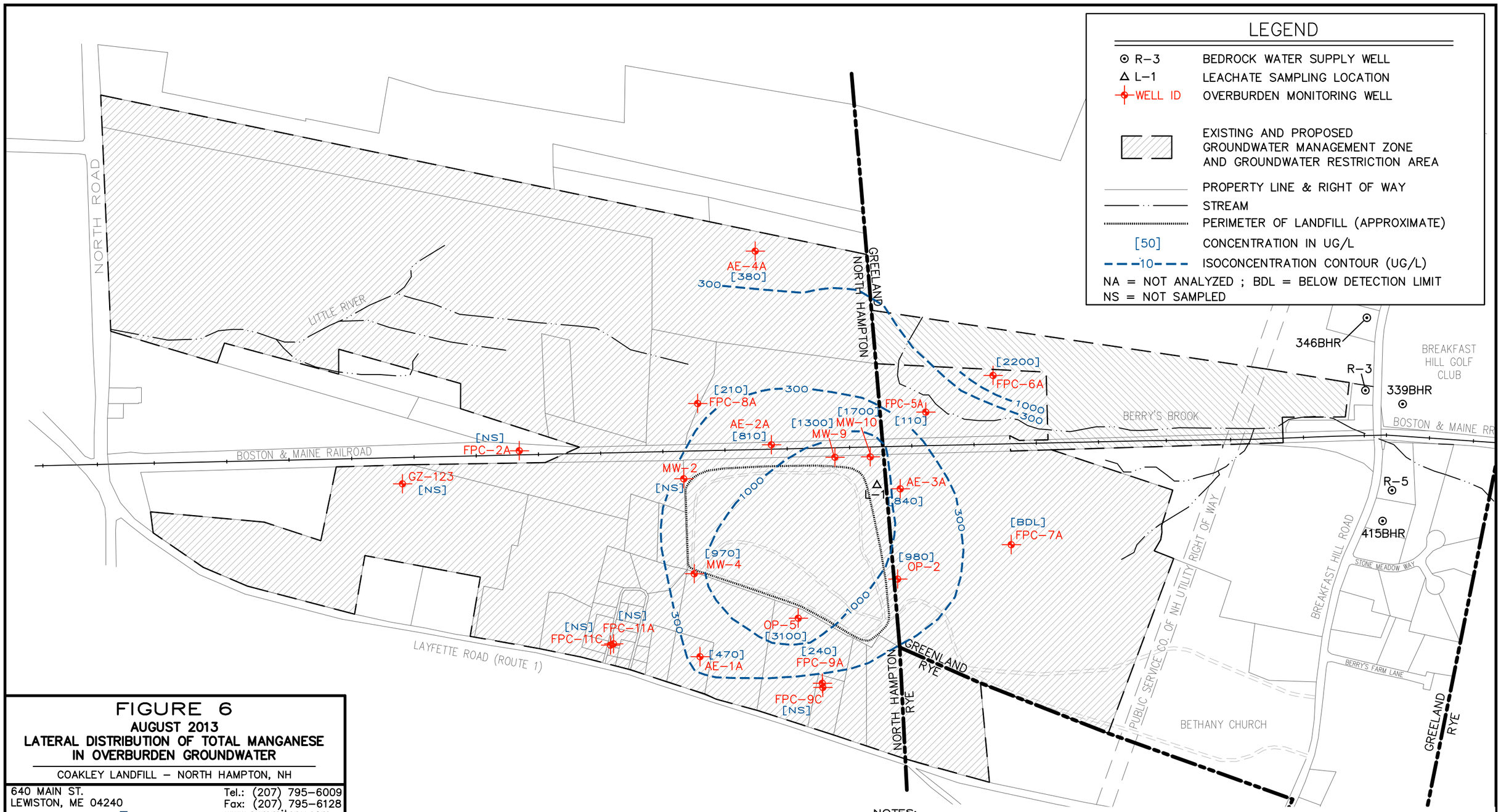


FIGURE 6

AUGUST 2013
LATERAL DISTRIBUTION OF TOTAL MANGANESE IN OVERBURDEN GROUNDWATER

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NOTES:

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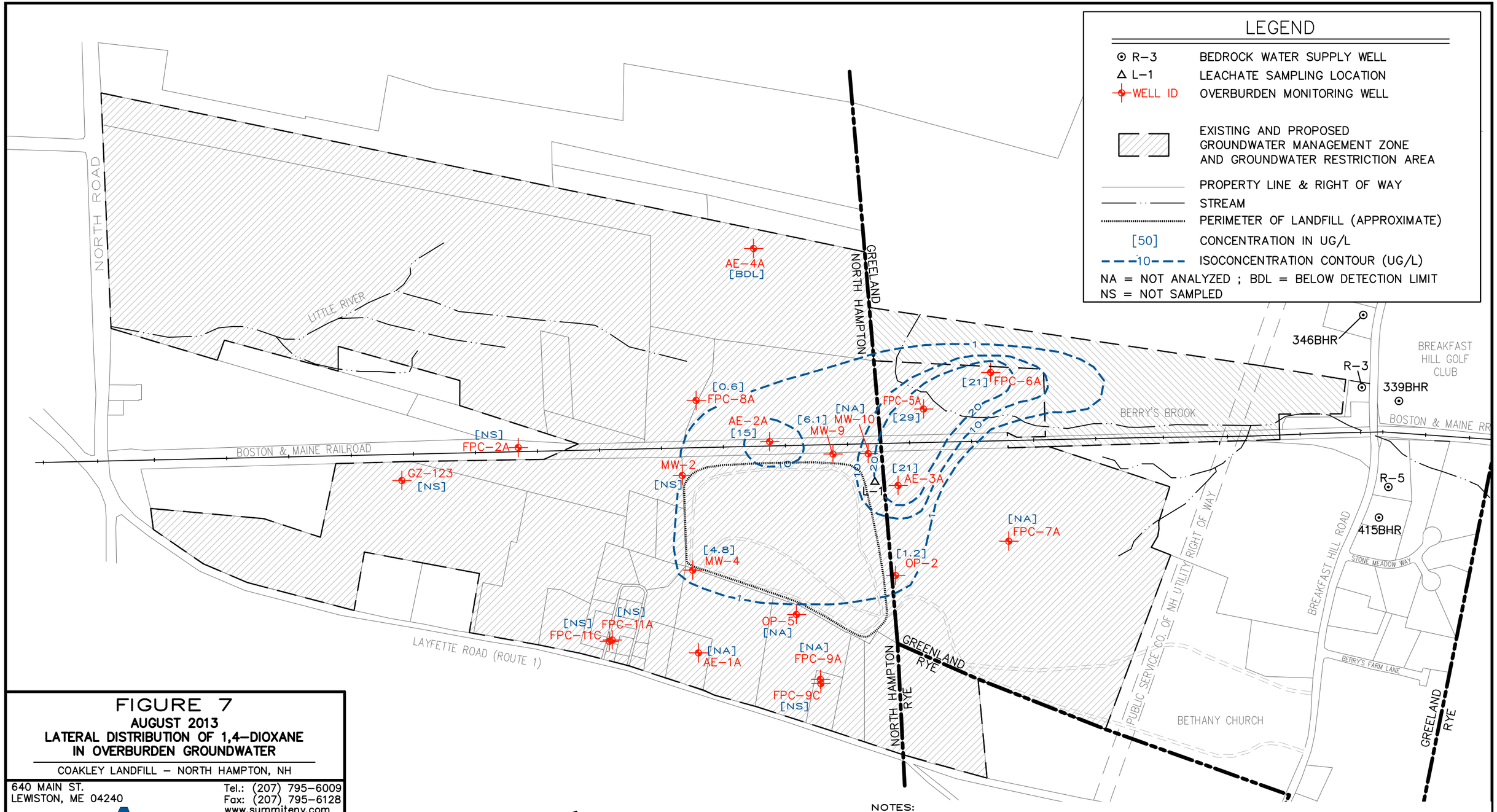


FIGURE 7

AUGUST 2013
LATERAL DISTRIBUTION OF 1,4-DIOXANE IN OVERBURDEN GROUNDWATER

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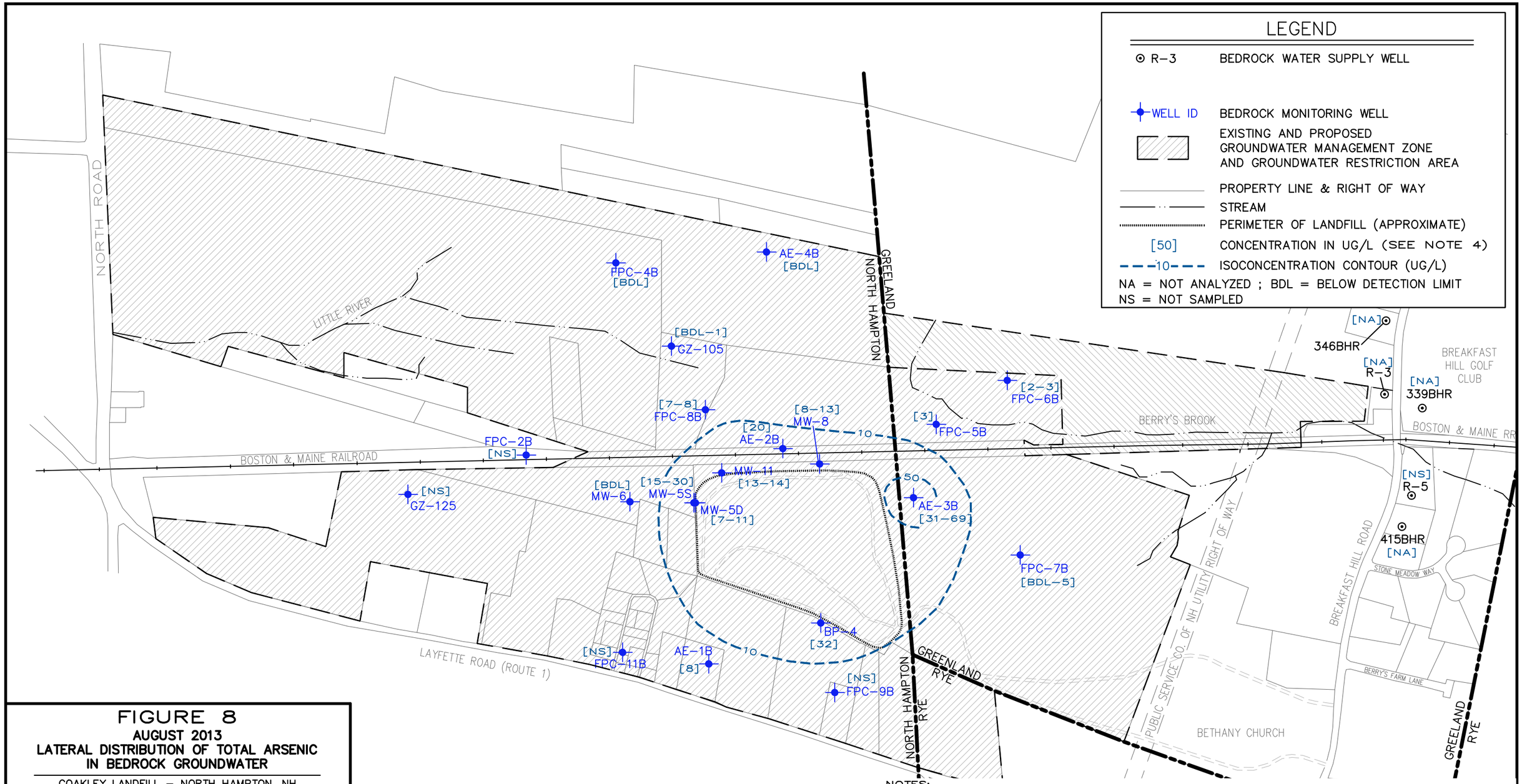
DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12-3173	CHECKED BY: MAD	CADD: 12-3173-ISO.DWG

NOTES:

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3. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE. PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).



NORTH

SCALE: 1" = 600'

0 300 600 1200 1800

FIGURE 8

AUGUST 2013
LATERAL DISTRIBUTION OF TOTAL ARSENIC IN BEDROCK GROUNDWATER

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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12-3173	CHECKED BY: MAD	CADD: 12-3173-ISO.DWG

NOTES:

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4. BEDROCK WELLS WITH SCREENED INTERVALS GREATER THAN 10 FEET WERE INTERVAL SAMPLED IN AUGUST 2013; RANGES OF INTERVAL SAMPLING RESULTS ARE SHOWN. CONTOURS WERE DRAWN USING THE HIGHEST REPORTED CONCENTRATIONS.

LEGEND

- ⊙ R-3 — BEDROCK WATER SUPPLY WELL
- WELL ID — BEDROCK MONITORING WELL
- EXISTING AND PROPOSED GROUNDWATER MANAGEMENT ZONE AND GROUNDWATER RESTRICTION AREA
- PROPERTY LINE & RIGHT OF WAY
- STREAM
- PERIMETER OF LANDFILL (APPROXIMATE)
- [50] — CONCENTRATION IN UG/L (SEE NOTE 4)
- 10 — ISOCONCENTRATION CONTOUR (UG/L)

NA = NOT ANALYZED ; BDL = BELOW DETECTION LIMIT
NS = NOT SAMPLED

NORTH ROAD
LITTLE RIVER
GREELAND
NORTH HAMPTON
BOSTON & MAINE RAILROAD
BERRY'S BROOK
BOSTON & MAINE RR
BREAKFAST HILL GOLF CLUB
LAYFETTE ROAD (ROUTE 1)
PUBLIC SERVICE CO. OF NH UTILITY RIGHT OF WAY
BREAKFAST HILL ROAD
STONE MEADOW WAY
BERRY'S FARM LANE
BETHANY CHURCH
GREENLAND
RYE
NORTH HAMPTON
RYE
GREELAND
RYE

FPC-4B [25-46]
AE-4B [8]
[23-45] GZ-105
[34-39] FPC-8B
[35-1300] MW-8
[1200] AE-2B
FPC-2B [NS]
[53-58] FPC-5B
[360-380] FPC-6B
300
[NA] 346BHR
[NA] R-3
[NA] 339BHR
[NS] R-5
[NS] GZ-125
[990] MW-6
[2100-3000] MW-5S
MW-11 [370-390]
MW-5D [640-650]
2000
AE-3B [330-450]
FPC-7B [400-1100]
[NA] 415BHR
BP-4 [960]
[NS] FPC-11B
AE-1B [490]
[NS] FPC-9B

NOTES:

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NORTH

SCALE: 1" = 600'

0 300 600 1200 1800

FIGURE 9

AUGUST 2013
LATERAL DISTRIBUTION OF TOTAL MANGANESE IN BEDROCK GROUNDWATER

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LEGEND

- ⊙ R-3 — BEDROCK WATER SUPPLY WELL
- WELL ID — BEDROCK MONITORING WELL
- EXISTING AND PROPOSED GROUNDWATER MANAGEMENT ZONE AND GROUNDWATER RESTRICTION AREA
- PROPERTY LINE & RIGHT OF WAY
- STREAM
- PERIMETER OF LANDFILL (APPROXIMATE)
- [50] — CONCENTRATION IN UG/L (SEE NOTE 4)
- 10 — ISOCONCENTRATION CONTOUR (UG/L)

NA = NOT ANALYZED ; BDL = BELOW DETECTION LIMIT
NS = NOT SAMPLED

NORTH ROAD
LITTLE RIVER
BOSTON & MAINE RAILROAD
LAYFETTE ROAD (ROUTE 1)
GREELAND
NORTH HAMPTON
RYE
BERRY'S BROOK
BOSTON & MAINE RR
BREAKFAST HILL GOLF CLUB
BREAKFAST HILL ROAD
STONE MEADOW WAY
BERRY'S FARM LANE
PUBLIC SERVICE CO. OF NH UTILITY RIGHT OF WAY
BETHANY CHURCH

FPC-4B [BDL]
AE-4B [NA]
GZ-105 [0.6-5.3]
FPC-8B [0.70-0.93]
FPC-2B [NS]
AE-2B [88]
MW-8 [240-250]
MW-14 [27-34]
FPC-6B [12-18]
FPC-5B [63-67]
346BHR [BDL]
[0.45]
R-3
[0.42]
339BHR
[NS]
R-5
415BHR [BDL]
GZ-125 [NS]
MW-6 [BDL]
MW-5S [46-71]
MW-5D [120-190]
AE-3B [24-25]
FPC-7B [BDL]
BP-4 [9.6]
FPC-11B [NS]
AE-1B [NA]
FPC-9B [NS]

3
50
100
200

NOTES:

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NORTH

SCALE: 1" = 600'

0 300 600 1200 1800

FIGURE 10
AUGUST 2013
LATERAL DISTRIBUTION OF 1,4-DIOXANE IN BEDROCK GROUNDWATER

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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12-3173	CHECKED BY: MAD	CADD: 12-3173-ISO.DWG

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite–biotite granite, quartz–feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta–graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION – OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

10 ISOCONCENTRATION CONTOUR

A (SOUTH) A' (NORTH)

ELEVATION

+120'

+80'

+40'

SEA LEVEL

-40'

-80'

-120'

-160'

GZ–125 (119' E)
GZ–123 (86' E)
FPC–2B (108' W)
FPC–2A (105' W)
MW–6 (206' E)
MW–2 (104' E)
MW–5S/5D (224' E)
MW–11 (39' E)
AE–2A (99' W)
AE–2B (104' W)
MW–8 (0')
MW–9 (8' W)
MW–10 (11' E)
FPC–5B (3' W)
FPC–5A (37' W
STREAM
FPC–6B (7' E)
FPC–6A (1' W)

NS
NS
NS
NS
BDL
190
20
46
15
18
14
13
13
30
30
28
23
15
11
9
7
8
13
11
3
3
3
3
2
2
52
50 UG/L
20 UG/L
10 UG/L

BEND IN CROSS SECTION LINE

0' 400' 800' 1,200' 1,600' 2,000' 2,400' 2,800' 3,200' 3,600' 4,000' 4,400'

NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT (<1 UG/L)

HORIZONTAL SCALE: 1" = 400'

0 200 400 800 1200

VERTICAL SCALE: 1" = 40'

0 20 40 80 120

FIGURE 11

AUGUST 2013
VERTICAL DISTRIBUTION OF TOTAL ARSENIC IN GROUNDWATER GEOLOGICAL CROSS SECTION A–A'

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JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–CROSS

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite–biotite granite, quartz–feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta–graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION – OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

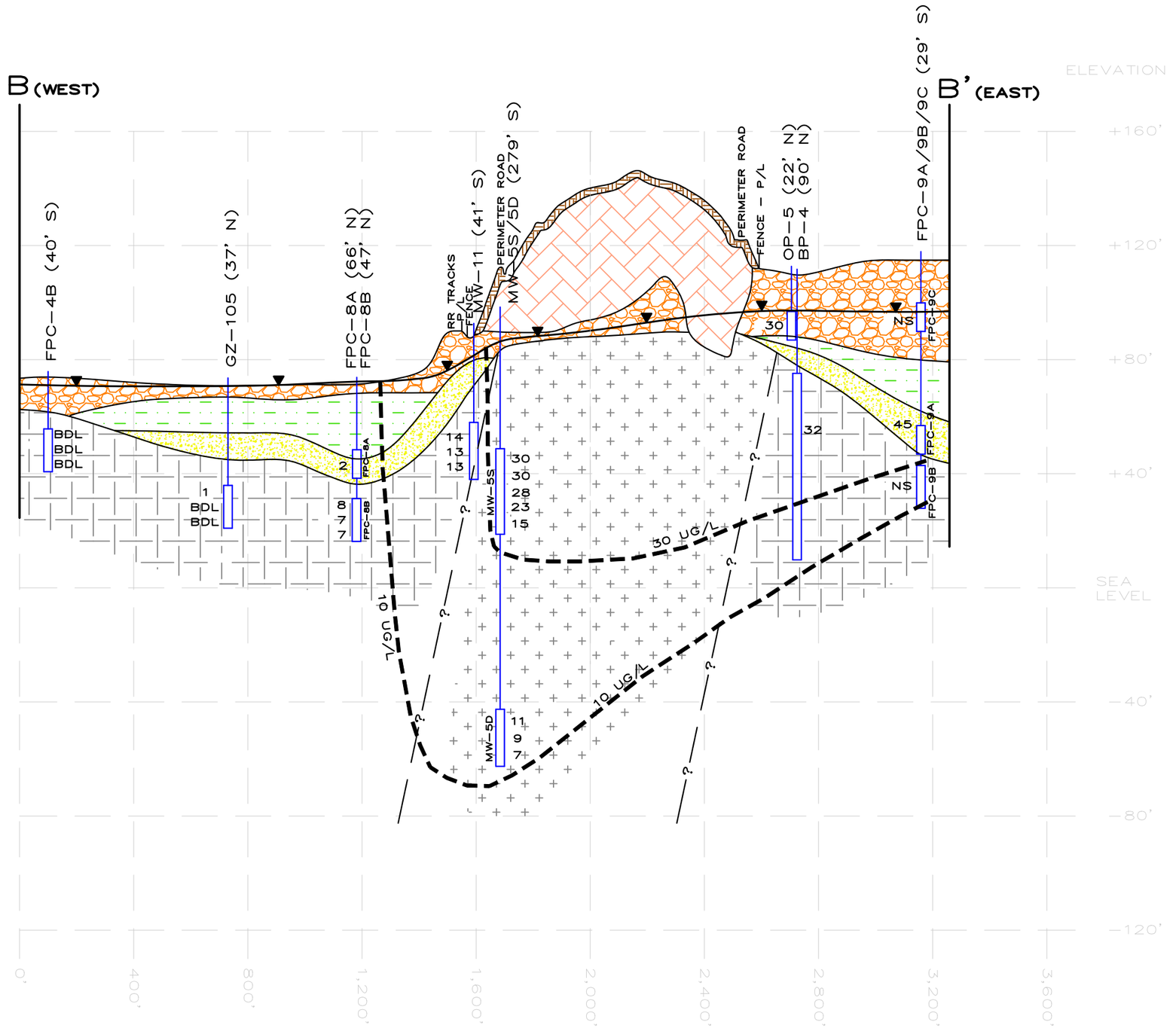
WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10 — CONCENTRATION IN UG/L

SCREENED / OPEN INTERVAL

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

--10-- ISOCONCENTRATION CONTOUR



NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT (< 1 UG/L)

HORIZONTAL SCALE: 1" = 400'

0 200 400 800 1200

VERTICAL SCALE: 1" = 40'

0 20 40 80 120

FIGURE 12

AUGUST 2013
VERTICAL DISTRIBUTION OF TOTAL ARSENIC IN GROUNDWATER
GEOLOGICAL CROSS SECTION B–B'

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FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite–biotite granite, quartz–feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta–graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION – OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

10 — GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

--100-- ISOCONCENTRATION CONTOUR

A (SOUTH) A' (NORTH)

GZ–125 (119' E) GZ–123 (86' E) FPC–2B (108' W) FPC–2A (105' W) MW–6 (206' E) MW–2 (104' E) MW–5S/5D (224' E) MW–11 (39' E) AE–2A (99' W) AE–2B (104' W) MW–8 (0') MW–9 (8' W) MW–10 (11' E) FPC–5B (3' W) FPC–5A (37' W) STREAM FPC–6B (7' E) FPC–6A (1' W)

ELEVATION +120' +80' +40' SEA LEVEL –40' –80' –120' –160'

0' 400' 800' 1,200' 1,600' 2,000' 2,400' 2,800' 3,200' 3,600' 4,000' 4,400'

BEND IN CROSS SECTION LINE

NS NS NS NS NS NS

GZ–125 GZ–123 FPC–2B FPC–2A MW–6 MW–2 MW–5S MW–5D MW–11 AE–2A AE–2B MW–8 MW–9 MW–10 FPC–5B FPC–5A FPC–6B FPC–6A

3000 2800 2500 2100 2500

990

640 650 640

370 390 380

810

1000 UG/L 1200

35 1300 1200

1300 1700

110

58 53 54

2300

380 360 370

1000 UG/L

300 UG/L

NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT

HORIZONTAL SCALE: 1" = 400'
0 200 400 800 1200

VERTICAL SCALE: 1" = 40'
0 20 40 80 120

FIGURE 13

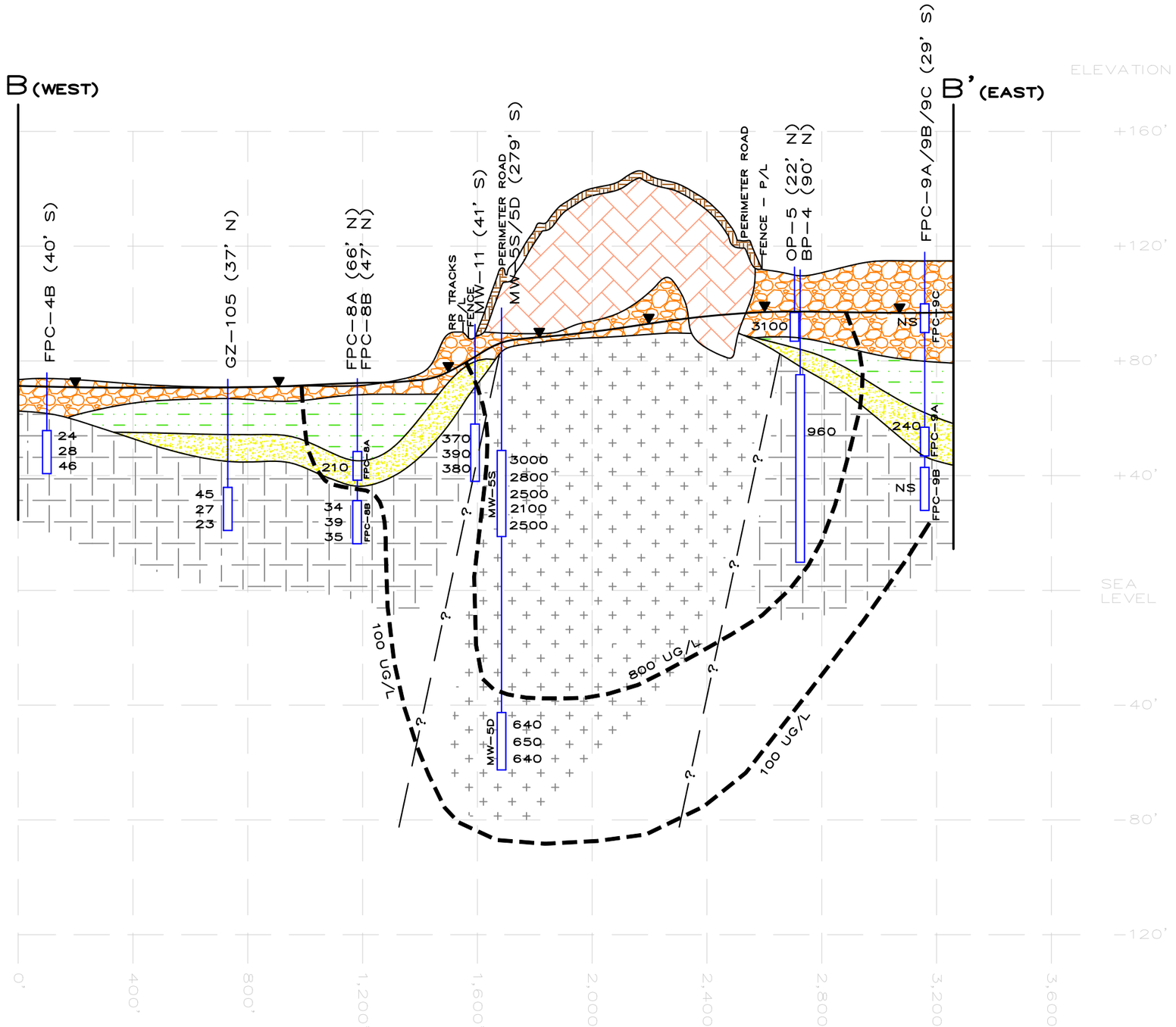
AUGUST 2013
VERTICAL DISTRIBUTION OF TOTAL MANGANESE IN GROUNDWATER
GEOLOGICAL CROSS SECTION A–A'

COAKLEY LANDFILL – NORTH HAMPTON, NH

640 MAIN ST.
LEWISTON, ME 04240
Tel.: (207) 795–6009
Fax: (207) 795–6128
www.summitenv.com

Summit Environmental Consultants
A CES, Inc. Company

DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–CROSS



FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite–biotite granite, quartz–feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta–graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION – OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

100 ISOCONCENTRATION CONTOUR

FIGURE 14

AUGUST 2013
VERTICAL DISTRIBUTION OF TOTAL MANGANESE IN GROUNDWATER
GEOLOGICAL CROSS SECTION B–B'

COAKLEY LANDFILL – NORTH HAMPTON, NH

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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–CROSS

NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT

HORIZONTAL SCALE: 1" = 400'
0 200 400 800 1200

VERTICAL SCALE: 1" = 40'
0 20 40 80 120

FILL MATERIAL

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BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

100 ISOCONCENTRATION CONTOUR

A (SOUTH) A' (NORTH)

ELEVATION +120' +80' +40' SEA LEVEL -40' -80' -120' -160'

GZ–125 (119' E) GZ–123 (86' E) FPC–2B (108' W) FPC–2A (105' W) MW–6 (206' E) MW–2 (104' E) MW–5S/5D (224' E) MW–11 (39' E) AE–2A (99' W) AE–2B (104' W) MW–8 (0') MW–9 (8' W) MW–10 (11' E) FPC–5B (3' W) FPC–5A (37' W) STREAM FPC–6B (7' E) FPC–6A (1' W)

NS NS NS NS NS 71 55 60 46 50 BDL 34 27 27 15 88 6.1 240 250 250 NA 29 64 67 63 190 120 140 21 18 13 12

100 UG/L 50 UG/L 3 UG/L

BEND IN CROSS SECTION LINE

0' 400' 800' 1,200' 1,600' 2,000' 2,400' 2,800' 3,200' 3,600' 4,000' 4,400'

NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT (< 0.25 UG/L)

HORIZONTAL SCALE: 1" = 400'
0 200 400 800 1200

VERTICAL SCALE: 1" = 40'
0 20 40 80 120

FIGURE 15

AUGUST 2013
VERTICAL DISTRIBUTION OF 1,4–DIOXANE IN GROUNDWATER GEOLOGICAL CROSS SECTION A–A'

COAKLEY LANDFILL – NORTH HAMPTON, NH

640 MAIN ST.
LEWISTON, ME 04240
Tel.: (207) 795–6009
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DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–CROSS

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse gravel, little silt.

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METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta–graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION – OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

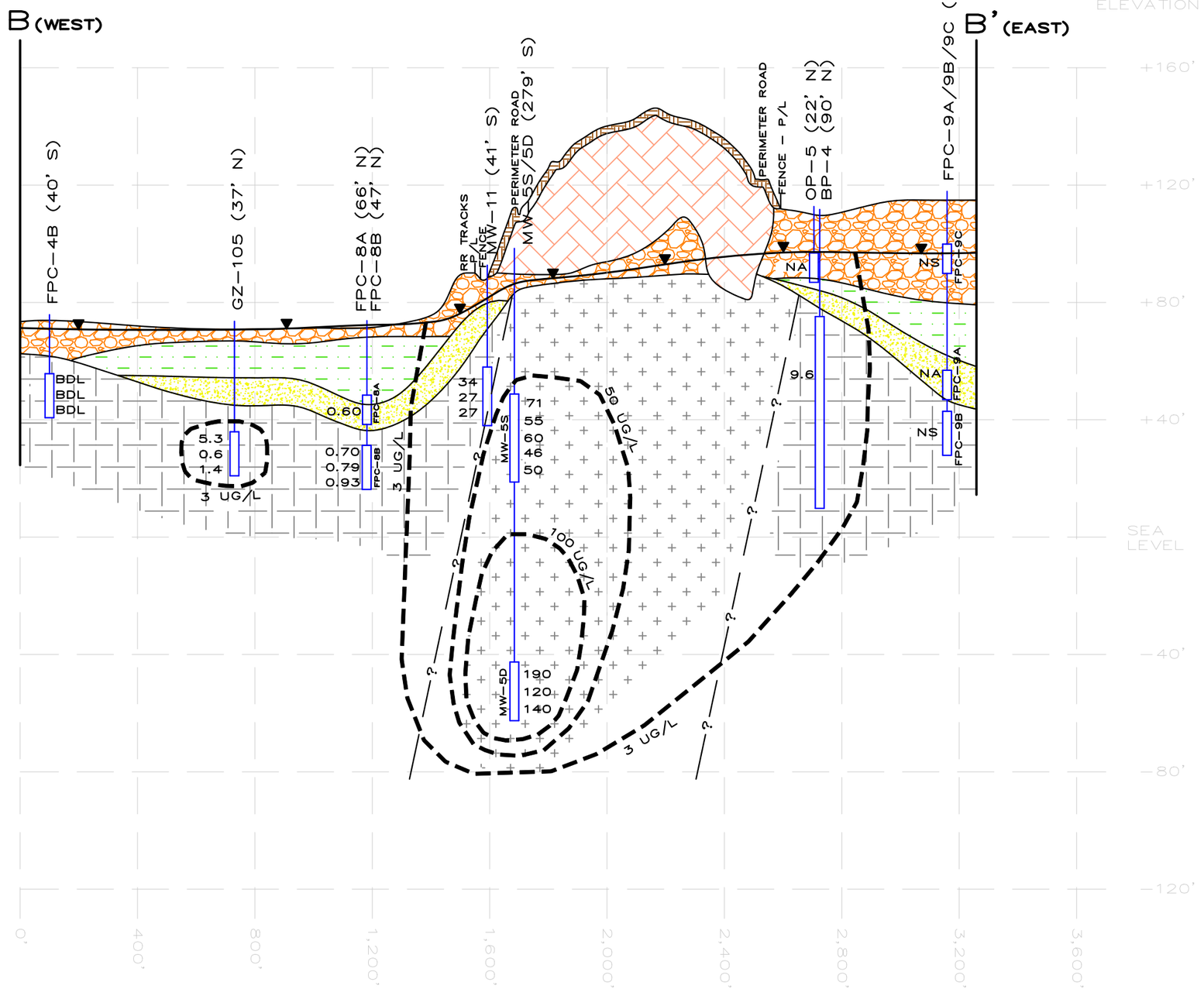
10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

10 ISOCONCENTRATION CONTOUR



NS NOT SAMPED
NA NOT ANALYZED
BDL BELOW DETECTION LIMIT (< 0.25 UG/L)

HORIZONTAL SCALE: 1" = 400'

0 200 400 800 1200

VERTICAL SCALE: 1" = 40'

0 20 40 80 120

FIGURE 16

AUGUST 2013
VERTICAL DISTRIBUTION OF 1,4–DIOXANE IN GROUNDWATER
GEOLOGICAL CROSS SECTION B–B'

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Summit Environmental Consultants
A CES, Inc. Company

DATE: JAN. 2014	DRAWN BY: SBM	SCALE: AS NOTED
JOB NUMBER: 12–3173	CHECKED BY: MAD	CADD: 12–3173–CROSS

TABLES

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA
2013 ANNUAL SUMMARY REPORT
COAKLEY LANDFILL OU-1 AND OU-2
NORTH HAMPTON, NEW HAMPSHIRE

MONITORING WELL IDENTIFICATION	Ref. Pt Elev. (FT. NGVD)	Screened Interval FT.	Apr-93 GW. EL. FT.	Dec-96 GW. EL. FT.	Apr-97 GW. EL. FT.	Sep-97 GW. EL. FT.	Dec-97 GW. EL. FT.	Jun-98 GW. EL. FT.	Aug-98 GW. EL. FT.	Apr-99 GW. EL. FT.	Aug-99 GW. EL. FT.	Nov-99 GW. EL. FT.	Apr-00 GW. EL. FT.	Aug-00 GW. EL. FT.	Nov-00 GW. EL. FT.	Apr-01 GW. EL. FT.	Aug-01 GW. EL. FT.	Jun-02 GW. EL. FT.	Aug-02 GW. EL. FT.	Aug-03 GW. EL. FT.	Aug-04 GW. EL. FT.	Aug-05 GW. EL. FT.	Aug-06 GW. EL. FT.	Nov-07 GW. EL. FT.	Aug-08 GW. EL. FT.	Aug-09 GW. EL. FT.	Aug-10 GW. EL. FT.	Aug-11 GW. EL. FT.	Aug-12 GW. EL. FT.	Aug-13 GW. EL. FT.
BP-4	111.70	33.6-99.0		98.94	97.83	96.07	95.84	99.55	97.03	97.04	95.26	95.93	97.1	96.93	96.03	99.37	96.29	97.27	96.26	96.51	96.89	96.34	97.71	95.72	97.52	99.00	96.55	96.75	96.48	97.39
MW-2	94.54	10-20															86.75	89.00				NM	NM	88.61	88.95	88.40	87.88	88.79	86.85	87.69
MW-4	129.12	28-38	101.52							98.41	95.94	96.78	97.92	97.61	96.65	100.33	96.88	98.01	96.99	97.07	97.35	96.71	98.12	96.17	97.98	98.43	96.93	97.20	96.90	97.75
MW-5S (Note 5)	101.96	48-78	93.69							91.89	87.81	90.96	91.5	91.11	91.24	92.24	89.33	91.46	88.78	88.71	90.89	88.54	91.42	89.54	91.47	90.99	89.70	89.89	89.02	90.06
MW-5D (Note 5)	99.72	139-159								91.22	87.17	90.1	90.74	89.92	90.31	91.72	88.60	90.60	88.12	89.22	89.96	88.02	89.82	88.61	90.42	90.35	88.96	89.11	88.25	89.52
MW-6	101.15	25-184	93.4	93.84	93.44	90.04	92.25	93.44	91.33	92.55	88.03	91.98	92.52	92.20	92.32	93.23	89.79	92.50	89.16	90.09	92.13	89.01	92.46	90.52	92.42	91.93	90.58	90.73	89.66	90.40
MW-8 (Note 5)	85.02	44-65		81.1	79.46	78.48	78.07	78.71	76.66	78.32	75.04	77.63	78.09	77.70	78.22	78.33	76.02	77.93	75.64	76.32	77.58	75.66	77.90	76.61	78.20	77.61	76.35	77.26	75.70	77.42
MW-9	82.62	5-10		77.97	78.03	75.87	76.06	77.16	74.47	75.82	73.42	75.46	76.09	76.00	76.86	76.88	74.10	75.74	73.81	73.28	76.13	73.94	75.71	75.80	76.88	75.35	74.64	77.15	74.15	75.22
MW-10	80.60	5-10		74.56	74.67	73.96	74.07	74.68	73.17	74.51	72.78	74.57	74.63	74.83	75.06	75.22	73.93	74.91	73.45	74.20	74.93	73.99	74.71	74.95	74.86	74.50	74.21	75.46	74.22	74.50
MW-11	92.70	32-52		87.21	85.36	83.56	83.81	83.69	81.77	83.42	79.17	82.42	82.8	82.35	82.40	83.09	80.59	82.67	80.11	81.24	82.26	79.85	82.89	81.07	82.99	82.58	81.08	81.54	80.36	82.10
OP-2 (Note 5)	100.00	7-12	91.44	95.86	95.4				92.85	93.62	91.03	92.39	93.37	93.27	92.75	87.25	92.00	93.49	91.85	92.26	93.05	91.94	93.80	92.28	94.04	93.98	92.50	93.17	92.52	77.42
OP-5	112.68	13-23	94.92	99.26	98.28	96.59	96.41	100.41	100.41	97.39	95.84	96.41	97.58	97.33	96.40	107.29	97.54	97.72	96.82	96.98	97.31	96.78	98.03	96.04	97.81	98.28	96.91	97.22	96.86	97.72
AE-1A	127.00	54-64								97.95	95.55	96.21	97.37	97.23	96.34	99.67	96.54	97.54	96.53	96.67	97.05	97.35	98.10	95.89	97.74	98.19	96.74	97.00	96.63	97.53
AE-1B	126.80	75-85								97.91	95.51	96.13	97.35	97.19	96.31	99.65	96.43	97.51	96.51	96.65	97.09	96.49	98.09	95.87	97.73	97.98	96.55	96.93	96.61	97.51
AE-2A	79.60	10-20									72.49	75.74	75.71	75.67	76.03	75.69	73.58	75.66	72.98	73.75	75.19	73.18	75.70	74.69	75.81	75.29	73.76	75.00	73.52	74.70
AE-2B	79.50	40-50									72.59	75.79	75.79	75.44	76.04	75.78	73.49	75.65	73.16	74.42	75.33	73.60	75.61	74.22	75.94	76.02	74.35	74.26	74.01	75.30
AE-3A	86.10	??-17.5								77.47	76.64	77.74	77.56	77.99	77.92	77.80	77.05	77.70	76.86	76.30	77.90	77.14	78.02	77.90	77.98	78.68	77.30	78.30	77.04	77.50
AE-3B	87.30	28-40								78.55	77.19	78.38	78.35	78.47	78.61	78.64	78.30	78.49	77.47	77.90	78.58	76.86	78.66	78.47	78.50	78.32	77.76	78.84	77.50	77.84
AE-4A	77.20	5-15																			73.47	70.75	73.75	72.91	73.10	73.20	71.49	73.10	70.80	72.29
AE-4B	77.50	34-44																			73.42	70.51	73.30	72.28	73.61	73.01	71.10	72.18	70.58	72.12
FPC-2A	78.40	6-16											75.69	76.70	76.98	NR		76.66	78.40	76.24	76.31	75.66	76.32	75.90	76.30	76.12	75.62	75.98	75.41	75.89
FPC-2B	77.98	22.5-37.5											77.47	77.30	77.71	77.78		77.38	76.37	76.81	77.28	76.45	77.30	76.90	77.46	77.26	76.45	74.94	76.51	75.22
FPC-4B	75.83	18-33	71.83																	69.96	71.58	68.21	71.63	70.95	71.81	71.24	69.80	71.01	69.51	70.43
FPC-5A	74.30	54-64	75.01	74.44	74.44	73.94		74.44	73.29	74.14	72.2	73.93	73.9	73.98	74.18	74.14	73.02	73.10	73.03	73.10	74.30	72.18	73.50	73.50	73.73	73.37	72.73	72.91	72.05	72.11
FPC-5B	74.90	95-110	74.85	74.81	74.81	73.91	74.21	74.81	73.3	74.6	72.38	74.48	74.25	74.60	74.77	74.70	73.43	70.96	73.15	74.23	74.40	73.19	74.66	74.50	74.85	74.46	73.74	74.33	72.95	73.64
FPC-6A (Note 6)	79.20	3.5-4.5	73.23							72.74		72.84	72.85	72.85	73.11	73.01		72.65			75.03	72.91	75.03	74.58	75.22	74.42	70.88	71.87	70.77	71.22
FPC-6B	77.10	13-28	73.20							72.81	69.86	72.94		72.09	73.21	73.14	70.88	72.33	70.30	71.94	70.32	68.37	70.47	70.19	72.93	72.35	71.26	72.35	71.06	71.60
FPC-7A	82.08	16.7-21.7	81.63							81.36										80.12	80.99	80.03	81.46	81.30	81.49	81.16	80.39	81.10	80.20	80.73
FPC-7B	82.33	29.8-44.8	80.53							80.93										79.82	80.72	79.69	81.02	79.43	81.20	80.87	80.14	80.82	79.95	80.42
FPC-8A	73.80	23-33	73.85	73.67	73.65	71.49	73.15	73.49	71.01	73.04	69.23	72.93	72.93	72.88	73.34	73.20	71.06	72.99	70.36	71.26	72.86	70.63	73.01	72.20	73.09	72.73	71.62	72.46	71.31	72.60
FPC-8B	73.60	40-55	72.83	73.52	73.49	71.44	73.04	73.33	70.84	72.88	69.14	72.77	72.78	72.63	73.18	72.99	70.93	72.79	70.07	71.22	72.69	70.58	72.83	72.03	72.00	72.68	71.10	72.28	71.16	72.40
FPC-9A	117.57	58-68	99.87							97.32	95.02	95.72	96.92	96.75	95.90	99.22	96.25	97.05	96.02	96.27	96.40	95.83	97.59	95.48	97.44	97.90	96.37	96.58	96.18	97.23
FPC-9B	117.87	72-87	99.99							97.81	95.07	95.79	96.98	96.83	95.99	99.28	96.15	97.08	96.11	96.37	NM	NM	NM	95.14	97.41	97.93	96.42	96.96	96.21	97.22
FPC-9C	117.75	15-25	100.45							97.87	95.77	96.33		97.25	96.50	99.62	NM	97.52		96.75	NM	NM	NM	96.08	97.62	98.10	96.75	96.65	96.78	97.69
FPC-11A	117.95	47-52	100.4							97.7										96.65	97.01	96.51	97.71	95.81	97.58	97.95	96.50	96.68	96.38	97.45
FPC-11B	117.90	58-73	96.5							97.74										96.70	96.90	96.34	97.69	95.54	97.57	97.89	96.56	97.10	96.37	97.30
FPC-11C	118.04	18-33																											96.58	97.44
GZ-105	73.60	35-50	66.42							70.86	67.46	70.77	70.78	69.82	71.16	71.02	69.31	70.83	68.45	69.71	71.09	69.28	70.91	70.68	71.05	70.78	69.83	70.71	69.47	70.70
GZ-123	87.49	9.5-16.5																						76.91	77.90	78.28	77.05	77.42	77.01	77.24
GZ-125	88.77	57-200																						80.35	81.73	81.87	80.36	80.32	80.07	80.79

NOTES:

1. Shaded data denotes a bedrock monitoring well.
2. A blank indicates data was not collected.
3. GW.EL. indicates groundwater elevation and FT. indicates measurements were in feet.
4. Well Screened intervals from surface grade.
5. Summit determined that Reference Point Elevations for MW-5S, MW-5D, MW-8 and OP-2 were incorrect for data collected since 1999. Correct measuring point elevations were identified on an as built survey plan prepared by Richard D. Bartlett and Associates, Inc. dated September 1998. Surveyed "top of cap" elevations for MW-5S, MW-5D and MW-8 were adjusted to top of PVC using field measurements (significant settling is not likely at these wells as they are 2-inch diameter wells install in 6 inch diamter boreholes through 6-inch diameter metal casings. A PVC casing elevation was listed for OP-2. Groundwater elevation data since April 1999 adjustments are as follows: MW-5S (+3.54 ft), MW-5D (+1.33 ft), MW-8 (-0.28 ft) and OP-2 (+1.51 ft).
6. A replacement well (point) for FPC-6A was installed in August 2003, due to insufficient water for sampling for extended periods of time. However, the reference point elevation was not updated at that time. Therefore, groundwater elevations presented in previous monitoring reports for FPC-6A since August 2003 were incorrect. Summit surveyed the FPC-6A reference point elevation in December 2013 relative to the FPC-6B reference point elevation and determined that the measure point elevation for FPC-6A is 79.20 feet (not 77.00 feet, as identifed in previous reports). Groundwater elevations at FPC-6A since August 2004 were corrected by +2.20 feet. In addition, the FPC-6A screened interval was updated based on well depth (9.97 feet), stickup (5.54 feet), and an assumed 1 foot screen interval.

TABLE 2

Summary of OU-1 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4-DUP	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
DATE SAMPLED	AGQS	ICL	30-Aug-05	30-Aug-06	16-Nov-07	13-Aug-08	20-Aug-09	17-Aug-10	18-Aug-11	28-Aug-12	13-Aug-13	13-Aug-13	29-Aug-06	9-Nov-07	13-Aug-08	20-Aug-09	19-Aug-10	19-Aug-11	27-Aug-12
VOLATILE ORGANIC COMPOUNDS (ug/l)																			
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	**5**	4	3	4	4	3
Chlorobenzene	100	100	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	3	2	2	3	2	BDL
Chloroethane			BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	13	9	8	7	7	6
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	3	2	3	3	3	2
1,1 Dichloroethane	81		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	2	1	1	2	2	1
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	52	45	37	40	32	27
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	60	40	40	40	40	30
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	6	6	2.5	4.6	4.8	NA	NA	NA	70	90	70	61
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl-t-butyl Ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tertiary-butyl Alcohol (TBA)	40		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																			
Aluminum			BDL	34,000	28,000	34,000	BDL	140	300	140	690	850	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**130**	**43**	**58**	**69**	**70**	**64**	**81**	**80**	**53**	**53**	**10**	**26**	**26**	**18**	**16**	**18**	**17**
Barium	2,000		530	190	200	250	73	71	67	52	70	70	190	210	190	180	180	180	180
Beryllium	4	4	BDL	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			120,000	66,000	88,000	80,000	65,000	66,000	63,000	60,000	55,000	56,000	54,000	45,000	43,000	42,000	34,000	33,000	34,000
Chromium	100	50	**600**	**150**	**140**	**190**	2	BDL	1	BDL	3	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			130	34	53	53	5	4	4	3	4	4	8	11	11	7	4	4	4
Copper	1,300		170	38	71	78	2	2	3	2	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			17,000	27,000	24,000	50,000	23,000	21,000	22,000	18,000	NA	NA	19,000	23,000	21,000	14,000	12,000	14,000	13,000
Dissolved Manganese			1,500	1,300	1,300	2,600	1,200	1,000	1,100	1,000	NA	NA	3,700	4,200	4,300	3,200	2,800	3,000	3,600
Iron (Total)			380,000	110,000	160,000	150,000	24,000	22,000	24,000	20,000	21,000	21,000	17,000	25,000	23,000	16,000	13,000	14,000	13,000
Lead	15	15	**100**	**23**	**37**	**43**	BDL	BDL	BDL	BDL	2	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			84,000	38,000	39,000	47,000	24,000	19,000	19,000	16,000	15,000	15,000	30,000	24,000	22,000	26,000	22,000	20,000	19,000
Manganese (Total)	840	300	**13,000**	**4,500**	**5,900**	**5,800**	**1,200**	**1,100**	**1,300**	**1,200**	**970**	**960**	**3,700**	**4,400**	**3,900**	**3,400**	**2,900**	**2,900**	**3,600**
Mercury	2		BDL	BDL	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	**410**	99	**130**	**150**	9	8	12	6	8	9	17	22	19	14	11	10	10
Potassium			60,000	39,000	44,000	49,000	38,000	30,000	29,000	25,000	24,000	25,000	27,000	22,000	22,000	25,000	22,000	20,000	20,000
Selenium	50		BDL	BDL	BDL	BDL	BDL	4	BDL	BDL	2	2	BDL	BDL	BDL	1	8	BDL	5
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL
Sodium			52,000	56,000	39,000	43,000	34,000	31,000	30,000	20,000	20,000	20,000	76,000	110,000	87,000	94,000	99,000	85,000	89,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	**350**	63	82	91	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			540	91	190	210	6	BDL	BDL	8	8	9	6	14	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS																			
Temperature (degress Celcius)			19	17	13	18	16	15	15	16	NA	NA	12	10	13	12	12	13	12
pH (standard units)			6.6	6.5	6.6	6.2	6.7	6.5	6.4	6.5	NA	NA	6.6	6.8	6.8	7.0	6.5	6.8	7.0
Conductivity (us/cm)			544	1024	1029	1025	1080	1037	552	784	NA	NA	884	1203	1090	1095	1072	687	826
Dissolved Oxygen (mg/l)			3.4	3.7	1.7	3.2	1.3	1.6	2.5	2.2	NA	NA	3.3	0.5	0.7	0.2	0.3	0.2	0.2
Turbidity (NTU)			1072		11	6000	35	15	13	15	NA	NA	11	1	79	9	4	3	1
Oxidation Reduction Potential (mV)			-43	-44	154	22	-51	-63	-78	-64	NA	NA	-82	-128	-91	-112	-75	-131	-118

NOTES: SEE LAST PAGE

TABLE 2

Summary of OU-1 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-6	MW-6	MW-6	MW-6	MW-6-150BGS	MW-6-150BGS	MW-6-150BGS	MW-6-150BGS
DATE SAMPLED	AGQS	ICL	29-Aug-06	15-Nov-07	13-Aug-08	20-Aug-09	19-Aug-10	18-Aug-11	27-Aug-12	29-Aug-06	12-Nov-07	12-Aug-08	19-Aug-09	8-Feb-11	15-Aug-11	27-Aug-12	16-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	2	3	2	2	2	2	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	4	5	4	3	4	3	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			24	33	38	32	31	38	41	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	2	2	2	2	2	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		89	130	120	100	99	100	110	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	110	110	110	90	90	110	90	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	140	150	140	140	NA	NA	NA	BDL	BDL	< 1	< 0.25	< 0.25
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl-t-butyl Ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	BDL	BDL	BDL	BDL	BDL	BDL
Tertiary-butyl Alcohol (TBA)	40		NA	60	50	40	40	50	40	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																	
Aluminum			8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	5	**11**	5	6	**10**	**10**	**11**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Barium	2,000		120	130	110	120	110	130	130	BDL	BDL	BDL	BDL	7	5	6	2
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**6**	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			48,000	30,000	31,000	32,000	32,000	29,000	35,000	15,000	13,000	11,000	11,000	15,000	15,000	16,000	15,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	1	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	1	BDL	1	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	1	2	2	9	12	BDL
Dissolved Iron			NA	NA	NA	NA	NA	NA	NA	900	3,900	250	340	2,800	2,500	1,000	NA
Dissolved Manganese			NA	NA	NA	NA	NA	NA	NA	540	820	470	510	1,900	1,800	2,400	NA
Iron (Total)			17,000	15	12,000	15,000	13,000	13,000	15,000	1,200	5,800	1,800	8,000	4,900	17,000	16,000	2,600
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	1	1	BDL
Magnesium			44,000	27,000	26,000	32,000	28,000	25,000	28,000	6,200	5,200	4,000	4,500	5,200	5,700	5,700	5,700
Manganese (Total)	840	300	**890**	**860**	**780**	**770**	**730**	**780**	**960**	**540**	**740**	**520**	**490**	**1,900**	**1,800**	**2,500**	**990**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	14	11	12	10	9	9	9	BDL	3	1	2	2	2	4	2
Potassium			30,000	22,000	23,000	25,000	22,000	21,000	22,000	1,800	1,700	1,500	1,600	1,600	1,700	1,900	1,600
Selenium	50		4	BDL	2	4	18	BDL	13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			140,000	170,000	160,000	140,000	140,000	130,000	130,000	10,000	12,000	10,000	11,000	11,000	12,000	12,000	12,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	1	1	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			7	BDL	BDL	BDL	BDL	BDL	BDL	13	9	6	8	14	21	26	16
FIELD PARAMETERS																	
Temperature (degress Celcius)			11	11	12	13	12	13	12	12	10	11	12	6	15	14	13
pH (standard units)			7.2	7.1	7.1	7.0	7.2	6.8	7.3	6.9	5.8	6.0	6.0	6.0	6.3	6.8	5.8
Conductivity (us/cm)			1146	1570	1451	12	1510	1367	1431	138	196	148	152	238	244	232	235
Dissolved Oxygen (mg/l)			1.3	0.5	0.2	9.7	0.1	0.3	0.2	1.7	1.0	0.6	5.8	1.5	2.3	2.2	0.8
Turbidity (NTU)			10	3	103	11	1	2	9	8	17	315	41	19	109	69	28
Oxidation Reduction Potential (mV)			-171	1	-127	-141	-166	-161	-146	-76	95	120	83	34	302	-73	120

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TABLE 2

Summary of OU-1 Groundwater Analytical Results
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Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
DATE SAMPLED	AGQS	ICL	30-Aug-06	13-Nov-07	13-Aug-08	20-Aug-09	17-Aug-10	18-Aug-11	27-Aug-12	25-Aug-05	29-Aug-06	13-Nov-07	13-Aug-08	18-Aug-09	17-Aug-10	18-Aug-11	28-Aug-12	15-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																		
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	**5**	3	4	4	**6**	**6**	**6**	**5**	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	4	3	4	3	7	12	9	79	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane			20	19	21	18	20	27	18	5	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	2	2	2	2	3	2	19	NA	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	2	2	2	2	2	2	2	NA	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		114	130	110	99	98	88	73	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	**239**	**180**	**180**	**180**	**160**	140	100	84	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		3	2	1	1	1	1	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	BDL	BDL	BDL	1	1	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			3	3	2	1	1	1	1	4	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	310	230	200	210	NA	NA	NA	NA	NA	16	14	30	6.1
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-t-butyl Ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary-butyl Alcohol (TBA)	40		NA	70	70	60	50	50	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																		
Aluminum			26	60	60	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	190
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	7	**10**	8	8	**13**	**16**	**18**	**280**	**81**	**56**	**57**	**78**	**120**	**130**	**140**	**46**
Barium	2,000		170	170	190	210	240	340	340	92	66	41	39	58	120	110	140	61
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			55,000	31,000	36,000	42,000	41,000	38,000	44,000	86,000	55,000	27,000	35,000	39,000	68,000	58,000	82,000	40,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL	BDL	1	BDL	1	BDL
Cobalt			BDL	3	6	3	2	5	5	4	BDL	12	7	3	2	2	11	9
Copper	1,300		BDL	1	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL	BDL	1	BDL	BDL	2
Dissolved Iron			NA	NA	NA	NA	NA	NA	NA	56,000	57,000	17,000	35,000	45,000	48,000	32,000	44,000	NA
Dissolved Manganese			NA	NA	NA	NA	NA	NA	NA	820	2,200	1,400	3,300	2,300	1,300	940	1,300	NA
Iron (Total)			5,900	4,300	6,500	5,600	5,200	9,900	10,000	51,000	65,000	16,000	34,000	37,000	55,000	37,000	46,000	23,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1
Magnesium			68,000	36,000	40,000	50,000	45,000	42,000	44,000	45,000	22,000	12,000	11,000	12,000	24,000	23,000	27,000	11,000
Manganese (Total)	840	300	**2,500**	**1,600**	**1,900**	**2,000**	**2,100**	**1,700**	**2,200**	**710**	**2,400**	**1,200**	**3,500**	**2,100**	**1,400**	**880**	**1,400**	**1,300**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	18	19	26	22	17	19	20	14	5	16	7	4	5	5	14	8
Potassium			17,000	12,000	14,000	14,000	16,000	18,000	20,000	25,000	15,000	6,800	7,300	9,700	19,000	15,000	20,000	7,400
Selenium	50		5	BDL	3	5	4	BDL	12	6	BDL	BDL	BDL	BDL	6	BDL	5	2
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			180,000	240,000	210,000	210,000	190,000	170,000	180,000	98,000	35,000	38,000	28,000	19,000	60,000	56,000	71,000	18,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	1	2	2	1	2	BDL	7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			6	18	BDL	BDL	BDL	BDL	BDL	4	3	BDL	BDL	BDL	BDL	BDL	BDL	7
FIELD PARAMETERS																		
Temperature (degress Celcius)			13	10	14	14	16	13	15	15	15	11	16	15	16	15	16	18
pH (standard units)			6.7	7.2	7.3	7.9	6.8	5.6	6.9	6.5	6.4	6.0	6.1	6.5	5.9	6.1	6.3	6.2
Conductivity (us/cm)			1339	1670	1570	1660	1630	1555	1601	1273	644.6	491	473	578	1154	738	1222	553
Dissolved Oxygen (mg/l)			2.1	1.2	1.0	0.2	0.3	0.5	0.3	0.8	622 *	0.7	0.4	0.4	0.4	0.4	0.8	2.0
Turbidity (NTU)			8	14	100	0	2	11	1	29	13	2	82	3	2	1	2	15
Oxidation Reduction Potential (mV)			-55	45	-151	-163	-102	-129	-171	-102	-55	38	-19	-59	-4	-66	-156	-19

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TABLE 2

Summary of OU-1 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11
DATE SAMPLED	AGQS	ICL	26-Aug-05	29-Aug-06	13-Nov-07	13-Aug-08	18-Aug-09	18-Aug-10	19-Aug-11	28-Aug-12	15-Aug-13	29-Aug-06	8-Nov-07	13-Aug-08	19-Aug-09	18-Aug-10	19-Aug-11	29-Aug-12
VOLATILE ORGANIC COMPOUNDS (ug/l)																		
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	NA	NA	**5**	**8**	**5**	4	3	2	2
Chlorobenzene	100	100	BDL	NA	NA	NA	NA	NA	NA	NA	NA	2	3	2	2	BDL	BDL	BDL
Chloroethane			BDL	NA	NA	NA	NA	NA	NA	NA	NA	20	32	19	19	9	8	6
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	2	1	1	1	1	BDL
1,1 Dichloroethane	81		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	4	2	2	1	2	BDL
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	NA	NA	47	75	37	34	24	18	13
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	NA	NA	50	60	30	30	20	20	10
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	2	BDL	1	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	NA	NA	8	12	4	6	4	3	2
1,4-Dioxane	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	45	40	56
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl-t-butyl Ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tertiary-butyl Alcohol (TBA)	40		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																		
Aluminum			BDL	19	BDL	70	50	BDL	BDL	BDL	130	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**24**	**11**	**12**	9	**17**	**19**	**12**	**19**	**15**	**10**	**15**	**13**	**11**	**11**	8	9
Barium	2,000		89	55	64	19	46	71	54	67	45	96	95	89	83	74	73	68
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			81,000	53,000	52,000	17,000	45,000	64,000	43,000	70,000	42,000	31,000	26,000	22,000	24,000	21,000	20,000	22,000
Chromium	100	50	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			5	7	6	2	5	3	2	2	BDL	BDL	3	6	2	2	2	2
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Total)			46,000	27,000	28,000	6,600	29,000	35,000	20,000	30,000	25,000	17,000	15,000	19,000	15,000	13,000	12,000	12,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			23,000	14,000	15,000	3,900	11,000	18,000	13,000	19,000	11,000	25,000	19,000	19,000	21,000	17,000	17,000	16,000
Manganese (Total)	840	300	**3,500**	**3,200**	**2,800**	**760**	**2,200**	**2,700**	**1,600**	**3,000**	**1,700**	**450**	**410**	**440**	**390**	**340**	**350**	**410**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	14	7	8	3	5	6	4	5	2	8	12	18	8	6	5	5
Potassium			20,000	9,400	12,000	5,200	8,600	13,000	10,000	12,000	8,500	10,000	9,300	8,800	9,800	8,100	8,500	8,500
Selenium	50		3	BDL	BDL	BDL	BDL	5	BDL	3	2	BDL	BDL	BDL	BDL	4	BDL	2
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			110,000	35,000	90,000	14,000	31,000	72,000	50,000	71,000	32,000	110,000	140,000	110,000	110,000	100,000	80,000	76,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			7	16	19	5	6	6	BDL	BDL	BDL	6	32	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS																		
Temperature (degress Celcius)			15	16	10	17	17	16	15	16	17	12	10	12	12	14	14	12
pH (standard units)			6.7	6.5	6.3	6.1	6.5	6.1	6.3	6.5	6.3	6.9	6.7	6.9	7.0	6.5	5.4	6.9
Conductivity (us/cm)			1033	464.4	960	220	564	897	483	857	587	800.3	1420	830	858	751	483	714
Dissolved Oxygen (mg/l)			2.3	735 *	0.5	0.5	0.3	0.4	0.3	0.3	1.9	0.4	0.2	0.6	0.6	0.3	0.2	0.2
Turbidity (NTU)			12	10	2	19	3	2	4	1	18	24	2	35	9	3	4	1
Oxidation Reduction Potential (mV)			-106	-65	37	9	-69	-8	-65	-160	-68	-204	-30	-102	-104	-67	-99	-195

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TABLE 2

Summary of OU-1 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	OP-2	OP-2	OP-2	OP-2	OP-2	OP-2	OP-2	OP-2	OP-2	OP-5	OP-5	OP-5	OP-5	OP-5	OP-5	OP-5	OP-5	OP-5
DATE SAMPLED	AGQS	ICL	26-Aug-05	29-Aug-06	9-Nov-07	13-Aug-08	18-Aug-09	18-Aug-10	17-Aug-11	27-Aug-12	13-Aug-13	26-Aug-05	30-Aug-06	9-Nov-07	13-Aug-08	19-Aug-09	18-Aug-10	17-Aug-11	28-Aug-12	12-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																				
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	2	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane			13	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		3	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	NA	1	1	1	1.2	NA	NA	NA	NA	NA	< 1	< 1	NA	NA
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-t-butyl Ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary-butyl Alcohol (TBA)	40		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																				
Aluminum			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1500	BDL	BDL	BDL	BDL	BDL	70	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**25**	**200**	**190**	**170**	**200**	**220**	**210**	**220**	**200**	**25**	**27**	**33**	**17**	**13**	**19**	**27**	**30**	**30**
Barium	2,000		21	19	19	20	17	16	15	15	13	25	13	23	15	13	15	17	18	19
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			49,000	40,000	37,000	40,000	42,000	39,000	36,000	36,000	28,000	15,000	15,000	14,000	8,800	7,600	9,200	10,000	12,000	12,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			4	BDL	5	4	4	5	5	4	4	20	14	23	19	15	17	17	18	12
Copper	1,300		BDL	BDL	BDL	BDL	14	BDL	BDL	BDL	BDL	6	BDL	BDL	1	BDL	BDL	1	BDL	BDL
Dissolved Iron			47,000	49,000	50,000	61,000	45,000	37,000	43,000	44,000	NA	15,000	12,000	21,000	9,600	8,100	11,000	14,000	15,000	NA
Dissolved Manganese			450	480	650	550	620	640	960	1,100	NA	3,500	2,600	4,000	2,200	2,000	2,300	2,800	3,200	NA
Iron (Total)			47,000	44,000	48,000	57,000	48,000	44,000	45,000	39,000	37,000	24,000	12,000	19,000	10,000	8,100	11,000	13,000	17,000	18,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			130,000	12,000	9,300	10,000	11,000	9,400	7,700	7,000	5,000	4,500	3,600	3,200	2,200	2,300	2,300	2,600	2,500	2,800
Manganese (Total)	840	300	**390**	**470**	**620**	**580**	**630**	**760**	**1,000**	**1,000**	**980**	**3,800**	**2,500**	**3,800**	**2,300**	**1,800**	**2,200**	**2,700**	**3,700**	**3,100**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	11	7	7	6	7	9	7	34	6	31	22	33	30	25	27	24	26	17
Potassium			28,000	23,000	17,000	21,000	21,000	16,000	14,000	14,000	9,000	2,800	2,800	2,300	1,900	1,900	1,800	1,900	2,200	2,000
Selenium	50		BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			17,000	17,000	12,000	16,000	18,000	15,000	13,000	13,000	10,000	9,900	8,600	10,000	9,000	9,000	8,000	9,000	10,000	8,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	4	BDL	BDL	1	1	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			2	5	BDL	BDL	16	BDL	BDL	13	BDL	7	7	BDL	BDL	7	BDL	BDL	BDL	BDL
FIELD PARAMETERS																				
Temperature (degress Celcius)			17	16	10	16	15	14	14	15	15	12	13	9	11	11	11	10	12	12
pH (standard units)			6.3	6.6	6.2	6.1	6.6	6.0	4.4	6.4	6.2	5.9	5.8	5.6	5.6	5.9	5.5	5.4	6.0	5.8
Conductivity (us/cm)			671	480.9	675	669	707	627	539	581	586	196	150.6	253	169	150	193	182	222	246
Dissolved Oxygen (mg/l)			2.9	8.8	0.7	1.1	0.2	0.3	0.4	0.3	0.7	2.2	1.2	0.4	0.2	0.7	0.4	0.2	0.2	1.3
Turbidity (NTU)			16	14	2	16	1	3	2	3	4	23	1	1	100	2	2	2	1	2
Oxidation Reduction Potential (mV)			-54	-161	-11	-27	-54	7	-50	-144	-60	12	27	16	81	69	95	30	4	-68

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TABLE 2

Summary of OU-1 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	BP-4	BP-4	BP-4	BP-4	BP-4	BP-4-49BGS	BP-4-49BGS	BP-4-49BGS	BP-4-49BGS
DATE SAMPLED	AGQS	ICL	26-Aug-05	30-Aug-06	9-Nov-07	13-Aug-08	19-Aug-09	8-Feb-11	15-Aug-11	28-Aug-12	12-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)											
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane			16	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		BDL	NA	NA	NA	NA	9	10	13	9.6
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-t-butyl Ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary-butyl Alcohol (TBA)	40		NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)											
Aluminum			77	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**11**	**26**	**30**	**23**	**22**	**34**	**33**	**34**	**32**
Barium	2,000		63	53	55	43	39	47	48	47	42
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			62,000	69,000	51,000	48,000	50,000	49,000	44,000	55,000	40,000
Chromium	100	50	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			80	BDL	2	3	BDL	7	2	1	4
Copper	1,300		7	BDL	BDL	BDL	BDL	BDL	13	BDL	BDL
Dissolved Iron			NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese			NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Total)			69,000	36,000	31,000	30,000	26,000	31,000	29,000	33,000	35,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	4	10	BDL	BDL
Magnesium			31,000	3,800	21,000	22,000	26,000	19,000	18,000	21,000	15,000
Manganese (Total)	840	300	**1,700**	**1,300**	**1,200**	**1,100**	94	**1,200**	**1,100**	**1,200**	**960**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	**150**	9	10	13	8	15	9	8	11
Potassium			23,000	30,000	21,000	21,000	23,000	17,000	16,000	17,000	14,000
Selenium	50		BDL	BDL	BDL	1	BDL	BDL	BDL	2	1
Silver	100		BDL	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			110,000	9,200	140,000	110,000	89,000	64,000	59,000	66,000	55,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			5	6	BDL	BDL	11	6	44	BDL	BDL
FIELD PARAMETERS											
Temperature (degress Celcius)			11	12	9	13	14	8	14	16	13
pH (standard units)			6.9	6.6	6.9	7.0	7.1	6.6	6.9	7.2	7.1
Conductivity (us/cm)			1021	964.8	1204	1106	1100	1056	1117	989	984
Dissolved Oxygen (mg/l)			1.9	2.1	0.4	1.2	2.3	1.0	3.8	1.2	1.8
Turbidity (NTU)			35	3	2	27	8	1	11	5	9
Oxidation Reduction Potential (mV)			-108	-92	-85	-107	-153	-28	-138	-174	-183

NOTES:

1. NA = Sample was not analyzed/measured for indicated parameter
   BDL = Below Detection Limit
   < 0.25 or < 1 = 1,4-dioxane analyzed using low-level methodology and reported below the detection limited indicated
2. NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standard (Env-Or-600, Table 600-1)
   EPA ICL = US Environmental Protection Agency Interim Cleanup Level (1990/1994 Record of Decision, 2007 Explanation of Significant Differences)
3. **Bolded** denote concentration at or exceeding EPA Interim Cleanup Level (ICL)
4. Shaded values denote concentration at or exceeding NHDES Ambient Groundwater Quality Standard
5. Volatile organic compound and metals results are in micrograms per liter (ug/l).
6. Field Parameter Units: us/cm = microsiemens per centimeter, mg/l = milligram per liter
   NTU = nephelometric turbidity unit, mV = millivolt

TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-2A	FPC-2A	FPC-2A	FPC-2A	FPC-2A	FPC-2A	FPC-2A	FPC-2B	FPC-2B	FPC-2B	FPC-2B	FPC-2B	FPC-2B	FPC-2B
DATE SAMPLED	AGQS	ICL	29-Aug-06	16-Nov-07	12-Aug-08	17-Aug-09	17-Aug-10	16-Aug-11	29-Aug-12	29-Aug-06	16-Nov-07	12-Aug-08	17-Aug-09	17-Aug-10	16-Aug-11	29-Aug-12
VOLATILE ORGANIC COMPOUNDS (ug/l)																
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	BDL	BDL	NA	NA	NA	NA	NA	BDL	BDL
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																
Aluminum			BDL	60	BDL	BDL	BDL	BDL	BDL	27	BDL	14	360	90	100	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL
Arsenic	10	10	BDL	8	3	2	2	2	2	BDL	2	3	3	3	3	2
Barium	2,000		12	18	13	14	13	13	13	12	12	12	17	12	11	9
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			22,000	18,000	16,000	19,000	15,000	16,000	18,000	11,000	7,800	6,800	7,700	7,000	6,100	6,500
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	1	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL
Dissolved Iron			3,800	1,800	3,500	4,200	2,700	2,800	2,900	900	BDL	BDL	BDL	BDL	BDL	BDL
Dissolved Manganese			660	860	570	770	500	540	590	BDL	BDL	21	26	12	17	13
Iron (Total)			3,200	14,000	5,600	4,400	4,000	3,500	4,700	100	120	260	1,100	220	50	BDL
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL
Magnesium			14,000	12,000	9,600	11,000	8,700	9,200	9,300	1,700	1,200	980	1,300	1,000	840	670
Manganese (Total)	840	300	**670**	**800**	**620**	**730**	**500**	**550**	**630**	18	BDL	23	84	21	19	15
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.2	0.1	BDL	0.1	0.1	BDL
Nickel	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL
Potassium			48,000	6,000	4,200	4,400	3,900	4,100	4,300	6,000	5,900	4,700	4,800	4,600	4,100	4,200
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			12,000	15,000	12,000	13,000	12,000	12,000	12,000	43,000	43,000	39,000	40,000	38,000	35,000	35,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL
Zinc			7	BDL	BDL	BDL	BDL	BDL	BDL	5	BDL	BDL	14	5	BDL	BDL
FIELD PARAMETERS																
Temperature (degress Celcius)			14	9	14	15	15	11	12	13	9	14	16	14	15	16
pH (standard units)			6.5	6.7	6.6	6.3	5.9	6.5	6.9	8.0	7.9	7.3	7.5	7.0	8.4	8.5
Conductivity (us/cm)			215	274	242	279	263	225	291	184	201	162	210	248	186	228
Dissolved Oxygen (mg/l)			1.0	0.8	0.3	4.3	0.3	0.1	0.3	0.6	3.2	1.5	4.4	0.9	3.3	2.9
Turbidity (NTU)			11	93	45	4	15	9	27	2	3	100	7	1	2	1
Oxidation Reduction Potential (mV)			-22	119	20	14	44	-58	-170	-131	45	-3	28	-33	-104	-164

NOTES: SEE LAST PAGE

TABLE 3

Summary of OU-2 Groundwater Analytical Results
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Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-4B	FPC-4B	FPC-4B	FPC-4B	FPC-4B	FPC-4B	FPC-4B	FPC-5A	FPC-5A	FPC-5A	FPC-5A	FPC-5A	FPC-5A	FPC-5A	FPC-5A
DATE SAMPLED	AGQS	ICL	28-Aug-06	14-Nov-07	11-Aug-08	17-Aug-09	18-Aug-10	17-Aug-11	29-Aug-12	28-Aug-06	14-Nov-07	13-Aug-08	20-Aug-09	18-Aug-10	19-Aug-11	30-Aug-12	19-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane			BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	NA	< 1	BDL	NA	NA	NA	NA	NA	27	25	29
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																	
Aluminum			BDL	70	220	BDL	BDL	BDL	BDL	14	BDL	BDL	BDL	BDL	90	BDL	80
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**42**	**53**	**54**	**53**	**55**	**51**	**53**	**52**
Barium	2,000		3	7	5	4	6	5	5	120	130	120	130	120	120	110	100
Beryllium	4	4	BDL	**23**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			5,300	4,200	3,300	3,900	4,700	4,100	4,400	51,000	34,000	41,000	44,000	42,000	41,000	43,000	38,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL
Dissolved Iron			BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese			BDL	23	6	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Total)			100	110	650	BDL	BDL	BDL	BDL	9,200	8,300	11,000	9,700	9,400	9,300	8,900	7,900
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			3,500	2,800	2,100	2,500	2,900	2,600	2,300	28,000	19,000	21,000	27,000	22,000	21,000	20,000	19,000
Manganese (Total)	840	300	BDL	31	66	BDL	BDL	BDL	BDL	140	110	110	110	100	110	140	110
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	1	1	BDL	BDL	BDL	BDL	8	4	10	7	7	6	6	6
Potassium			2,200	1,900	1,500	1,600	1,900	1,900	1,800	27,000	22,000	25,000	27,000	23,000	22,000	22,000	18,000
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	5	3	3	4
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			5,100	6,000	5,000	6,000	7,000	6,000	6,000	120,000	120,000	120,000	110,000	110,000	94,000	100,000	90,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL
Zinc			7	6	BDL	BDL	5	BDL	BDL	7	BDL	BDL	BDL	6	BDL	BDL	BDL
FIELD PARAMETERS																	
Temperature (degress Celcius)			13	10	10	11	11	10	10	11	10	13	12	13	11	11	14
pH (standard units)			6.6	6.0	6.4	6.2	6.4	6.1	6.5	7.0	7.5	6.7	7.1	6.6	6.1	7.1	6.3
Conductivity (us/cm)			53	95	62	83	94	94	82	501	1,180	1,108	1,153	1,133	685	1,121	1,062
Dissolved Oxygen (mg/l)			7.6	0.6	7.1	3.1	0.2	0.2	0.3	1.1	0.3	0.3	3.4	0.3	7.5	0.1	0.6
Turbidity (NTU)			2	3	33	0	0	1	1	11	2	94	5	2	2	1	<5
Oxidation Reduction Potential (mV)			77	164	143	189	112	118	163	-95	-114	-6	-101	-62	-109	-182	-123

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-5B	FPC-5B	FPC-5B	FPC-5B	FPC-5B	FPC-5B	FPC-5B	FPC-6A	FPC-6A	FPC-6A	FPC-6A	FPC-6A	FPC-6A	FPC-6A	FPC-6A	FPC-6A-DUP
DATE SAMPLED	AGQS	ICL	25-Aug-05	15-Nov-07	13-Aug-08	20-Aug-09	18-Aug-10	19-Aug-11	30-Aug-12	28-Aug-06	14-Nov-07	13-Aug-08	17-Aug-09	19-Aug-10	18-Aug-11	29-Aug-12	19-Aug-13	19-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																		
Acetone	6,000		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	NA	NA	NA	NA	NA	NA	NA	BDL	2	BDL	BDL	2	1	1	BDL	BDL
Chlorobenzene	100	100	NA	NA	NA	NA	NA	NA	NA	3	5	BDL	3	5	3	4	3	3
Chloroethane			NA	NA	NA	NA	NA	NA	NA	4	8	BDL	5	8	6	6	BDL	BDL
Chloromethane	30		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		NA	NA	NA	NA	NA	NA	NA	BDL	1	BDL	BDL	2	1	1	BDL	BDL
1,1 Dichloroethane	81		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		NA	NA	NA	NA	NA	NA	NA	BDL	20	8	10	18	12	12	12	12
Tetrahydrofuran	154	154	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	50	53	NA	NA	NA	NA	NA	BDL	31	18	21
Methylethylketone (MEK)	4,000	200	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																		
Aluminum			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	60	60	BDL	50	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	4	1	1	3	2	2	BDL	3	2	**13**	**30**	9	**37**	**18**	**18**
Barium	2,000		47	64	39	54	42	39	33	53	95	44	29	45	48	42	37	36
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			11,000	7,200	5,400	7,400	5,900	5,000	4,900	17,000	20,000	6,800	24,000	39,000	33,000	38,000	28,000	27,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	5	4	5	6	6
Copper	1,300		BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL	2	2	BDL	BDL
Dissolved Iron			NA	NA	NA	NA	NA	NA	NA	6,400	8,600	5,400	2,200	3,900	1,100	4,200	NA	NA
Dissolved Manganese			NA	NA	NA	NA	NA	NA	NA	400	530	340	2,600	3,600	2,300	3,600	NA	NA
Iron (Total)			360	330	280	240	220	200	190	5,500	9,000	7,400	1,900	4,100	1,200	4,600	2,700	2,600
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			7,100	4,600	3,300	5,000	3,600	3,000	2,500	9,300	11,000	4,200	10,000	17,000	15,000	15,000	12,000	12,000
Manganese (Total)	840	300	88	95	74	87	70	56	59	**410**	**500**	**360**	**2,400**	**3,600**	**2,100**	**3,900**	**2,300**	**2,200**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	5	8	6	7	6	5	5	2	5	2	5	6	5	6	5	4
Potassium			9,600	7,100	6,500	7,800	6,200	5,800	5,700	6,000	6,600	4,300	6,200	8,600	8,000	8,500	6,900	6,600
Selenium	50		BDL	BDL	2	2	11	5	7	BDL	BDL	BDL	BDL	5	BDL	3	3	3
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			300,000	310,000	260,000	290,000	260,000	270,000	230,000	75,000	100,000	50,000	79,000	120,000	130,000	100,000	82,000	81,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	1	1	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			5	BDL	BDL	BDL	BDL	BDL	BDL	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS																		
Temperature (degress Celcius)			12	12	14	12	11	12	11	11	11	12	16	16	16	15	17	17
pH (standard units)			8.0	7.7	7.6	8.1	7.4	7.1	8.1	6.7	6.6	6.3	6.8	6.7	6.6	6.9	6.5	6.5
Conductivity (us/cm)			466	1,467	1,174	1,354	1,252	727	1,171	143	610	319	589	934	474	766	700	700
Dissolved Oxygen (mg/l)			2.4	1.5	1.6	1.1	0.4	7.0	0.2	2.1	1.3	1.4	0.3	0.9	0.5	1.4	1.4	1.4
Turbidity (NTU)			0	1	4	5	1	1	1	27	6	12	2	4	1	2	<5	<5
Oxidation Reduction Potential (mV)			-116	30	-87	-110	-66	-159	-187	-53	42	-13	-17	-66	-17	-62	-48	-48

NOTES: SEE LAST PAGE

TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-6B	FPC-6B	FPC-6B	FPC-6B	FPC-6B	FPC-6B	FPC-6B	FPC-7A	FPC-7A	FPC-7A	FPC-7A	FPC-7A	FPC-7A	FPC-7A	FPC-7A
DATE SAMPLED	AGQS	ICL	28-Aug-06	14-Nov-07	13-Aug-08	17-Aug-09	19-Aug-10	18-Aug-11	29-Aug-12	28-Aug-06	16-Nov-07	13-Aug-08	18-Aug-09	20-Aug-10	18-Aug-11	31-Aug-12	19-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	2	1	BDL	2	1	2	BDL	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	3	7	4	3	5	4	4	BDL	NA	NA	NA	NA	NA	NA	NA
Chloroethane			5	11	8	BDL	7	6	6	BDL	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	2	1	BDL	1	1	1	BDL	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	23	15	10	16	13	13	BDL	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	NA	BDL	23	NA	NA	NA	NA	NA	< 1	< 0.25	NA
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																	
Aluminum			140	980	90	BDL	BDL	BDL	BDL	BDL	520	320	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	5	9	**14**	2	3	5	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Barium	2,000		30	89	44	49	77	73	79	2	7	5	3	3	3	3	3
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			28,000	46,000	30,000	13,000	24,000	21,000	26,000	20,000	13,000	13,000	14,000	12,000	11,000	14,000	11,000
Chromium	100	50	BDL	3	2	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	5	6	BDL	BDL	BDL	BDL	BDL	6	2	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	6	1	BDL	BDL	BDL	BDL	BDL	3	1	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			1,600	810	1,500	5,600	6,800	6,900	6,900	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA
Dissolved Manganese			2,300	3,400	2,800	360	390	400	430	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA
Iron (Total)			1,600	1,800	1,700	6,500	7,100	6,800	7,300	BDL	1,300	740	BDL	BDL	BDL	BDL	BDL
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			12,000	23,000	13,000	6,600	13,000	11,000	12,000	6,400	4,400	3,800	4,100	3,900	3,200	3,800	3,300
Manganese (Total)	840	300	2,100	3,100	3,000	**340**	**400**	**380**	**470**	6	110	34	BDL	BDL	BDL	BDL	BDL
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	13	8	3	4	4	4	3	13	7	4	4	3	4	3
Potassium			6,600	10,000	8,100	4,800	7,400	7,000	7,900	2,700	2,800	2,100	2,100	2,000	1,800	1,900	1,700
Selenium	50		BDL	BDL	BDL	BDL	4	BDL	3	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			82,000	140,000	110,000	78,000	110,000	110,000	98,000	9,800	9,000	8,000	9,000	9,000	7,000	8,000	7,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			8	6	BDL	BDL	BDL	BDL	BDL	6	7	8	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS																	
Temperature (degress Celcius)			15	11	15	12	12	12	12	12	9	12	11	12	11	11	13
pH (standard units)			6.8	6.7	6.6	7.0	6.8	6.8	6.9	6.4	7.0	5.9	6.6	6.4	6.3	6.3	6.0
Conductivity (us/cm)			401	1,137	726	489	757	390	681	122	168	147	162	155	85	119	143
Dissolved Oxygen (mg/l)			0.8	0.4	0.2	0.3	0.2	0.2	0.3	4.6	3.7	4.8	4.6	4.4	4.5	4.8	4.9
Turbidity (NTU)			2	165	57	29	2	2	3	37	9	25	0	0	0	1	<5
Oxidation Reduction Potential (mV)			-39	45	0	-51	-111	-106	-89	94	169	151	218	145	251	108	343

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
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Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-7B	FPC-7B	FPC-7B	FPC-7B	FPC-7B	FPC-7B	FPC-7B	FPC-8A	FPC-8A	FPC-8A	FPC-8A	FPC-8A	FPC-8A	FPC-8A	FPC-8A
DATE SAMPLED	AGQS	ICL	28-Aug-06	16-Nov-07	13-Aug-08	18-Aug-09	20-Aug-10	18-Aug-11	31-Aug-12	28-Aug-06	8-Nov-07	11-Aug-08	20-Aug-09	18-Aug-10	17-Aug-11	31-Aug-12	14-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	< 1	< 0.25	NA	NA	NA	NA	< 1	< 1	0.51	0.60
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																	
Aluminum			BDL	BDL	140	60	BDL	BDL	BDL	380	670	BDL	2,600	2,500	1,000	1,100	220
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	4	2	6	7	8	6	2
Barium	2,000		BDL	3	18	4	3	3	3	4	8	4	15	17	10	10	7
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			14,000	16,000	14,000	16,000	15,000	14,000	16,000	26,000	21,000	24,000	21,000	20,000	18,000	25,000	27,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	6	3	3	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	2	BDL	1	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	4	4	2	2	BDL
Dissolved Iron			BDL	BDL	70	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Manganese			BDL	BDL	36	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Total)			1,200	270	8,300	500	BDL	BDL	BDL	900	1,300	340	3,600	4,100	2,600	2,400	540
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	2	BDL	BDL	BDL
Magnesium			3,800	4,600	3,700	4,500	4,100	3,800	3,800	3,500	3,300	3,200	4,300	3,700	3,100	3,800	4,000
Manganese (Total)	840	300	200	76	**1,800**	110	14	15	9	150	150	62	190	210	260	270	210
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	2	18	2	BDL	BDL	BDL	BDL	2	BDL	4	5	3	3	1
Potassium			2,000	2,400	1,900	2,100	1,900	1,900	1,900	2,400	2,000	2,100	2,500	2,300	2,000	2,200	2,100
Selenium	50		BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			7,800	10,000	9,000	10,000	9,000	8,000	8,000	11,000	12,000	13,000	13,000	12,000	12,000	13,000	14,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	7	6	2	BDL	BDL
Zinc			6	BDL	9	8	BDL	BDL	BDL	6	BDL	BDL	10	12	6	6	BDL
FIELD PARAMETERS																	
Temperature (degress Celcius)			12	9	12	13	12	12	12	12	9	11	11	11	11	10	14
pH (standard units)			6.6	6.5	6.1	6.5	6.5	6.4	6.5	6.4	6.8	6.7	7.0	6.7	6.4	6.8	6.5
Conductivity (us/cm)			127	171	159	172	171	96	133	162	211	200	223	220	177	243	300
Dissolved Oxygen (mg/l)			9.6	4.0	3.7	2.7	2.1	2.1	2.3	2.0	0.9	0.4	1.3	0.8	1.0	0.6	1.1
Turbidity (NTU)			71	3	111	2	1	1	2	2	28	10	1	107	36	43	26
Oxidation Reduction Potential (mV)			105	105	169	201	128	204	-131	96	-42	101	21	-16	22	6	31

NOTES: SEE LAST PAGE

TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-8B	FPC-8B	FPC-8B	FPC-8B	FPC-8B	FPC-8B	FPC-8B	FPC-9A	FPC-9A	FPC-9A	FPC-9A	FPC-9A	FPC-9A	FPC-9A	FPC-9A
DATE SAMPLED	AGQS	ICL	28-Aug-06	8-Nov-07	11-Aug-08	19-Aug-09	19-Aug-10	17-Aug-11	31-Aug-12	30-Aug-06	12-Nov-07	13-Aug-08	17-Aug-09	16-Aug-10	15-Aug-11	31-Aug-12	12-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Chloroethane			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	1	< 1	0.93	NA	NA	NA	NA	NA	NA	NA	NA
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																	
Aluminum			13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,000	BDL	BDL	170	160	BDL	220
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	5	7	7	7	7	8	7	**44**	**37**	**26**	**34**	**36**	**42**	**41**	**45**
Barium	2,000		6	7	7	8	8	7	6	120	92	65	88	75	98	85	100
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			30,000	20,000	21,000	23,000	22,000	21,000	23,000	66,000	47,000	54,000	51,000	42,000	49,000	56,000	56,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			NA	BDL	60	BDL	BDL	BDL	BDL	NA	7,000	4,500	6,300	4,800	6,300	5,900	NA
Dissolved Manganese			NA	33	25	25	28	29	30	NA	450	510	270	210	260	290	NA
Iron (Total)			130	60	140	60	90	90	BDL	9,600	8,600	4,700	6,300	5,600	7,100	6,600	7,500
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			6,900	4,300	4,300	5,000	4,800	4,500	4,300	37,000	23,000	22,000	25,000	20,000	24,000	26,000	24,000
Manganese (Total)	840	300	21	29	28	25	32	32	29	270	**410**	**520**	270	220	260	**310**	240
Mercury	2		BDL	0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4	7	4	3	3	3	3	4
Potassium			3,600	2,600	3,000	2,700	2,900	2,700	2,600	14,000	8,600	8,100	9,200	7,800	8,900	8,900	8,700
Selenium	50		BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	2	BDL	2	2	BDL	2	3
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			18,000	16,000	17,000	18,000	17,000	17,000	16,000	94,000	100,000	78,000	89,000	76,000	73,000	77,000	83,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			6	BDL	12	BDL	BDL	BDL	BDL	6	58	27	5	27	11	24	21
FIELD PARAMETERS																	
Temperature (degress Celcius)			12	9	11	11	12	11	13	11	8	11	14	10	11	10	13
pH (standard units)			7.3	7.8	8.0	8.2	7.2	7.7	8.2	7.0	7.0	6.8	7.6	6.5	7.2	7.2	6.9
Conductivity (us/cm)			176	236	216	253	241	210	224	941	941	880	1	893	898	760	990
Dissolved Oxygen (mg/l)			5.5	0.9	0.1	0.2	0.9	0.4	0.3	1.4	0.4	0.4	0.2	0.5	0.3	0.2	1.2
Turbidity (NTU)			0	2	71	7	3	2	1	16	40	95	2	8	9	5	31
Oxidation Reduction Potential (mV)			-61	1	-163	-150	9	-161	-122	-113	26	-5	-96	-42	-134	-194	-124

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
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Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	FPC-11A	FPC-11A	FPC-11A	FPC-11A	FPC-11A	FPC-11A	FPC-11A	FPC-11B	FPC-11B	FPC-11B	FPC-11B	FPC-11B	FPC-11B	FPC-11B
DATE SAMPLED	AGQS	ICL	30-Aug-06	15-Nov-07	12-Aug-08	17-Aug-09	16-Aug-10	15-Aug-11	31-Aug-12	30-Aug-06	15-Nov-07	12-Aug-08	17-Aug-09	16-Aug-10	15-Aug-11	31-Aug-12
VOLATILE ORGANIC COMPOUNDS (ug/l)																
Acetone	6,000		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Chloroethane			BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
cis-1,2 Dichloroethene	70		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylethylketone (MEK)	4,000	200	BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
Methyl t-butyl ether (MTBE)	13		BDL	NA	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA
METALS (ug/l)																
Aluminum			270	640	120	BDL	100	170	8	13,000	350	BDL	90	50	6,100	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	1	1	BDL	9	8	7	6	9	8	**10**	**10**	4	3
Barium	2,000		4	17	15	10	36	34	21	72	18	34	48	52	32	37
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			7,400	28,000	25,000	17,000	60,000	49,000	62,000	64,000	54,000	75,000	56,000	58,000	4,800	48,000
Chromium	100	50	BDL	2	BDL	BDL	BDL	BDL	BDL	16	BDL	2	BDL	BDL	16	BDL
Cobalt			8	2	BDL	BDL	BDL	BDL	BDL	21	6	4	1	BDL	23	2
Copper	1,300		BDL	3	BDL	BDL	BDL	1	BDL	4	2	BDL	BDL	BDL	14	BDL
Dissolved Iron			BDL	BDL	BDL	BDL	750	630	3,000	2,100	240	2,800	1,900	1,200	BDL	800
Dissolved Manganese			BDL	600	BDL	BDL	400	350	430	770	1,500	1,300	780	490	62	530
Iron (Total)			1,000	2,100	390	100	910	1,000	3,200	13,000	1,900	3,200	1,900	1,400	11,000	890
Lead	15	15	BDL	2	BDL	BDL	BDL	BDL	BDL	6	1	BDL	BDL	BDL	6	BDL
Magnesium			1,700	6,100	5,200	3,800	19,000	17,000	18,000	27,000	12,000	16,000	19,000	20,000	5,700	16,000
Manganese (Total)	840	300	22	**500**	36	10	**400**	**350**	**440**	**880**	**1,300**	**1,400**	**710**	**520**	210	**580**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	9	4	3	BDL	1	BDL	17	13	12	3	BDL	30	2
Potassium			28,000	3,800	3,000	2,400	5,300	5,200	5,400	6,500	3,600	5,300	5,800	5,800	2,000	5,400
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	1	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			28,000	20,000	39,000	37,000	100,000	95,000	110,000	95,000	41,000	38,000	88,000	93,000	9,000	110,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	3	1	BDL	BDL	2	BDL	7	1	BDL	BDL	BDL	12	BDL
Zinc			6	26	BDL	6	BDL	13	BDL	19	31	13	8	BDL	35	BDL
FIELD PARAMETERS																
Temperature (degress Celcius)			12	13	13	14	17	13	13	12	12	14	13	13	15	13
pH (standard units)			6.8	5.9	6.0	6.0	6.6	6.9	7.0	6.7	6.7	7.0	7.0	6.8	6.5	7.3
Conductivity (us/cm)			164	348	394	312	978	945	864	398	761	712	935	1,032	29	965
Dissolved Oxygen (mg/l)			8.9	4.8	6.1	6.0	2.2	0.3	0.2	6.6	0.8	0.3	0.4	0.4	9.5	0.1
Turbidity (NTU)			353	21	94	124	2	4	5	2,906	17	22	2	2	15	3
Oxidation Reduction Potential (mV)			58	137	193	178	20	-40	-190	-36	110	9	-72	-38	132	-86

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Summary of OU-2 Groundwater Analytical Results
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SAMPLE IDENTIFICATION	NHDES	EPA	GZ-105	GZ-105	GZ-105	GZ-105	GZ-105	GZ-105	GZ-105	GZ-123	GZ-123	GZ-123	GZ-123	GZ-123	GZ-123
DATE SAMPLED	AGQS	ICL	29-Aug-06	14-Nov-07	11-Aug-08	19-Aug-09	18-Aug-10	17-Aug-11	31-Aug-12	12-Nov-07	12-Aug-08	18-Aug-09	16-Aug-10	17-Aug-11	28-Aug-12
VOLATILE ORGANIC COMPOUNDS (ug/l)															
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	**6**	**6**	**6**	**6**	**7**	**6**	**6**	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	9	10	10	11	11	11	9	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			7	9	11	12	9	11	9	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		2	4	4	5	5	5	4	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	2	2	2	3	3	2	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		49	61	57	62	57	54	47	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	83	80	70	80	70	70	50	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	1	1	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	80	98	NA	NA	NA	NA	BDL	BDL
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)															
Aluminum			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	6	**11**	**10**	**13**	**15**	**16**	**15**	BDL	BDL	BDL	BDL	BDL	BDL
Barium	2,000		43	52	48	61	60	59	55	5	4	5	4	5	4
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			65,000	44,000	49,000	69,000	73,000	73,000	78,000	11,000	12,000	16,000	13,000	12,000	13,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	3	5	4	5	3
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			5,300	3,800	3,700	4,700	4,500	4,600	4,600	1,700	370	2,500	1,900	5,100	4,300
Dissolved Manganese			510	470	400	500	450	460	510	3,600	1,900	3,200	2,100	2,300	1,600
Iron (Total)			6,200	5,100	3,700	4,900	4,800	4,800	4,900	3,900	1,800	2,300	4,500	6,000	5,700
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			23,000	18,000	18,000	27,000	24,000	23,000	23,000	3,000	3,100	4,500	3,700	3,500	3,300
Manganese (Total)	840	300	**480**	**390**	**400**	**500**	**460**	**470**	**520**	**3,300**	**2,300**	**3,000**	**2,200**	**2,400**	**1,700**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	7	8	9	9	9	8	8	5	4	5	4	3	2
Potassium			7,500	5,700	6,200	7,100	6,500	6,200	6,000	2,100	1,900	2,100	1,800	1,900	1,800
Selenium	50		BDL	BDL	BDL	1	11	BDL	7	BDL	BDL	BDL	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			153,000	160,000	160,000	150,000	160,000	140,000	140,000	17,000	15,000	17,000	15,000	15,000	15,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			4	BDL	BDL	BDL	BDL	BDL	BDL	8	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS															
Temperature (degress Celcius)			11	10	11	11	10	10	10	12	12	15	14	13	14
pH (standard units)			8.5	7.2	8.0	7.6	7.3	7.1	7.3	5.6	5.6	6.1	5.3	5.4	6.0
Conductivity (us/cm)			431	1,145	512	1,360	1,294	1,293	1,182	220	183	245	237	210	200
Dissolved Oxygen (mg/l)			1.7	0.3	0.2	0.2	0.1	0.1	0.1	0.8	2.4	2.6	3.4	3.4	2.6
Turbidity (NTU)			46	19	16	4	0	1	1	23	35	4	18	5	8
Oxidation Reduction Potential (mV)			-190	29	-118	-119	-154	-153	-133	129	162	121	125	61	76

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
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Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	GZ-125	GZ-125	GZ-125	GZ-125	GZ-125	GZ-125	AE-1A	AE-1A	AE-1A	AE-1A	AE-1A	AE-1A	AE-1A	AE-1A
DATE SAMPLED	AGQS	ICL	12-Nov-07	12-Aug-08	18-Aug-09	8-Feb-11	15-Aug-11	28-Aug-12	30-Aug-06	16-Nov-07	12-Aug-08	20-Aug-09	18-Aug-10	15-Aug-11	31-Aug-12	12-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	5	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	100	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane			BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Ether	1,400		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	3		NA	NA	NA	NA	BDL	BDL	NA	NA	NA	NA	NA	< 1	NA	NA
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA
METALS (ug/l)																
Aluminum			BDL	BDL	BDL	BDL	BDL	BDL	63	970	180	BDL	BDL	BDL	100	4,700
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	BDL	BDL	BDL	BDL	BDL	**15**	**39**	**41**	**29**	**20**	**22**	**18**	**18**
Barium	2,000		4	3	3	4	6	5	18	22	18	18	19	19	18	48
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			14,000	13,000	15,000	14,000	13,000	15,000	45,000	14,000	11,000	25,000	29,000	29,000	33,000	25,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	BDL	BDL	BDL	BDL	BDL	8
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	16	3	BDL	BDL	BDL	BDL	BDL	4
Copper	1,300		BDL	BDL	BDL	2	3	3	BDL	9	3	BDL	BDL	BDL	BDL	16
Dissolved Iron			BDL	BDL	BDL	480	BDL	810	400	BDL	BDL	120	210	140	320	NA
Dissolved Manganese			170	53	88	240	210	310	450	6	BDL	320	360	380	480	NA
Iron (Total)			350	790	1,400	5,400	14,000	44,000	340	3,100	140	100	260	270	490	8,200
Lead	15	15	BDL	BDL	BDL	2	4	BDL	BDL	**15**	3	BDL	BDL	BDL	BDL	4
Magnesium			8,600	8,000	8,900	7,600	8,100	8,100	16,000	3,000	2,000	8,600	9,600	10,000	10,000	11,000
Manganese (Total)	840	300	160	62	81	290	230	**310**	**440**	130	14	250	**380**	**390**	**500**	**470**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5	BDL	BDL	BDL	BDL	BDL	13
Potassium			2,800	2,600	2,600	2,400	2,500	2,600	4,900	4,300	3,100	3,800	3,400	3,500	3,600	4,500
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			18,000	17,000	19,000	1,600	18,000	18,000	22,000	26,000	23,000	24,000	20,000	20,000	20,000	14,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	BDL	BDL	BDL	BDL	10
Zinc			6	8	6	12	26	8	10	45	9	BDL	BDL	BDL	BDL	34
FIELD PARAMETERS																
Temperature (degress Celcius)			10	13	12	8	13	17	12	10	15	13	13	14	11	NA
pH (standard units)			5.8	5.9	5.8	6.2	6.1	7.2	8.8	8.8	8.8	8.8	7.2	8.0	7.5	NA
Conductivity (us/cm)			276	240	281	282	455	408	227	208	175	262	386	389	312	NA
Dissolved Oxygen (mg/l)			3.0	3.1	2.0	2.2	3.6	2.0	3.6	2.3	3.2	1.4	0.7	0.5	1.5	NA
Turbidity (NTU)			5	23	17	23	96	136	83	16	12	3	0	1	12	NA
Oxidation Reduction Potential (mV)			165	186	172	45	222	183	-50	88	82	74	-22	-168	-178	NA

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
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SAMPLE IDENTIFICATION	NHDES	EPA	AE-1B	AE-1B	AE-1B	AE-1B	AE-1B	AE-1B	AE-2A	AE-2A	AE-2A	AE-2A	AE-2A	AE-2A	AE-2A	AE-2A
DATE SAMPLED	AGQS	ICL	12-Aug-08	20-Aug-09	16-Aug-10	16-Aug-11	30-Aug-12	13-Aug-13	30-Aug-06	8-Nov-07	11-Aug-08	18-Aug-09	17-Aug-10	16-Aug-11	30-Aug-12	15-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																
Acetone	6,000		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	NA	NA	NA	NA	NA	NA	BDL	2	BDL	BDL	1	1	BDL	BDL
Chlorobenzene	100	100	NA	NA	NA	NA	NA	NA	BDL	5	2	2	3	3	BDL	BDL
Chloroethane			NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		NA	NA	NA	NA	NA	NA	BDL	2	1	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		NA	NA	NA	NA	NA	NA	BDL	19	7	6	7	6	BDL	5
Tetrahydrofuran	154	154	NA	NA	NA	NA	NA	NA	BDL	20	BDL	10	BDL	BDL	BDL	BDL
Toluene	1,000		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	12	14	16	15
Methylethylketone (MEK)	4,000	200	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	32	BDL	BDL	BDL
METALS (ug/l)																
Aluminum			BDL	BDL	BDL	470	BDL	170	BDL	BDL	210	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	3	4	6	6	7	8	**240**	**280**	**230**	**240**	**240**	**250**	**240**	**190**
Barium	2,000		150	58	37	60	35	40	26	41	30	28	32	34	28	28
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			22,000	25,000	23,000	25,000	28,000	26,000	21,000	29,000	23,000	24,000	28,000	27,000	28,000	25,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	BDL	BDL	BDL	BDL	BDL	8	13	11	10	11	11	10	10
Copper	1,300		2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			BDL	1,100	2,300	1,700	2,100	NA	14,000	19,000	15,000	17,000	16,000	19,000	16,000	NA
Dissolved Manganese			BDL	750	500	500	540	NA	510	830	560	710	660	830	790	NA
Iron (Total)			620	1,100	2,500	2,600	2,300	2,200	12,000	19,000	16,000	14,000	16,000	17,000	16,000	16,000
Lead	15	15	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			10,000	13,000	12,000	12,000	13,000	12,000	9,300	11,000	8,300	9,000	11,000	9,900	9,200	9,000
Manganese (Total)	840	300	**300**	**730**	**530**	**560**	**590**	**490**	**510**	**770**	**610**	**650**	**700**	**740**	**820**	**810**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	BDL	BDL	BDL	BDL	BDL	12	12	12	10	9	8	8	17
Potassium			10,000	9,300	6,100	6,100	5,700	4,900	16,000	21,000	17,000	16,000	17,000	16,000	15,000	14,000
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	2	2
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			31,000	33,000	25,000	24,000	24,000	20,000	43,000	39,000	32,000	33,000	35	33,000	33,000	32,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc			7	BDL	BDL	6	BDL	BDL	6	BDL	BDL	7	BDL	BDL	BDL	BDL
FIELD PARAMETERS																
Temperature (degress Celcius)			14	13	12	11	11	NA	12	10	11	11	12	11	11	15
pH (standard units)			7.8	7.6	6.7	7.4	7.4	NA	6.5	6.7	6.5	7.3	6.1	6.3	6.6	6.4
Conductivity (us/cm)			387	472	440	464	462	NA	321	743	514	614	663	562	636	612
Dissolved Oxygen (mg/l)			6.2	1.0	0.8	3.0	1.9	NA	3.9	0.4	0.1	0.2	0.3	0.5	0.2	1.7
Turbidity (NTU)			163	3	1	7	2	NA	0	1	74	2	1	1	1	16
Oxidation Reduction Potential (mV)			113	-81	-40	132	-132	NA	-29	-102	-59	-69	-33	-88	-176	-81

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SAMPLE IDENTIFICATION	NHDES	EPA	AE-2B	AE-2B	AE-2B	AE-2B	AE-2B	AE-2B	AE-2B	AE-2B	AE-3A	AE-3A	AE-3A	AE-3A	AE-3A	AE-3A	AE-3A	AE-3A
DATE SAMPLED	AGQS	ICL	29-Aug-06	8-Nov-07	11-Aug-08	18-Aug-09	17-Aug-10	16-Aug-11	30-Aug-12	15-Aug-13	29-Aug-06	15-Nov-07	12-Aug-08	18-Aug-09	19-Aug-10	19-Aug-11	30-Aug-12	15-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																		
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	3	**5**	**5**	2	2	1	2	2	BDL	2	2	2	2	1	1	1
Chlorobenzene	100	100	3	5	5	3	3	2	BDL	BDL	6	9	8	7	6	6	6	5
Chloroethane			8	11	12	6	BDL	BDL	BDL	BDL	13	12	13	11	9	8	7	7
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	1	1	BDL	BDL	BDL	BDL	BDL	BDL	2	1	1	1	1	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		46	65	63	39	29	20	22	26	BDL	18	19	15	14	12	10	12
Tetrahydrofuran	154	154	69	60	70	50	30	30	30	30	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	110	80	82	88	NA	NA	NA	NA	23	19	24	21
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																		
Aluminum			BDL	BDL	BDL	BDL	BDL	70	BDL	BDL	BDL	BDL	100	BDL	BDL	BDL	BDL	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**24**	**20**	**19**	**26**	**16**	**28**	**20**	**20**	**100**	**130**	**150**	**120**	**120**	**110**	**110**	**140**
Barium	2,000		200	190	170	160	120	120	110	120	65	86	85	76	69	71	66	64
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			72,000	57,000	49,000	52,000	45,000	39,000	52,000	38,000	45,000	38,000	42,000	45,000	40,000	40,000	48,000	35,000
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3
Cobalt			BDL	4	2	BDL	2	1	2	2	BDL	3	3	4	3	3	3	3
Copper	1,300		BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	1	1	BDL	BDL	BDL	BDL
Dissolved Iron			25,000	18,000	15,000	13,000	6,100	8,600	9,000	NA	19,000	19,000	20,000	24,000	17,000	20,000	20,000	NA
Dissolved Manganese			2,300	2,200	1,500	1,700	1,200	1,200	1,300	NA	660	890	800	1,300	740	910	1,100	NA
Iron (Total)			22,000	18,000	16,000	13,000	6,800	8,800	10,000	10,000	22,000	19,000	22,000	26,000	18,000	21,000	22,000	18,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL
Magnesium			60,000	40,000	32,000	35,000	29,000	24,000	27,000	24,000	24,000	20,000	21,000	25,000	19,000	19,000	1,200	16,000
Manganese (Total)	840	300	**2,400**	**2,100**	**1,700**	**1,700**	**1,300**	**1,200**	**1,500**	**1,200**	**690**	**840**	**850**	**1,300**	**760**	**900**	**1,200**	**840**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	10	13	10	10	9	7	8	8	8	8	9	8	7	6	7	6
Potassium			16,000	13,000	13,000	13,000	12,000	11,000	12,000	10,000	24,000	22,000	22,000	26,000	20,000	19,000	20,000	16,000
Selenium	50		BDL	BDL	1	2	9	BDL	5	6	BDL	BDL	BDL	BDL	4	BDL	2	3
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			180,000	230,000	200,000	190,000	160,000	140,000	160,000	150,000	87,000	100,000	86,000	73,000	73,000	66,000	63,000	63,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1	1	BDL	BDL	BDL	BDL
Zinc			6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3	BDL	7	BDL	BDL	BDL	BDL	BDL
FIELD PARAMETERS																		
Temperature (degress Celcius)			12	10	11	13	14	12	14	15	15	12	14	15	14	14	14	15
pH (standard units)			6.7	7.1	6.8	7.3	6.5	6.8	7.0	6.9	6.8	7.3	6.6	6.5	6.8	5.3	6.8	6.7
Conductivity (us/cm)			1,269	1,610	1,366	1,530	1,325	1,026	1,292	1,233	926	1,124	1,076	970	1,016	601	1,009	953
Dissolved Oxygen (mg/l)			1.5	1.0	0.7	0.3	1.0	0.3	2.9	1.9	1.7	0.3	0.2	0.3	0.3	1.7	0.2	1.2
Turbidity (NTU)			3	1	27	2	1	2	3	13	5	4	28	11	4	7	2	11
Oxidation Reduction Potential (mV)			-127	-58	-102	-94	-53	-135	-146	-117	-98	-109	-85	-95	-119	-84	-103	-116

NOTES: SEE LAST PAGE

TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES	EPA	AE-3B	AE-3B	AE-3B	AE-3B	AE-3B	AE-3B	AE-3B	AE-4A	AE-4A	AE-4A	AE-4A	AE-4A	AE-4A	AE-4A	AE-4A
DATE SAMPLED	AGQS	ICL	29-Aug-06	16-Nov-07	12-Aug-08	18-Aug-09	20-Aug-10	17-Aug-11	30-Aug-12	28-Aug-06	14-Nov-07	11-Aug-08	18-Aug-09	18-Aug-10	17-Aug-11	29-Aug-12	19-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)																	
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	BDL	BDL	1	1	2	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	BDL	BDL	BDL	5	5	7	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			6	5	BDL	9	8	9	8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	1	1	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	13	12	14	14	13	12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	24	19	27	NA	NA	NA	NA	NA	BDL	< 0.25	BDL
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)																	
Aluminum			BDL	BDL	BDL	BDL	BDL	BDL	BDL	240	70	470	100	60	BDL	110	BDL
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**8**	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	**91**	**82**	**95**	**91**	**79**	**83**	**88**	BDL	3	**10**	3	2	1	1	BDL
Barium	2,000		180	130	150	160	130	150	130	11	15	20	13	12	12	12	11
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			57,000	45,000	48,000	45,000	41,000	42,000	49,000	6,900	4,900	6,100	6,300	6,000	6,800	6,900	5,700
Chromium	100	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt			BDL	1	1	1	BDL	BDL	BDL	BDL	3	1	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL
Dissolved Iron			17,000	16,000	12,000	15,000	12,000	14,000	13,000	3,700	160	2,900	3,500	1,500	970	1,600	NA
Dissolved Manganese			1,000	760	430	1,400	940	1,300	1,400	300	330	330	350	290	320	380	NA
Iron (Total)			14,000	12,000	13,000	16,000	12,000	15,000	15,000	9,100	6,500	28,000	9,500	5,000	3,600	4,000	2,000
Lead	15	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium			32,000	22,000	25,000	26,000	21,000	19,000	21,000	6,100	4,300	5,200	5,800	4,900	5,500	5,400	4,800
Manganese (Total)	840	300	**1,000**	**570**	**480**	**1,400**	**950**	**1,400**	**1,500**	**310**	290	**400**	**320**	290	**470**	**420**	**380**
Mercury	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	6	8	9	7	6	5	6	BDL	7	2	BDL	BDL	BDL	BDL	BDL
Potassium			25,000	20,000	21,000	23,000	19,000	18,000	19,000	2,300	2,300	2,400	2,300	2,300	2,700	2,400	2,000
Selenium	50		BDL	BDL	BDL	BDL	5	BDL	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			110,000	110,000	120,000	92,000	82,000	64,000	74,000	6,700	7,000	7,000	8,000	7,000	8,000	8,000	7,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL
Zinc			5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	8	BDL	6	BDL	BDL	BDL
FIELD PARAMETERS																	
Temperature (degress Celcius)			12	10	11	13	13	12	12	12	11	14	15	15	15	15	15
pH (standard units)			7.2	7.2	7.2	7.4	6.9	6.7	6.8	6.4	6.9	6.6	6.8	6.5	6.3	6.7	6.5
Conductivity (us/cm)			969	1,208	1,126	1,156	1,057	1,057	1,029	111	118	129	147	142	146	129	133
Dissolved Oxygen (mg/l)			1.4	0.5	0.2	0.3	0.1	0.5	0.2	1.2	4.0	1.1	0.3	0.3	0.5	0.6	0.7
Turbidity (NTU)			5	16	88	5	1	1	1	4	82	490	68	36	17	12	13
Oxidation Reduction Potential (mV)			-149	90	-142	-96	-125	-113	-113	-83	78	-8	-18	-16	3	-25	-11

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TABLE 3

Summary of OU-2 Groundwater Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES AGQS	EPA ICL	AE-4B	AE-4B	AE-4B	AE-4B	AE-4B	AE-4B	AE-4B	AE-4B
DATE SAMPLED			28-Aug-06	14-Nov-07	11-Aug-08	18-Aug-09	18-Aug-10	17-Aug-11	29-Aug-12	19-Aug-13
VOLATILE ORGANIC COMPOUNDS (ug/l)										
Acetone	6,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	5	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	30		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene	75		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1 Dichloroethane	81		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2 Dichloroethene	70		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	800		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p - Isopropyltoluene	260		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	20		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Diethyl Ether	1,400		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	154	154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	1,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5 Trimethylbenzene	330		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	10,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m&p - Xylene			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3		NA	NA	NA	NA	NA	BDL	< 0.25	BDL
Methylethylketone (MEK)	4,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylisobutylketone (MIBK)	2,000		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-butyl ether (MTBE)	13		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS (ug/l)										
Aluminum			1,500	1,200	1,200	530	790	500	70	100
Antimony	6	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	10	10	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL
Barium	2,000		8	28	19	12	13	12	7	7
Beryllium	4	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	5		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium			7,700	6,400	7,100	7,300	7,000	7,300	7,500	5,900
Chromium	100	50	BDL	3	2	BDL	1	BDL	BDL	BDL
Cobalt			BDL	2	1	BDL	BDL	BDL	BDL	BDL
Copper	1,300		BDL	5	4	2	2	2	BDL	BDL
Dissolved Iron			BDL	BDL	400	BDL	BDL	BDL	90	NA
Dissolved Manganese			90	84	250	42	23	100	9	NA
Iron (Total)			1,500	1,900	2,100	720	1,200	800	80	BDL
Lead	15	15	BDL	2	2	BDL	BDL	BDL	BDL	BDL
Magnesium			4,700	5,100	5,200	5,700	5,300	5,400	4,900	4,300
Manganese (Total)	840	300	220	**1,100**	**600**	260	190	220	13	8
Mercury	2		BDL	0.3	0.1	BDL	BDL	BDL	BDL	BDL
Nickel	100	100	BDL	3	2	1	1	BDL	BDL	BDL
Potassium			5,000	4,200	4,600	4,200	3,800	4,100	3,600	2,900
Selenium	50		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silver	100		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium			23,000	22,000	20,000	21,000	18,000	18,000	16,000	13,000
Thallium	2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium		260	BDL	3	2	BDL	BDL	BDL	BDL	BDL
Zinc			6	8	8	BDL	6	BDL	BDL	BDL
FIELD PARAMETERS										
Temperature (degress Celcius)			12	10	11	13	12	11	11	14
pH (standard units)			6.7	7.3	6.8	7.0	6.7	6.6	6.8	6.3
Conductivity (us/cm)			156	207	176	205	196	196	162	174
Dissolved Oxygen (mg/l)			1.4	0.5	0.6	1.3	1.3	1.6	2.1	2.1
Turbidity (NTU)			6	49	115	16	14	16	3	<5
Oxidation Reduction Potential (mV)			-37	92	115	167	68	58	159	270

NOTES:

1. NA = Sample was not analyzed/measured for indicated parameter
   BDL = Below Detection Limit
   < 0.25 or < 1 = 1,4-dioxane analyzed using low-level methodology and reported below the detection limited indicated
2. NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standard (Env-Or-600, Table 600-1)
   EPA ICL = US Environmental Protection Agency Interim Cleanup Level (1990/1994 Record of Decision, 2007 Explanation of Significant Differences)
3. **Bolded** denote concentration at or exceeding EPA Interim Cleanup Level (ICL)
4. Shaded values denote concentration at or exceeding NHDES Ambient Groundwater Quality Standard
5. Volatile organic compound and metals results are in micrograms per liter (ug/l).
6. Field Parameter Units: us/cm = microsiemens per centimeter, mg/l = milligram per liter
   NTU = nephelometric turbidity unit, mV = millivolt

TABLE 4

Summary of Analytical Results for Interval Sampled Wells

August 2013 Annual Report

Coakley Landfill - North Hampton, New Hampshire

Monitoring Well MW-11		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		34.6				
Sample ID	GW-MW-11-37BGS-0813	39.9	34	14	370	X
	GW-MW-11-42BGS-0813	44.9	27	13	390	
	GW-MW-11-47BGS-0813	49.9	27	13	380	
Bottom of Screen Interval		54.6				

Monitoring Well MW-5D		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		141.3				
Sample ID	GW-MW-5D-144BGS-0813	146.3	190	11	640	X
	GW-MW-5D-149BGS-0813	151.3	120	9	650	
	GW-MW-5D-154BGS-0813	156.3	140	7	640	
Bottom of Screen Interval		161.3				

Monitoring Well MW-5S		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		53				
Sample ID	GW-MW-5S-53BGS-0813	58	71	30	3,000	X
	GW-MW-5S-58BGS-0813	63	55	30	2,800	
	GW-MW-5S-63BGS-0813	68	60	28	2,500	
	GW-MW-5S-68BGS-0813	73	46	23	2,100	
	GW-MW-5S-73BGS-0813	78	50	15	2,500	
Bottom of Screen Interval		83				

Monitoring Well MW-8		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		47.5				
Sample ID	GW-MW-8-49BGS-0813	52	240	8	35	
	GW-MW-8-54BGS-DUP-0813	57	250	12	1,200	X
	GW-MW-8-54BGS-0813		240	13	1,300	
	GW-MW-8-59BGS-0813	62	250	11	1,200	
Bottom of Screen Interval		67.5				

TABLE 4

Summary of Analytical Results for Interval Sampled Wells

August 2013 Annual Report

Coakley Landfill - North Hampton, New Hampshire

Monitoring Well AE-3B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		31				
Sample ID	GW-AE-3B-30BGS-0813	33	25	31	330	
	GW-AE-3B-34BGS-0813	37	24	45	350	
	GW-AE-3B-38BGS-0813	41	25	69	450	X
Bottom of Screen Interval		43				

Monitoring Well FPC-4B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		20.3				
Sample ID	GW-FPC-4B-20BGS-0813	22.3	<0.25	<1	25	
	GW-FPC-4B-26BGS-0813	28.3	<0.25	<1	28	
	GW-FPC-4B-31BGS-0813	33.3	<0.25	<1	46	X
Bottom of Screen Interval		35.3				

Monitoring Well FPC-5B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		98.6				
Sample ID	GW-FPC-5B-97BGS-0813	100.6	64	3	58	
	GW-FPC-5B-103BGS-0813	106.6	67	3	53	X
	GW-FPC-5B-108BGS-0813	111.6	63	3	54	
Bottom of Screen Interval		113.6				

Monitoring Well FPC-6B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		15.8				
Sample ID	GW-FPC-6B-16BGS-0813	18.2	18	3	380	X
	GW-FPC-6B-21BGS-0813	23.2	13	2	360	
	GW-FPC-6B-26BGS-0813	28.2	12	2	370	
Bottom of Screen Interval		30.8				

TABLE 4

Summary of Analytical Results for Interval Sampled Wells
August 2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

Monitoring Well FPC-7B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		32.3				
Sample ID	GW-FPC-7B-33BGS-0813	34.9	<0.25	3	570	
	GW-FPC-7B-38BGS-0813	39.9	<0.25	5	1,100	X
	GW-FPC-7B-43BGS-0813	44.9	<0.25	<1	400	
Bottom of Screen Interval		47.3				

Monitoring Well FPC-8B		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		42.5				
Sample ID	GW-FPC-8B-43BGS-0813	44.5	0.70	8	34	
	GW-FPC-8B-48BGS-0813	50.5	0.79	7	39	
	GW-FPC-8B-53BGS-0813	55.5	0.93	7	35	X
Bottom of Screen Interval		57.5				

Monitoring Well GZ-105		Depth of Tubing Intake from Top of PVC Casing (Feet)	Analytical Results			Proposed Depth of Tubing Intake for Future Sampling Events
			1,4-Dioxane (ug/L)	Total Arsenic (ug/L)	Total Manganese (ug/L)	
Top of Screen Interval		37				
Sample ID	GW-GZ-105-37BGS-0813	39	5.3	1	45	X
	GW-GZ-105-43BGS-0813	45	0.6	<1	27	
	GW-GZ-105-48BGS-0813	50	1.4	<1	23	
Bottom of Screen Interval		52				

NOTES:
1. ug/L = micrograms per liter (parts per billion)
2. < = parameter concentration below detection limit indicated

TABLE 5

Summary of Analytical Results for Off-Site Water Supply Wells
August 2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	R-3	R-3	R-3	R-3	R-3	R-3	R-3	R-3-DUP	R-3	R-3-DUP
DATE SAMPLED	24-Jan-08	13-Aug-08	19-Aug-09	17-Aug-10	18-Aug-11	30-Aug-12	26-Mar-13	26-Mar-13	16-Aug-13	16-Aug-13
VOLATILE ORGANIC COMPOUNDS										
Methyl tert-butyl ether (ug/L)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
1,4-dioxane (ug/L)	NA	NA	NA	NA	NA	0.40	0.45	0.26	0.45	0.41
FIELD PARAMETERS										
Temperature (degrees Celcius)	13.51	12.51	11.38	12.58	12.62	12.73	NM	NM	13	13
pH (standard units)	5.63	5.85	7.92	7.14	8.08	8.54	NM	NM	7	7
Conductivity (uS/cm)	316	423	452	443	238	466	NM	NM	414	414
Dissolved Oxygen (mg/L)	4.16	3.72	4.64	2.19	4.65	4.98	NM	NM	<0.5	<0.5
Turbidity (NTU)	2.0	15.4	2.2	0.5	1.04	0.70	NM	NM	6	6
Oxidation/Reduction Potential (mV)	157	95	-122	-35	-164.5	22.5	NM	NM	-224	-224

SAMPLE IDENTIFICATION	R-5	R-5	R-5	R-5
DATE SAMPLED	24-Jan-08	13-Aug-08	19-Aug-09	19-Aug-10
VOLATILE ORGANIC COMPOUNDS				
Methyl tert-butyl ether (ug/L)	<0.5	<0.5	<0.5	<0.5
1,4-dioxane (ug/L)	NA	NA	NA	NA
FIELD PARAMETERS				
Temperature (degrees Celcius)	14	14	17	19
pH (standard units)	5.8	5.9	6.7	6.0
Conductivity (uS/cm)	243	281	456	222
Dissolved Oxygen (mg/L)	6.4	8.0	6.8	5.5
Turbidity (NTU)	1.4	12.0	2.0	0.2
Oxidation/Reduction Potential (mV)	162	87	194	146

SAMPLE IDENTIFICATION	346BHR	346BHR
DATE SAMPLED	30-Aug-12	16-Aug-13
VOLATILE ORGANIC COMPOUNDS		
Methyl tert-butyl ether (ug/L)	<0.5	<0.5
1,4-dioxane (ug/L)	<0.25	<0.25
FIELD PARAMETERS		
Temperature (degrees Celcius)	13	NM
pH (standard units)	7.3	NM
Conductivity (uS/cm)	606	NM
Dissolved Oxygen (mg/L)	6.4	NM
Turbidity (NTU)	18	NM
Oxidation/Reduction Potential (mV)	76	NM

SAMPLE IDENTIFICATION	339BHR	339BHR
DATE SAMPLED	29-Apr-13	16-Aug-13
VOLATILE ORGANIC COMPOUNDS		
Methyl tert-butyl ether (ug/L)	NA	<0.5
1,4-dioxane (ug/L)	0.38	0.42
FIELD PARAMETERS		
Temperature (degrees Celcius)	NM	NM
pH (standard units)	NM	NM
Conductivity (uS/cm)	NM	NM
Dissolved Oxygen (mg/L)	NM	NM
Turbidity (NTU)	NM	NM
Oxidation/Reduction Potential (mV)	NM	NM

SAMPLE IDENTIFICATION	415BHR	415BHR
DATE SAMPLED	16-Apr-13	16-Aug-13
VOLATILE ORGANIC COMPOUNDS		
Methyl tert-butyl ether (ug/L)	NA	<0.5
1,4-dioxane (ug/L)	<0.25	<0.25
FIELD PARAMETERS		
Temperature (degrees Celcius)	NM	13
pH (standard units)	NM	8.1
Conductivity (uS/cm)	NM	351
Dissolved Oxygen (mg/L)	NM	0.6
Turbidity (NTU)	NM	< 5
Oxidation/Reduction Potential (mV)	NM	-188

TABLE NOTES:

1. R-5 not sampled since Aug. 19, 2010 due to the water system being out of service.
2. Field parameter measurements prior to Aug. 2013 were not collected with a flow cell directly connected to the sampling tap; therefore, dissolved oxygen and oxidation reduction potential measurements may be biased high due to exposure to the atmosphere.
3. Only analtyes detected in one or more groundwater samples at water supply wells are listed in this table.
4. The NHDES Ambient Groundwater Quality Standard for 1,4-dioxane is 3 ug/L. The EPA has not established an Interim Cleanup Level for 1,4-dioxane.

TABLE ABBREVIATIONS:

NA = Not Analyzed
NM = Not Measured
uS/cm = microsiemens per centimeter
ug/L = micrograms per liter (parts per billion)
mg/L = milligrams per liter (parts per million)
NTU - Nephelometric Turbidity Units
mV = millivolts
< = parameter concentration below detection limit indicated
R-3-DUP = duplicate sample collected at R-3

TABLE 6

Summary of Leachate Analytical Results
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES SURFACE		L-1	L-1	L-1	L-1	L-1	L-1	L-1		L-1	L-1	L-1	L-1	L-1	L-1	L-1-DUP
DATE SAMPLED	WATER STANDARDS		16-Aug-01	7-Aug-02	27-Aug-03	25-Aug-04	25-Aug-05	30-Nov-06	13-Nov-07		12-Aug-08	19-Aug-09	17-Aug-10	19-Aug-11	30-Aug-12	14-Aug-13	14-Aug-13
COMMENTS	ACUTE	CHRONIC						ID 104240									
PARAMETER ANALYZED																	
VOLATILE ORGANIC COMPOUNDS (ug/L)																	
Benzene	5300	NSE	3	2	2	BDL	2	2	3		BDL	1.9	2	2.0	2	2	2
Chlorobenzene	250	50	27	15	18	12	20	18	22		BDL	20	24	18	15	13	14
Chloroethane	NSE	NSE	8	6	6	3	6	BDL	6		BDL	4.4	BDL	4.1	BDL	BDL	BDL
Chloroform	28.9	1240	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4 Dichlorobenzene (See Note 5)	1120	763	BDL	3	2	BDL	3	2	3		BDL	2.5	3	2.3	2	2	2
1,2 Dichlorobenzene (See Note 5)			BDL	BDL	BDL	BDL	BDL	BDL	1		BDL	1.1	2	1.2	1	BDL	BDL
Isopropylbenzene	NSE	NSE	BDL	BDL	BDL	BDL	BDL	2	2		BDL	1.5	2	1.6	1	1	1
Diethyl Ether	NSE	NSE	31	BDL	BDL	BDL	BDL	BDL	23		BDL	13	15	12	10	10	10
Naphthalene	2300	620	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	0.6	BDL	BDL	BDL	BDL	BDL
Tetrahydrofuran	NSE	NSE	32	BDL	BDL	BDL	BDL	BDL	20		BDL	12	10	13	BDL	BDL	BDL
Toluene	NSE	NSE	BDL	BDL	BDL	BDL	BDL	BDL					1	BDL	BDL	BDL	BDL
1,4-Dioxane	NSE	NSE	NA	NA	NA	NA	NA	NA	NA		NA	26	20	25	28	22	24
METALS (ug/L)			Total	Total	Total	Total	Total		Total	Dissolved	Total	Total	Total	Total	Total	Total	Total
Aluminum	750	87	**3200**	**4100**	**9,500**	**29,000**	**18,000**	NA	BDL	BDL	170	BDL	BDL	BDL	BDL	BDL	80
Antimony	9,000	1,600	6	BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	340	150	83	23	67	150	300	NA	7	6	4	4	7	6	4	5	7
Barium	NSE	NSE	1300	260	610	2200	4600	NA	97	99	11	100	100	97	87	92	110
Beryllium	130	5.3	3	BDL	BDL	3	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	0.95	0.80	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Calcium	NSE	NSE	120,000	97,000	100,000	140,000	150,000	NA	50,000	62,000	20,000	64,000	71,000	63,000	79,000	56,000	57,000
Chromium	183	24	20	13	27	55	70	NA	BDL	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL
Cobalt	NSE	NSE	BDL	3	6	11	10	NA	BDL	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	**3.6**	2.7	BDL	**5**	**13**	**36**	**40**	NA	BDL	1	**8**	BDL	BDL	1	BDL	BDL	BDL
Iron	NSE	1,000	350,000	130,000	330,000	1,000,000	1,100,000	NA	30,000	27,000	1,200	35,000	34,000	31,000	31,000	35,000	45,000
Lead	14	0.54	BDL	2	8	**34**	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium	NSE	NSE	49,000	43,000	36,000	34,000	43,000	NA	20,000	25,000	2,500	25,000	21,000	21,000	20,000	16,000	16,000
Manganese	NSE	NSE	7,600	5,700	5,900	10,000	9,800	NA	2,700	3,200	98	3,200	2,900	2,700	3,300	2,500	2,500
Mercury	1.4	0.77	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	144.9	16.1	22	18	28	32	40	NA	7	8	3	7	6	4	6	5	5
Potassium	NSE	NSE	66	55	46,000	38,000	50,000	NA	34,000	40	7,800	37,000	33,000	30,000	31,000	25,000	27,000
Selenium	NSE	5	7	8	4	3	BDL	NA	BDL	BDL	BDL	BDL	2	2	5	5	5
Silver	0.32	NSE	BDL	BDL (2)	**2**	BDL	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sodium	NSE	NSE	220,000	200,000	160,000	140,000	150,000	NA	130,000	150,000	BDL	100,000	110,000	91,000	100,000	78,000	76,000
Thallium	1,400	40	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium	NSE	NSE	46	13	36	89	220	NA	1	1	2	2	1	BDL	BDL	BDL	BDL
Zinc	36.2	36.5	**45**	**51**	**140**	**390**	**690**	NA	BDL	**650**	**56**	12	6	BDL	BDL	BDL	10
Chemical Oxygen Demand (mg/l)	NSE	NSE	190	178	560	282	377	NA	70		50	50	54	40	44	52	68
Ammonia-N (mg/l)	36.1	5.91	**44.0**	**41.0**	**44.8**	**56.8**	**79.0**	NA	33		0.62	21	22	25	24	21	19
FIELD PARAMETERS																	
Temperature (degrees Celcius)									12		18	14	16	15	16	15	15
Ph (standard units)									6.2		6.6	6.4	6.6	5.1	6.6	6.3	6.3
Conductivity (us/cm)									1,600		176	1,459	1,500	821	1,399	1,220	1,220
Dissolved Oxygen (mg/l)									2.2		4.9	1.3	0.6	3.4	2.3	2.3	2.3
Turbidity (NTU)									18		90	10	9	2	17	144	144
Oxidation/Reduction Potential (mV)									138		42	-38	-99	-73.1	-76.0	-102.0	-102.0

NOTES:

1. BDL = Below Detection Limit; NA = Not Analyzed
2. NSE indicates no standard has been established for the indicated parameter.
3. Only contaminants detected in one or more leachate samples are listed in this table.
4. NHDES Surface Water Standard are listed in Env Wq 1800
5. Acute and chronic standards based on total dichlorobenzenes
6. Ammonia-N standard is based on pH of 7.0 at 14 C, salinoids not present.
7. A **bold** entry indicates the parameter exceeded the acute surface water standard.
8. Shaded values indicate the parameter exceeded the chronic surface water standard.
9. **Bold** and shaded values indicate exceedances of both NHDES acute and chronic criteria.
10. Volatile organic compounds and metals results are in micrograms per liter (µg/l).

Table 7
Duplicate Sample Comparison
Coakley Landfill
North Hampton, New Hampshire

MW-4 Samples Collected August 13, 2013 Bailer Method Duplicate Sample	Sample Identification in Lab Report GW-MW-4-0813 Lab Sample ID: 123528.02		 GW-MW-4-DUP-0813 Lab Sample ID: 123528.03		
Analyte	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Relative % Difference**
Volatile Organic Compounds (Detections only)					
1,4-Dioxane	4.6	0.25	4.8	0.25	4%
Total Metals					
Aluminum	690	50	850	50	21%
Antimony	BDL	1	BDL	1	Not Determined
Arsenic	53	1	53	1	0%
Barium	70	1	70	1	0%
Beryllium	BDL	1	BDL	1	Not Determined
Cadmium	BDL	1	BDL	1	Not Determined
Calcium	55000	50	56000	50	2%
Chromium	3	1	4	1	Not Determined
Cobalt	4	1	4	1	0%
Copper	4	1	4	1	0%
Iron	21000	50	21000	50	0%
Lead	2	1	2	1	0%
Magnesium	15000	50	15000	50	0%
Manganese	970	5	960	5	1%
Mercury	BDL	0.1	BDL	0.1	Not Determined
Nickel	8	1	9	1	12%
Potassium	24000	50	25000	50	4%
Selenium	2	1	2	1	0%
Silver	BDL	1	BDL	1	Not Determined
Sodium	20000	5000	20000	5000	0%
Thallium	BDL	1	BDL	1	Not Determined
Vanadium	BDL	5	BDL	5	Not Determined
Zinc	8	5	9	5	Not Determined

MW-8-54BGS Samples Collected August 13, 2013 Discrete Interval Method Duplicate Sample	Sample Identification in Lab Report GW-MW-8-54BGS-0813 Lab Sample ID: 123529.21		 GW-MW-8-54BGS-DUP-0813 Lab Sample ID: 123529.22		
Analyte	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Relative % Difference**
Volatile Organic Compounds (Detections only)					
1,4-Dioxane	240	25	250	25	4%
Total Metals					
Arsenic	13	1	12	1	8%
Manganese	1300	5	1200	5	8%

Table 7
Duplicate Sample Comparison
Coakley Landfill
North Hampton, New Hampshire

FPC-6A Samples Collected August 19, 2013 Low Flow Method Duplicate Sample	Sample Identification in Lab Report GW-FPC-6A-0813 Lab Sample ID: 123739.14, 123704.02		 GW-FPC-6A-DUP-0813 Lab Sample ID: 123739.13, 123704.03		
Analyte	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Relative % Difference**
Volatile Organic Compounds (Detections only)					
Chlorobenzene	3	2	3	2	Not Determined
Diethyl Ether	12	5	12	5	Not Determined
1,4-Dioxane	4.6	0.25	4.8	0.25	4%
Total Metals					
Aluminum	BDL	50	BDL	50	Not Determined
Antimony	BDL	1	BDL	1	Not Determined
Arsenic	18	1	18	1	0%
Barium	37	1	36	1	3%
Beryllium	BDL	1	BDL	1	Not Determined
Cadmium	BDL	1	BDL	1	Not Determined
Calcium	28000	50	27000	50	4%
Chromium	BDL	1	BDL	1	Not Determined
Cobalt	6	1	6	1	0%
Copper	BDL	1	BDL	1	Not Determined
Iron	2700	50	2600	50	4%
Lead	BDL	1	BDL	1	Not Determined
Magnesium	12000	50	12000	50	0%
Manganese	2300	5	2200	5	4%
Mercury	BDL	0.1	BDL	0.1	Not Determined
Nickel	5	1	4	1	Not Determined
Potassium	6900	50	6600	50	4%
Selenium	3	1	3	1	0%
Silver	BDL	1	BDL	1	Not Determined
Sodium	82000	5000	81000	5000	1%
Thallium	BDL	1	BDL	1	Not Determined
Vanadium	BDL	5	BDL	5	Not Determined
Zinc	BDL	5	BDL	5	Not Determined

R-3 Samples Collected August 19, 2013 Water Supply Well Method Duplicate Sample	Sample Identification in Lab Report DW-R-3-0813 Lab Sample ID: 123705.05		 DW-R-3-DUP-0813 Lab Sample ID: 123705.06		
Analyte	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Relative % Difference**
Volatile Organic Compounds (Detections only)					
1,4-Dioxane	0.45	0.25	0.41	0.25	Not Determined

Table 7
Duplicate Sample Comparison
Coakley Landfill
North Hampton, New Hampshire

L-1 Samples Collected August 14, 2013 Leachate Duplicate Sample	Sample Identification in Lab Report LC-L-1-0813 Lab Sample ID: 123649.01		 LC-L-1-DUP-0813 Lab Sample ID: 123649.02		
Analyte	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Result (ug/L)**	**Reporting Limit (ug/L)**	**Relative % Difference**
Volatile Organic Compounds (Detections only)					
Benzene	2	1	2	1	Not Determined
Chlorobenzene	13	2	14	2	7%
1,4-Dichlorobenzene	2	1	2	1	Not Determined
Isopropylbenzene	1	1	1	1	0%
Diethyl Ether	10	5	10	5	Not Determined
1,4-Dioxane	22	2.5	24	2.5	9%
General Chemistry					
Chemical Oxygen Demand (mg/L)	52	10	68	10	27%
Ammonia (mg/L)	21	0.05	19	0.05	10%
Total Metals					
Aluminum	BDL	50	80	50	Not Determined
Antimony	BDL	1	BDL	1	Not Determined
Arsenic	5	1	7	1	Not Determined
Barium	92	1	110	1	18%
Beryllium	BDL	1	BDL	1	Not Determined
Cadmium	BDL	1	BDL	1	Not Determined
Calcium	56000	50	57000	50	2%
Chromium	BDL	1	BDL	1	Not Determined
Cobalt	BDL	1	BDL	1	Not Determined
Copper	BDL	1	BDL	1	Not Determined
Iron	35000	50	45000	50	25%
Lead	BDL	1	BDL	1	Not Determined
Magnesium	16000	50	16000	50	0%
Manganese	2500	5	2500	5	0%
Mercury	BDL	0.1	BDL	0.1	Not Determined
Nickel	5	1	5	1	0%
Potassium	25000	50	27000	50	8%
Selenium	5	1	5	1	0%
Silver	BDL	1	BDL	1	Not Determined
Sodium	78000	5000	76000	5000	3%
Thallium	BDL	1	BDL	1	Not Determined
Vanadium	BDL	5	BDL	5	Not Determined
Zinc	BDL	5	10	5	Not Determined

Notes:

1. All values in micrograms per liter (ug/L), with the exception of General Chemistry parameters for leachate sampling location L-1
2. Relative % difference (RPD) is calculated by dividing the absolute value of the difference between the two values by the average of the two values
3. RPDs were calculated only when both sample and duplicate values were greater than 5 times the practical quantitation limit (PQL) of the analyte.
4. Reporting limits for 1,4-dioxane were determined by mulitplying the method detection limit (0.25 ug/L) by the dilution factor listed.
4. BDL = below detection/reporting limit

APPENDIX A

Environmental Monitoring Plan Sampling Requirements Tables

TABLE A (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
PERISTALTIC INTERVAL SAMPLING (AUGUST 2013 SAMPLING EVENT)

Site ID	Well Diameter (inches)	Monitored Zone - Unit	Screened Interval feet bgs	Screen Interval Length (feet)	Discrete Interval Sampling Depths (feet bgs)	August 2012 - Depth to Water Level from Measuring Point (Top of Casing)	QA/QC Samples
Operating Unit 1 Wells							
MW-11	2	Bedrock - Shallow	32-52	20	37, 42, 47	12.34	
MW-5D	2	Bedrock - Deeper	139-159	20	144, 149, 154	11.47	
MW-5S	2	Bedrock - Shallow	48-78	30	53, 58, 63, 68, 73	12.94	
MW-8	2	Bedrock - Shallow	44-64	20	49, 54, 59	9.32	Duplicate at 54' bgs, Field Blank, Equipment Blank (See Table 2-2)
Operating Unit 2 Wells							
AE-3B	2	Bedrock - Shallow	28-40	12	26, 32, 38	9.80	
FPC-4B	2	Bedrock - Shallow	18-33	15	20, 26, 31	6.32	
FPC-5B	2	Bedrock - Shallow	95-110	15	97, 103, 108	1.95	
FPC-6B	2	Bedrock - Shallow	13-28	15	15, 21, 26	6.04	
FPC-7B	2	Bedrock - Shallow	29.8-44.8	15	32, 38, 43	2.38	
FPC-8B	2	Bedrock - Shallow	40-55	15	42, 48, 53	2.44	
FPC-11B	2	Bedrock - Shallow	58-73	15	60, 66, 71	21.53	
GZ-105	1.5	Bedrock - Shallow	35-50	15	37, 43, 48	4.13	

Notes:

1. * = value is assumed.
2. ft bgs = feet below ground surface
3. At least 72 hours prior to sampling, well depths will be confirmed and LDPE sample tubing will be install.
4. Sampling will be conducted in accordance with the SOP #4 - Groundwater Sampling - Peristaltic Pump Interval Sampling
5. All samples will be submitted for analysis of total arsenic, total manganese and 1,4-dioxane. 1,4-dioxane will be analyzed using the low detection limit methodolgy specified in the April 2010 EMP/QAPP.

TABLE 2-1 (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
GROUNDWATER QUALITY MONITORING NETWORK WELL CONSTRUCTION AND WATER LEVEL DETAILS

Site ID	Date Constructed	Total Boring Depth (ft bgs)	Well Diameter (inches)	Monitored Zone - Unit	Screened Interval ft bgs	Measuring Point Elevation (ft NGVD)	Low Water Level (ft NGVD)	High Water Level (ft NGVD)	Depth Tubing Intake (ft bgs)
Operating Unit 1 Wells									
BP-4	5/17/1993	99	6	Bedrock - Open Borehole	33.6-99.0	111.70	95.26	99.55	49
MW-10	4/15/1996	10.4	2	Overburden - Outwash	5-10	80.60	72.78	75.46	7.5
MW-11	4/26/1996	52	2	Bedrock - Shallow	32-52	92.70	79.17	87.21	**TBD**
MW-4	6/14/1985	38	2	Overburden - Outwash	28-38	129.12	95.94	101.52	33
MW-5D	6/22/1993	163.5	2	Bedrock - Deeper	139-159	98.39	85.84	90.39	**TBD**
MW-5S	8/9/1993	150	2	Bedrock - Shallow	48-78	98.42	84.27	93.69	**TBD**
MW-6	6/19/1985	184	6	Bedrock - Open Borehole	25-184	101.15	88.03	93.84	150
MW-8	4/25/1996	65	2	Bedrock - Shallow	44-64	85.30	75.32	81.1	**TBD**
MW-9	4/15/1996	12	2	Overburden - Outwash	5-10	82.62	73.28	78.03	7.5
OP-2	5/7/1993	12.5	1.25	Overburden - Outwash	7-12	98.49	85.74	95.86	9.5
OP-5	6/11/1993	23.2	1.25	Overburden - Outwash	13-23	112.68	94.92	107.29	18
Operating Unit 2 Wells									
AE-1A	3/26/1999	65	2	Overburden - Till	54-64	127.00	95.55	99.67	59
AE-1B	3/25/1999	85.5	2	Bedrock - Shallow	75-85	126.80	95.51	99.65	79
AE-2A	7/27/1999	23.1	2	Overburden - Till	10-20	79.60	72.49	76.03	15
AE-2B	7/27/1999	50	2	Bedrock - Shallow	40-50	79.50	72.59	76.04	45
AE-3A	3/24/1999	17.8	2	Overburden - Till	??-17.5	86.10	76.3	78.68	12.5
AE-3B	3/23/1999	40	2	Bedrock - Shallow	28-40	87.30	76.86	78.84	**TBD**
AE-4A	9/15/2003	15	2	Overburden - Outwash	5-15	77.20	70.75	73.75	10
AE-4B	9/16/2003	44	2	Bedrock - Shallow	34-44	77.50	70.51	73.61	39
FPC-2A**	4/3/1992	16	2	Overburden - Outwash	6-16	78.40	75.41	78.4	11
FPC-2B**	4/3/1992	37.8	2	Bedrock - Shallow	22.5-37.5	77.98	74.94	77.78	30
FPC-4B	6/3/1992	33.5	2	Bedrock - Shallow	18-33	75.83	68.21	71.83	**TBD**
FPC-5A	3/17/1992	70	2	Overburden - Till	54-64	74.30	72.05	75.01	59
FPC-5B	5/14/1992	110.3	2	Bedrock - Shallow	95-110	74.90	70.96	74.85	**TBD**
FPC-6A	5/19/1992	2.8	1.5	Overburden - Outwash	1.75-2.75	77.00	68.57	73.23	2.3
FPC-6B	3/24/1992	28.5	2	Bedrock - Shallow	13-28	77.10	68.37	73.21	**TBD**
FPC-7A	5/11/1992	22	2	Overburden - Till	16.7-21.7	82.08	80.03	81.63	19.2
FPC-7B	5/8/1992	45	2	Bedrock - Shallow	29.8-44.8	82.33	79.43	81.2	**TBD**
FPC-8A	4/9/1992	33	2	Overburden - Till	23-33	73.80	69.23	73.85	28
FPC-8B	4/8/1992	55.7	2	Bedrock - Shallow	40-55	73.60	69.14	73.52	**TBD**
FPC-9A	5/28/1992	68	2	Overburden - Till	58-68	117.57	95.02	99.87	63
FPC-11A	6/23/1992	52	2	Overburden - Till	47-52	117.95	95.81	100.4	49.5
FPC-11B	6/19/1992	73	2	Bedrock - Shallow	58-73	117.90	95.54	97.89	**TBD**
FPC-11C***	6/24/1992	33	2	Overburden - Outwash	18-33	118.04	96.58	100.58	25.5
GZ-105	5/7/1987	51	1.5	Bedrock - Shallow	35-50	73.60	66.42	71.16	**TBD**
GZ-123**	2/25/1987	16.5	2	Overburden - Outwash	9.5-16.5	87.49	76.91	78.28	13
GZ-125**	4/13/1987	200	6	Bedrock - Open Borehole	57-200	88.77	80.07	81.87	72

Notes:

1. Water level highs and lows based on data taken between April 1993 and August 2012 and reported in the 2012 Annual Monitoring Report prepared by Provan and Lorber, Inc. (February 7, 2013). Water levels were not taken in every well at every event.
2. ft bgs = feet below ground surface
3. ft NGVD = feet National Geodetic Vertical Datum (datum listed on 2000 Aries Engineering monitoring report)
4. All wells listed are sampled in Fall during annual long-term monitoring events
5. Depth of tubing intake at wells BP-4 and MW-6 is based upon discrete interval sampling results reported in 2010 Annual Report. Tubing intake depths consistent with tubing intakes depths used in 2011 and 2012 long-term monitoring events.
6. ** - well not sampled beginning in August 2013. Depth to water level collected in accordance with Table 2-4.
7. *** - FPC-11C was last sampled in April 1999 and water level elevation measurements are based on data from 4/1993, 4/1999, 8/2003 and 8/2012.
8. Monitored Zone - Unit column identifies the hydrogeological unit within the screened/open interval. The hydrogeology of the site is comprised of four principle geological units include including bedrock, glacial till, marine sediments consisting of predominately of silt and clay and sandy outwash. Bedrock well screened intervals vary as follows: "Bedrock - Open Borehole" wells are standard 6-inch diameter wells with steel casing set in bedrock and open boreholes (no PVC screen in wells - typical water supply well construction). "Bedrock - Shallow" indicates the screen interval is the upper most section of bedrock. "Bedrock - Deeper" is used to differentiate a screened interval that is below the uppermost section of bedrock (i.e.; MW-5S versus MW-5D).
9. TBD: To Be Detemined, wells with screen lengths >10 feet were interval sampled in August 2013. Depth of tubing intakes for future sampling rounds will be based on interval sampling results.

TABLE 2-2 (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
OU-1 GROUNDWATER MONITORING WELLS AND WATER SUPPLY WELLS
ANALYTICAL PARAMETERS AND SAMPLING FREQUENCY

	Monitoring Wells											Water Supply Wells **(See Notes #5 & #6)**				
Sampling Point	MW-4	MW-5S	MW-5D	MW-6	MW-8	MW-9	MW-10	MW-11	BP-4	OP-2	OP-5	R-3	R-5	346BHR	339BHR	415BHR
Field Parameters																
Static Water Level	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Turbidity	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Specific Conductance	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Temperature	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
pH	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Oxidation Reduction Potential	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Dissolved Oxygen	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
TAL Metals (Total - unfiltered)																
Aluminum	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Arsenic	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Barium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Cadmium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Calcium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Chromium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Copper	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Iron	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Lead	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Magnesium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Mercury	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Nickel	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Potassium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Selenium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Silver	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Sodium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Thallium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Zinc	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Cobalt	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Beryllium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Manganese	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Antimony	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Vanadium	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	N/A
Volatile Organic Compounds																
NHDES Full List (EPA Method 8260B)	N/A	A	A	A	A	N/A	N/A	A	N/A	N/A	N/A					
NHDES Full List (EPA Method 524)												A	A	A	A	A
1,4-dioxane **(See Note #4)**	A	A	A	A	A	A	N/A	A	A	A	N/A	SA	A	A	SA	A
Quality Assurance / Quality Control (QA/QC)																
Matrix Spike / Matrix Spike Duplicate (MS/MSD)																
Duplicate	X				X							X				
Field Blank **(See Note #6)**					X									X		
Equipment Blank **(See Note #6)**					X									X		
Sampling Methodology																
Low Flow with Peristaltic Pump (SOP #3)		X	X	X	X	X	X	X	X	X	X					
Peristaltic Interval Sampling (SOP #4) - **See Note #7**		X	X		X			X								
Grab Sampling with Peristaltic Pump (SOP #7)																
Bailer (Disposable) - (SOP #5)	X															
Water Supply Well - (SOP#6)												X	X	X	X	X

Notes:

1. A = Annual (Fall Event)
2. SA = Semi-Annual (Spring and Fall Event), Spring event include sampling of water supply wells for analysis of 1,4-dioxane only
3. N/A = Not Analyzed
4. Samples collected for analysis of "low level" 1,4-dioxane will be analyzed using EPA Method 8260B SIM, in accordance with the 2010 Project Operation Plan (Golder, 2010). The Coakley Landfill Group, USEPA and NHDES shall determine whether analysis of 1,4-dioxane is required at monitoring points after 2013.
5. R-3 serves a residence at 368 Breakfast Hill Road. Sample is collected from the exterior spigot behind bushes on east side (driveway) side of home.
   R-5 serves a residence at 399 Breakfast Hill Road. The residence is condemned (as of April 2013) and the water system is out of service. R-5 was last sampled in 2009. Well will be sampled if possible.
   346BHR serves a residence at 346 Breakfast Hill Road. The sample is collected from the spigot on the pressure tank in the building basement.
   339BHR is a public well serving the Breakfast Hill Golf Club clubhouse located at 339 Breakfast Hill Road. The sample is collected from the sqigot on the pressure tank in the maintenance garage.
   415BHR serves a residence at 415 Breakfast Hill Road. Sample is collected from the exterior spigot located on the east side (driveway) side of home.
6. Equipment Blank for Monitoring Wells will be completed on a decontaminated depth to water level meter after the well is sampled and the water level meter is decontaminated according to Decontamination SOP (all tubing is dedicated, all bailers are disposable).
   Equipment Blank for Water Supply Wells will be completed for the decontaminated brass sampling apparatus prior to any water supply well sampling.
   Field Blank is source water used for decontamination and rinsate of samples.
7. Peristaltic Interval Sampling at selected wells to be completed in August 2013, in accordance with Table A.

TABLE 2-3 (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
OU-2 GROUNDWATER MONITORING WELLS
ANALYTICAL PARAMETERS AND SAMPLING FREQUENCY

	Monitoring Wells																				
Sampling Point	FPC-4B	FPC-5A	FPC-5B	FPC-6A	FPC-6B	FPC-7A	FPC-7B	FPC-8A	FPC -8B	FPC-9A	FPC-11A	FPC-11B	GZ-105	AE-1A	AE-1B	AE-2A	AE-2B	AE-3A	AE-3B	AE-4A	AE-4B
Field Parameters																					
Static Water Level	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Turbidity	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Specific Conductance	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Temperature	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
pH	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Oxidation Reduction Potential	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Dissolved Oxygen	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
TAL Metals (Total - unfiltered)																					
Aluminum	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Arsenic	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Barium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Cadmium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Calcium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Chromium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Iron	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Lead	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Mercury	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Nickel	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Potassium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Selenium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Silver	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Thallium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Zinc	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Cobalt	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Beryllium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Manganese	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Antimony	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Vanadium	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Volatile Organic Compounds																					
NHDES Full List (EPA Method 8260B)	A	N/A	N/A	A	A	N/A	N/A	A	A	N/A	N/A	N/A	A	N/A	N/A	A	A	A	A	A	A
1,4-dioxane **(See Note #3)**	N/A	A	A	A	A	N/A	N/A	A	A	N/A	N/A	N/A	A	N/A	N/A	A	A	A	A	N/A	N/A
Quality Assurance / Quality Control (QA/QC)																					
Matrix Spike / Matrix Spike Duplicate (MS/MSD)				X														X			
Duplicate				X																	
Field Blank **(See Note #4)**																					
Equipment Blank **(See Note #4)**																					
Sampling Methodology																					
Low Flow with Peristaltic Pump (SOP #3)	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Peristaltic Interval Sampling (SOP #4) - **See Note #5**	X		X		X		X		X			X	X						X		
Grab Sampling with Peristaltic Pump (SOP #7)																					
Bailer (Disposable) - (SOP #5)														X	X						

Notes:
1. A = Annual (Fall Event)
2. N/A = Not Analyzed
3. Samples collected for analysis of "low level" 1,4-dioxane will be analyzed using EPA Method 8260B SIM, in accordance with the 2010 Project Operation Plan (Golder, 2010).
   The Coakley Landfill Group, USEPA and NHDES shall determine whether analysis of 1,4-dioxane is required at monitoring points after 2013.
4. Equipment Blank for Monitoring Wells will be completed on a decontaminated depth to water level meter after the well is sampled and the water level meter is decontaminated according to Decontamination SOP (all tubing is dedicated, all bailers are disposable).
   Field Blank is source water used for decontamination and rinsate of samples.
5. Peristaltic Interval Sampling at selected wells to be completed in August 2013, in accordance with Table A.

TABLE 2-4 (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
GROUNDWATER ELEVATION MONITORING NETWORK AND SCHEDULE

Site ID	Monitored Zone - Unit	Screened Interval Feet Below Ground Surface	Measuring Point Elevation (ft NGVD)	Monitoring Frequency
Operating Unit 1 Wells				
BP-4	Bedrock - Open Borehole	33.6-99.0	111.70	Annual
MW-10	Overburden - Outwash	5-10	80.60	Annual
MW-11	Bedrock - Shallow	32-52	92.70	Annual
MW-2	Overburden - Outwash	10-20	94.54	Annual
MW-4	Overburden - Outwash	28-38	129.12	Annual
MW-5D	Bedrock - Deeper	139-159	98.39	Annual
MW-5S	Bedrock - Shallow	48-78	98.42	Annual
MW-6	Bedrock - Open Borehole	25-184	101.15	Annual
MW-8	Bedrock - Shallow	44-64	85.30	Annual
MW-9	Overburden - Outwash	5-10	82.62	Annual
OP-2	Overburden - Outwash	7-12	98.49	Annual
OP-5	Overburden - Outwash	13-23	112.68	Annual
Operating Unit 2 Wells				
AE-1A	Overburden - Till	54-64	127.00	Annual
AE-1B	Bedrock - Shallow	75-85	126.80	Annual
AE-2A	Overburden - Till	10-20	79.60	Annual
AE-2B	Bedrock - Shallow	40-50	79.50	Annual
AE-3A	Overburden - Till	??-17.5	86.10	Annual
AE-3B	Bedrock - Shallow	28-40	87.30	Annual
AE-4A	Overburden - Outwash	5-15	77.20	Annual
AE-4B	Bedrock - Shallow	34-44	77.50	Annual
FPC-2A	Overburden - Outwash	6-16	78.40	Annual
FPC-2B	Bedrock - Shallow	22.5-37.5	77.98	Annual
FPC-4B	Bedrock - Shallow	18-33	75.83	Annual
FPC-5A	Overburden - Till	54-64	74.30	Annual
FPC-5B	Bedrock - Shallow	95-110	74.90	Annual
FPC-6A	Overburden - Outwash	1.75-2.75	77.00	Annual
FPC-6B	Bedrock - Shallow	13-28	77.10	Annual
FPC-7A	Overburden - Till	16.7-21.7	82.08	Annual
FPC-7B	Bedrock - Shallow	29.8-44.8	82.33	Annual
FPC-8A	Overburden - Till	23-33	73.80	Annual
FPC-8B	Bedrock - Shallow	40-55	73.60	Annual
FPC-9A	Overburden - Till	58-68	117.57	Annual
FPC-9B	Bedrock - Shallow	72-87	117.87	Annual
FPC-9C	Overburden - Outwash	15-25	117.75	Annual
FPC-11A	Overburden - Till	47-52	117.95	Annual
FPC-11B	Bedrock - Shallow	58-73	117.90	Annual
FPC-11C	Overburden - Outwash	18-33	118.04	Annual
GZ-105	Bedrock - Shallow	35-50	73.60	Annual
GZ-123	Overburden - Outwash	9.5-16.5	87.49	Annual
GZ-125	Bedrock - Open Borehole	57-200	88.77	Annual

Notes
1. ft NGVD = feet National Geodetic Vertical Datum (datum listed on 2000 Aries Engineering monitoring report)

TABLE 2-5 (ADDENDUM JULY 2013 REVISION 2.0)
COAKLEY LANDFILL SUPERFUND SITE
SURFACE WATER AND SEDIMENT MONITORING NETWORK
ANALYTICAL PARAMETERS AND SAMPLING FREQUENCY

	Surface Water			Sediment		Leachate
Sampling Point	SW-4	SW-5	SW-103	SED-4	SED-5	L-1
Field Parameters						
Turbidity	A	A	A	N/A	N/A	A
Specific Conductance	A	A	A	N/A	N/A	A
Temperature	A	A	A	N/A	N/A	A
pH	A	A	A	N/A	N/A	A
Oxidation Reduction Potential	A	A	A	N/A	N/A	A
Dissolved Oxygen	A	A	A	N/A	N/A	A
Inorganic Parameters						
Chemical Oxygen Demand	N/A	N/A	N/A	N/A	N/A	A
Ammonia	A	A	A	N/A	N/A	A
TAL Metals (Total - unfiltered)						
Aluminum	A	A	A	5-YR	5-YR	A
Arsenic	A	A	A	5-YR	5-YR	A
Barium	A	A	A	5-YR	5-YR	A
Cadmium	A	A	A	5-YR	5-YR	A
Calcium	A	A	A	5-YR	5-YR	A
Chromium	A	A	A	5-YR	5-YR	A
Copper	A	A	A	5-YR	5-YR	A
Iron	A	A	A	5-YR	5-YR	A
Lead	A	A	A	5-YR	5-YR	A
Magnesium	A	A	A	5-YR	5-YR	A
Mercury	A	A	A	5-YR	5-YR	A
Nickel	A	A	A	5-YR	5-YR	A
Potassium	A	A	A	5-YR	5-YR	A
Selenium	A	A	A	5-YR	5-YR	A
Silver	A	A	A	5-YR	5-YR	A
Sodium	A	A	A	5-YR	5-YR	A
Thallium	A	A	A	5-YR	5-YR	A
Zinc	A	A	A	5-YR	5-YR	A
Cobalt	A	A	A	5-YR	5-YR	A
Beryllium	A	A	A	5-YR	5-YR	A
Manganese	A	A	A	5-YR	5-YR	A
Antimony	A	A	A	5-YR	5-YR	A
Vanadium	A	A	A	5-YR	5-YR	A
Volatile Organic Compounds						
NHDES Full List (EPA Method 8260B)	A	A	A	N/A	N/A	A
1,4-dioxane (See Note #4)	N/A	N/A	N/A	N/A	N/A	A
Quality Assurance / Quality Control (QA/QC)						
Matrix Spike / Matrix Spike Duplicate (MS/MSD)		X			X	X
Duplicate		X			X	X
Equipment Blank (See Note #5)				X		
Field Blank (See Note #6)				X		

Notes:

1. A = Annual (Fall Event)
2. 5-YR: Sampled once every 5 years beginning in 2014.
3. N/A = Not Analyzed
4. Samples collected for analysis of "low level" 1,4-dioxane will be analyzed using EPA Method 8260B SIM, in accordance with the 2010 Project Operation Plan (Golder, 2010).

   The Group, USEPA and NHDES shall determine whether analysis of 1,4-dioxane is required at monitoring points after 2013.
5. Equipment Blanks will not be collected for Surface Water or Leachate sampling because disposal sampling equipment is used, per Surface Water and Leachate Sampling SOP #9.
   Equipment Blank for sediment sampling shall be one sample of rinsate from "all sampling equipment used" once sediment sampling is complete and the equipment has been decontaminated (rinsed with distilled water per Equipment Decontamination SOP #1).
6. Field Blank is source water used for decontamination and rinsate of samples.

APPENDIX B

Field Data Sheets and Calibration Sheets

COAKLEY LANDFILL SUPERFUND SITE

SUMMARY OF WELL CONSTRUCTION INFORMATION AND AUGUST 2013 GROUNDWATER ELEVATION MEASUREMENTS

Site ID	Monitored Zone - Unit	Screened Interval Feet Below Ground Surface	Measuring Point Elevation (ft NGVD)	PVC Casing Stickup (Feet Above Grade)	Well Depths (Feet Below top of PVC Casing)	August 2013 Monitoring Event Data	
						Depth To Water Level (Feet Below top of Measuring Point)	Water Level Elevation
Operating Unit 1 Wells							
BP-4	Bedrock - Open Borehole	33.6-99.0	111.70	2.76	101.56	14.31	97.39
MW-10	Overburden - Outwash	5-10	80.60	2.67	12.17	6.10	74.50
MW-11	Bedrock - Shallow	32-52	92.70	2.57	54.85	10.60	82.10
MW-2	Overburden - Outwash	10-20	94.54	NA	NA	6.85	87.69
MW-4	Overburden - Outwash	28-38	129.12	NA	39.22	31.37	97.75
MW-5D	Bedrock - Deeper	139-159	99.72	2.52	161.32	10.20	89.52
MW-5S	Bedrock - Shallow	48-78	101.96	2.75	83.02	11.90	90.06
MW-6	Bedrock - Open Borehole	25-184	101.15	2.10	171	10.75	90.40
MW-8	Bedrock - Shallow	44-64	85.02	2.59	67.51	7.60	77.42
MW-9	Overburden - Outwash	5-10	82.62	3.22	12.46	7.40	75.22
OP-2	Overburden - Outwash	7-12	100.00	2.10	16.84	6.11	93.89
OP-5	Overburden - Outwash	13-23	112.68	3.18	25.78	14.96	97.72
Operating Unit 2 Wells							
AE-1A	Overburden - Till	54-64	127.00	2.44	66.15	29.47	97.53
AE-1B	Bedrock - Shallow	75-85	126.80	2.23	87.69	29.29	97.51
AE-2A	Overburden - Till	10-20	79.60	2.46	22.55	4.90	74.70
AE-2B	Bedrock - Shallow	40-50	79.50	2.63	52.80	4.20	75.30
AE-3A	Overburden - Till	??-17.5	86.10	3.04	20.06	8.60	77.50
AE-3B	Bedrock - Shallow	28-40	87.30	3.00	43.02	9.46	77.84
AE-4A	Overburden - Outwash	5-15	77.20	2.25	16.05	4.91	72.29
AE-4B	Bedrock - Shallow	34-44	77.50	2.70	46.10	5.38	72.12
FPC-2A	Overburden - Outwash	6-16	78.40	2.81	18.81	2.51	75.89
FPC-2B	Bedrock - Shallow	22.5-37.5	77.98	2.55	40.01	2.76	75.22
FPC-4B	Bedrock - Shallow	18-33	75.83	2.30	35.45	5.40	70.43
FPC-5A	Overburden - Till	54-64	74.30	2.78	25.76	2.19	72.11
FPC-5B	Bedrock - Shallow	95-110	74.90	2.86	113.56	1.26	73.64
FPC-6A	Overburden - Outwash	3.5-4.5	79.20	5.54	9.97	7.98	71.22
FPC-6B	Bedrock - Shallow	13-28	77.10	2.75	30.20	5.50	71.60
FPC-7A	Overburden - Till	16.7-21.7	82.08	2.30	23.95	1.35	80.73
FPC-7B	Bedrock - Shallow	29.8-44.8	82.33	2.49	46.90	1.91	80.42
FPC-8A	Overburden - Till	23-33	73.80	2.37	33.87	1.20	72.60
FPC-8B	Bedrock - Shallow	40-55	73.60	2.33	57.45	1.20	72.40
FPC-9A	Overburden - Till	58-68	117.57	2.29	68.35	20.34	97.23
FPC-9B	Bedrock - Shallow	72-87	117.87	2.47	NA	20.65	97.22
FPC-9C	Overburden - Outwash	15-25	117.75	2.38	NA	20.06	97.69
FPC-11A	Overburden - Till	47-52	117.95	-0.35	50.41	20.50	97.45
FPC-11B	Bedrock - Shallow	58-73	117.90	-0.50	70.70	20.60	97.30
FPC-11C	Overburden - Outwash	18-33	118.04	-0.32	32.12	20.60	97.44
GZ-105	Bedrock - Shallow	35-50	73.60	3.04	51.99	2.90	70.70
GZ-123	Overburden - Outwash	9.5-16.5	87.49	NA	17.58	10.25	77.24
GZ-125	Bedrock - Open Borehole	57-200	88.77	NA	192.36	7.98	80.79

Notes

1. ft NGVD = feet National Geodetic Vertical Datum (datum listed on 2000 Aries Engineering monitoring report and as built survey [see Note 5])
2. NA = not available
3. PVC casing stickup measurements above ground surface are based on boring logs, with the following exceptions. Stickups for the following wells were not reported on boring logs and values listed above are based on field measurements in August 2013: MW-4, MW-5S, MW-5D, MW-6, MW-8, AE-1A, AE-1B, AE-2A, AE-2B, AE-3A, AE-3B, AE-4A, AE-4B, GZ-105 and FPC-6A. Note that a replacement well FPC-6A was installed in 2003. Note that casings for OP-2, MW-5S, MW-5D and MW-8 were extended during construction of landfill cap (at these locations screened intervals are based on original boring logs, other information was updated)
4. Well depths last measured in August 2012, as listed in 2012 Annual Report by Provan and Lorber.
5. Summit determined that Reference Point Elevations for MW-5S, MW-5D, MW-8 and OP-2 were incorrect for data collected since 1999. Correct measuring point elevations were identified on an as built survey plan prepared by Richard D. Bartlett and Associates, Inc. dated September 1998. Surveyed "top of cap" elevations for MW-5S, MW-5D and MW-8 were adjusted to top of PVC using field measurements (significant settling is not likely at these wells as they are 2-inch diameter wells install in 6 inch diamter boreholes through 6-inch diameter metal casings. A PVC casing elevation was listed for OP-2. Groundwater elevation data since April 1999 adjustments are as follows: MW-5S (+3.54 ft), MW-5D (+1.33 ft), MW-8 (-0.28 ft) and OP-2 (+1.51 ft).
6. A replacement well (point) for FPC-6A was installed in August 2003, due to insufficient water for sampling for extended periods of time. However, the reference point elevation was not updated at that time. Therefore, groundwater elevations presented in previous monitoring reports for FPC-6A since August 2003 were incorrect. Summit surveyed the FPC-6A reference point elevation in December 2013 relative to the FPC-6B reference point elevation and determined that the measure point elevation for FPC-6A is 79.20 feet (not 77.00 feet, as identifed in previous reports). Groundwater elevations at FPC-6A since August 2004 were corrected by +2.20 feet. In addition, the FPC-6A screened interval was updated based on well depth (9.97 feet), stickup (5.54 feet), and an assumed 1 foot screen interval.

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/12/13 Time: 9-10A | Field Personnel: Steve Marrotte & Sue Terina

Meter: (circle one) YSI: Model 600XL, Model 600XLM | Multimeter Serial Number: ~~[illegible]~~ 2686/11080

Rental Company: Pine Env.

Probe Pre-cleaned Certification Provided By: Personnel – Pine (OH) Date: 8/6/13

Temperature Calibration: Personnel: Pine (Mark Willis) Date: 8/7/13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15 Temperature check results: -0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading					Record these values immediately after calibration
DO Temp. (°C) reading					
pH 1st Standard	7	✓	4804	7/17	6.93
2nd Standard	4	✓	3693	10/16	3.94
3rd Standard	10	✓	2690	9/15	
Specific Conductance (µS/cm)	1413	✓	10304	4/22/14	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	235	✓	13B100578	3/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 22.5 °C		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 761.4 mm Hg [BP inches ✓ x 25.4 + BP ✓ mm Hg]

Dissolved Oxygen Charge (YSI Meters): 56 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: SY/SM

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NA	NA	NA	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A2354	12/13	
3rd Standard	100 NTU	✓	A2354	12/13	
4th Standard	800 NTU	✓	A2354	12/13	Verification Standard 10 NTU reads 9.42 passed

HACH Serial Number: 18139 Rental Company: Pine Env.

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/12/13 Time: 10A | Personnel: Marrotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.43	0 to 0.5 mg/L	✓	GS-1	8/13	
pH 7 check	7	7.07	+/- 5%	✓	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)	718	730	+/- 5%	✓	2A4559	4/14	Range 682 - 754 µS/cm (718)
Second standard used for check	1413	1420			10304	8/13	Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	235	235	+/- 5%	✓	13B100578	3/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 22 °C							
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	NA	NA	NA	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	9.42	+/- 10%	YES	A2365	12/13	Range 9.0 - 11.0 NTU (2100Q)

Notes: 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Steve Marrotte (Print) Steve Marrotte (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time:		Personnel:					
Zero DO check (mg/l)	0	042	0 to 0.5 mg/L	Y	Same		
pH 7 check	7	7.03	+/- 5%	Y	As		Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)	1413	1429	+/- 5%	Y	Before		Range 682 - 754 µS/cm (718)
Second standard used for check	718	735					Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	230	220	+/- 5%	Y			See Chart below for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 26 °C							
Turbidity Standard (NTU) 2100P[5]	20	~~19~~	+/- 5%	Y			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	9.4	+/- 10%	Y			Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.

4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.

5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Weather Conditions: Sunny

If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? SM

Calibration Check by Suzanne Yerina — Print Name

Signature

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 2686
Description YSI 600 XL
Calibrated 8/7/2013 8:21:15AM

Manufacturer YSI
Model Number 600 XL
Serial Number/ Lot Number 01L0629 AB
Location Maine
Department

State Certified
Status Pass
Temp °C 21
Humidity % 23

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	100.90	100.90	0.90%	Pass

Group # 5
Group Name Disolved Oxygen Zero

Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.

29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 2686
Description YSI 600 XL
Calibrated 8/7/2013 8:21:15AM

Test Instruments Used During the Calibration **(As Of Cal Entry Date)**

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
ME 240 ORP LOT# 5349	ME 240 ORP LOT# 5349 EXP. 12-2017	Hanna		LOT# 5349		12/25/2017
ME COND.1.143 LOT# 3AA223	ME COND. 1.413 LOT# 3AA223			LOT# 3AA223		1/25/2014
ME PH10 LOT# 2303A14	ME PH10 LOT# 2303A14			LOT# 2303A14		9/12/2014
ME PH4 LOT# 3AB480	ME PH4 LOT# 3AB480 EXP. FEB. 2015	Hanna		3AB480		2/28/2015
ME PH7 LOT# 2AL479	ME PH7 LOT# 2AL479 EXP. 12/2014	AquaPhoenix Scientific		lot# 2al479		12/25/2014
ME SODIUM SULFITE (ZERO DO) LOT	ME SODIUM SOLFITE (ZERO DO) LOT# 3612C258			LOT# 3612C258		

Notes about this calibration

Zero DO Sodium Sulfite Check:____0.13___mg/L
DO Probe Reconditioned by:__OH_____ Date:__8-6-13_____
NIST Thermometer SN# 90904584 Check:__20.12_____C Instrument Output:____19.98_____C

Calibration Result Calibration Successful
Who Calibrated Mark Willis

All instruments are calibrated by Pine Environmental Services, LLC. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services, LLC. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance

INSTRUMENT PACKING LIST

Description	YSI 600 XL and 650 MDS display
Instrument ID	2686 - 11080
Date Calibrated	8-6-2013

Pine Environmental Services, In

NJ Headquarters 800-301-9663

GA 800-842-1088	VA 866-801-PINE
OH 877-326-PINE	FL 877-259-PINE
ME 888-779-PINE	PA 866-750-PINE
MA 800-519-PINE	TN 877-355-7907
NY 877-903-PINE	CA 888-620-PINE
NC 866-646-PINE	IL 855-888-PINE
TX 866-981-PINE	ON 866-688-0388
CO 866-960-PINE	BC 877-678-8383

Standard Items	Prepared	QC check	Received by customer	Returned to Pin
YSI 600 XL sonde w/ 8' cable and case	✓	✓		
YSI 650 MDS Display	✓	✓		
Manual	✓	✓		
Quick reference card	✓	✓		
Stand (base, clamp, and rod)	✓	✓		
Probe Guard	✓	✓		
Calibration cup w/sponge	✓	✓		
Flow cell	✓	✓		
• Cell adapter for older style cell (if applicable)		✓		
2 of each barb size (1/4, 3/8, 1/2)	✓	✓		
DO_2 probe reconditioning kit	✓	✓		
4 C batteries	✓	✓		
6-series Communications cable	✓	✓		
YSI Ecowatch Software	✓	✓		
Calibration kit, pH (4,7,10), conductivity, and ORP.	✓	✓		
NIST traceable calibration sheet		✓		

Prepared by: JR

QC checked by: [signature]

Date: 8/7

This packing list is to ensure that every item needed to operate the unit was sent a received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environment Services, Inc.

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.
29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 18139
Description HACH 2100P Turbidimeter
Calibrated 8/2/2013 10:56:56AM

Manufacturer HACH
Model Number ~~2100P~~ 2100Q
Serial Number/ Lot Number 11060C010262
Location Maine
Department

State Certified
Status Pass
Temp °C 22.5
Humidity % 45

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.00 / 10.00	NTU	10.00	NTU	9.97	9.97	-0.30%	Pass
20.00 / 20.00	NTU	20.00	NTU	19.80	19.80	-1.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	99.60	99.60	-0.40%	Pass
800.00 / 800.00	NTU	800.00	NTU	796.00	796.00	-0.50%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Nick Buckley

All instruments are calibrated by Pine Environmental Services, LLC. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services, LLC. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance

INSTRUMENT PACKING LIST

Pine Environmental Services, Inc.

NJ Headquarters 800-301-9663

GA 800-842-1088	**VA** 866-801-PINE
OH 877-326-PINE	**FL** 877-259-PINE
ME 888-779-PINE	**PA** 866-750-PINE
MA 800-519-PINE	**TN** 877-355-7907
NY 877-903-PINE	**CA** 888-620-PINE
NC 866-646-PINE	**IL** 855-888-PINE
TX 866-981-PINE	**ON** 866-688-0388
CO 866-960-PINE	**BC** 877-678-8383

Description	Hach 2100Q Turbidimeter
Instrument ID	18139
Date Calibrated	8-2-13

Standard Items	**Prepared**	**QC check**	**Received by customer**	**Returned to Pine**
Hach 2100Q w/ hard case	✓	✓		
Manual	✓	✓		
Lint-free lens papers (KimWipes)	✓	✓		
10 NTU vial	✓	✓		
20 NTU vial	✓	✓		
100 NTU vial	✓	✓		
800 NTU vial	✓	✓		
(2) sample vials	✓	✓		
(4) Extra AA batteries	✓			
Silicone oil	✓	✓		
NIST traceable calibration sheet	✓	✓		
Optional Items				
Extra sample vials ___	X	X		
Additional Certifications	X	X		

Prepared by: NB

QC checked by: M

Date: 8/6

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services, Inc.

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/13/13 Time: 8:11 | Field Personnel: Steve Marcotte

Meter: (circle one) YSI: Model 600XL Model 600XLM | Multimeter Serial Number: 26816/11080

Rental Company: Pine ENV.

Probe Pre-cleaned Certification Provided By: Personnel Pine (OH) Date: 8/6/13

Temperature Calibration: Personnel: Pine (Mark Willis) Date: 8/7/13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15 Temperature check results: -0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading	8.37	✓			Record these values immediately after calibration
DO Temp. (°C) reading	24.15	✓			
pH 1st Standard	7	✓	4804	7/17	
2nd Standard	4	✓	3693	10/16	
3rd Standard	10	✓	2690	9/15	7/2017
Specific Conductance (µS/cm)	1413	✓	4785	4/22/14	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	232	✓	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 24		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 757.95 mm Hg [BP inches _____ x 25.4 + BP _____ mm Hg]

Dissolved Oxygen Charge (YSI Meters): 52.3 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: SBM.

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or NO

HACH 2100P or 2100Q* Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	NOT REQ			Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A3070	3/14	
3rd Standard	100 NTU	✓	A3070	3/14	
4th Standard	800 NTU	✓	A2282	10/13	

HACH Serial Number: 10139 Rental Company: Pine ENV.

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/13 Time: 9-11 Personnel: Steve Marcotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.1	0 to 0.5 mg/L	YES	QS1	8/13	
pH 7 check	7	7.06	+/- 5%	YES	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	743	+/- 5%	YES	2AH389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	232	232	+/- 5%	Yes	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 23.59 °C							
Turbidity Standard (NTU) 2100P	20	—	~~+/- 5%~~	~~NO~~ REQ	—	—	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	9.92	+/- 10%	YES	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Steve Marcotte (Print) _____ (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 8/13/13 Time: 6 PM		Personnel: Marcotte					
Zero DO check (mg/l)	0	0.30	0 to 0.5 mg/L	Y	Q51	8/13	
pH 7 check	7	7.12	+/- 5%	Y	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	741	+/- 5%	Y	2AH389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 24 °C	232	231	+/- 5%	Y	13E100872	6/15	See Chart below for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	N/A	+/- 5%			→	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	9.94	+/- 10%	Y	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.

4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.

5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Cal lot dump into other container & used for end of Day CAL.

Weather Conditions: partly cloudy/overcast

If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? _____

Calibration Check by STEVE MARCOTTE (Print Name) Steve Marcotte (Signature)

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ.

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/14/13 Time: 7 AM | Field Personnel: Steve Marcotte

Meter: (circle one) YSI: Model 600XL, Model 600XLM | Multimeter Serial Number: 11080 / 2686

Rental Company: Pine Env Services.

Probe Pre-cleaned Certification Provided By: Personnel Pine (BH) Date: 8/6/13

Temperature Calibration: Personnel: Pine (Mark Willis) Date: 8-7-13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15 Temperature check results: -0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading	9.52	✓			Record these values immediately after calibration
DO Temp. (°C) reading	17.32	✓			
pH 1st Standard	7	✓	4804	7/17	
2nd Standard	4	✓	3693	10/16	
3rd Standard	10	✓	2690	9/15	
Specific Conductance (µS/cm)	1413	✓	4785	7/17	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	239	✓	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 19 °C		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 753.6 mm Hg [BP inches _____ x 25.4 + BP _____ mm Hg]

Dissolved Oxygen Charge (YSI Meters): 50.2 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: Marcotte

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or (NO)

HACH 2100P or 2100Q* Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	N/A	~~A3070~~	~~3/14~~	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A3070	3/14	
3rd Standard	100 NTU	✓	A3070	3/14	
4th Standard	800 NTU	✓	A2282	10/13	

HACH Serial Number: 18139 Rental Company: Pine Env. Services.

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/14/13 Time: 755A Personnel: Marcotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.15	0 to 0.5 mg/L	YES	QS1	8/13	
pH 7 check	7	699	+/- 5%	YES	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	751	+/- 5%	YES	2AH389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	239	239	+/- 5%	YES	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 19 °C							
Turbidity Standard (NTU) 2100P	20	N/A	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.0	+/- 10%	YES	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Steve Marcotte (Print) Steve Marcotte (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 8/14/13 Time: 230 P (1430)		Personnel: Sue Gerina					
Zero DO check (mg/l)	0	0.28	0 to 0.5 mg/L	Yes	QS1	6/13	
pH 7 check	7	7.02	+/- 5%	Yes	4864	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	725	+/- 5%	Yes	2AH389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 27 °C	228	227	+/- 5%	Yes	13E100512	6/15	See Chart below for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	N/A	+/- 5%	NA			Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.1	+/- 10%	Yes	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Weather Conditions:
If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? _____

Calibration Check by Suzanne Verma
Print Name

Signature

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ.

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/15/13 Time: 7:06A | Field Personnel: Steve Marcotte

Meter: (circle one) YSI: Model 600XL Model 600XLM | Multimeter Serial Number: 11080 / 2686

Rental Company: Pine ENV

Probe Pre-cleaned Certification Provided By: Personnel: PINE(OH) Date: 8/6/13

Temperature Calibration: Personnel: Pine(MarkWillis) Date: 8/7/13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15 Temperature check results: -0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading	10.13	✓			Record these values immediately after calibration
DO Temp. (°C) reading	14.91	✓			
pH 1st Standard	7	✓	4804	7/17	
2nd Standard	4	✓	3693	10/16	
3rd Standard	10	✓	2690	9/15	
Specific Conductance (µS/cm)	1413	✓	4785	7/17	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	241	✓	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 17 °C		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 762.2 mm Hg [BP inches _____ x 25.4 + BP _____ mm Hg]

Dissolved Oxygen Charge (YSI Meters): ~~762.2~~ 53.3 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: Marcotte

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or (NO)

HACH 2100P or 2100Q Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	Not REQ			Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A3070	3/14	
3rd Standard	100 NTU	✓	A3070	3/14	
4th Standard	800 NTU	✓	42282	10/13	

HACH Serial Number: 18139 Rental Company: PINE ENV.

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/15/13 Time: 748 | Personnel: Marcotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	SM Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.22	0 to 0.5 mg/L	YES	8051	8/13	
pH 7 check	7	7.01	+/- 5%	YES	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	747	+/- 5%	YES	2A11389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	241	241	+/- 5%	YES	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 17 °C							
Turbidity Standard (NTU) 2100P	20	NOT REQ	18-22%				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	9.84	+/- 10%	YES	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Steve Marcotte (Print) _____ (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 8/15 Time: 1437		Personnel: Sucheverria Q					
Zero DO check (mg/l)	0	0.24	0 to 0.5 mg/L	Yes	QS1	8/13	
pH 7 check	7	6.98	+/- 5%	Yes	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	718	742	+/- 5%	Yes	2AH389	8/13	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 33 °C	321	219	+/- 5%	Yes	130 16878	6/15	See Chart below for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	—	+/- 5%	—	—	—	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.4	+/- 10%	Yes	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.

4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.

5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Weather Conditions:
If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? _____

Calibration Check by Suzanne Yerina (Print Name) _____ (Signature)

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ.

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/16/13 Time: 10:57 A | Field Personnel: Marcotte

Meter: (circle one) YSI: Model 600XL, Model 600XLM | Multimeter Serial Number: 20861 11080

Rental Company: Pine Environmental

Probe Pre-cleaned Certification Provided By: Personnel PINE (OH) ~~Date:~~ 8/6/13

Temperature Calibration: Personnel: PINE (Mark Willis) ~~Date:~~ 8/7/13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15 ~~Temperature check results:~~ +0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading	8.91	✓			Record these values immediately after calibration
DO Temp. (°C) reading	21.34	✓			
pH 1st Standard	7	✓	4804	7/17	
2nd Standard	4	✓	3693	10/16	
3rd Standard	10	✓	2690	9/15	
Specific Conductance (µS/cm)	718	✓	2A4389	8/13	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	238	✓	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 20 °C		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 744.7 mm Hg [BP inches _____ x 25.4 + BP _____ mm Hg]

Dissolved Oxygen Charge (YSI Meters): 51.2 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: Marcotte

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or (NO)

HACH 2100P or 2100Q Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	Not REQ	—	—	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A3070	3/14	
3rd Standard	100 NTU	✓	A3070	3/14	
4th Standard	800 NTU	✓	A2282	10/13	

HACH Serial Number: 18139 Rental Company: Pine Environmental

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/16/13 Time: 1125 Personnel: Marcotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.16	0 to 0.5 mg/L	YES	QS1	8/13	
pH 7 check	7	7.13	+/- 5%	YES	4804	7/17	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1366	+/- 5%	YES	4785	7/17	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 20 °C	238	238	+/- 5%	YES	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
					(CPM)	(SM)	
Turbidity Standard (NTU) 2100P	20	NOT REQ	+/- 5%	—	~~A3070~~	~~3/14~~	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	10.2	+/- 10%		A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:
1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Marcotte, Steve (Print) _____ (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 8/16/13 Time: 16:40		Personnel: Marcotte					
Zero DO check (mg/l)	0	0.25	0 to 0.5 mg/L	YES	QS1	8/13	
pH 7 check	7	7.01	+/- 5%	YES	3AA535	1/15	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1456	+/- 5%	YES	4785	7/17	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)	230	228	+/- 5%	YES	13E100872	6/15	See Chart below for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 26 °C							
Turbidity Standard (NTU) 2100P[5]	20	N/A	+/- 5%			→	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	9.81	+/- 10%	YES	A8070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.

4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.

5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Weather Conditions:
If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? _____

Calibration Check by Steve Marcotte (Print Name) Steve Marcotte (Signature)

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ.

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

COAKLEY LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 8/19/13 Time: 625 | Field Personnel: Marcotte

Meter: (circle one) YSI: Model (600XL), Model 600XLM | Multimeter Serial Number: 26860/11080

Rental Company: Pine Environmental

Probe Pre-cleaned Certification Provided By: Personnel Pine (OH) ~~Date:~~ 8/6/13

Temperature Calibration: Personnel: Pine (Mark Willis) Date: 8/7/13

Manufactures Accuracy Range of Sensor (e.g. +/- 0.2°C): +/- 0.15. Temperature check results: -0.14 compared to NIST

Daily Instrument Calibration

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacture
DO mg/L reading	9.66	✓			Record these values immediately after calibration
DO Temp. (°C) reading	17.13	✓			
pH 1st Standard	7	✓	3AA535	1/15	
2nd Standard	4	✓	3AB001	2/15	
3rd Standard	10	✓	2690	9/15	
Specific Conductance (µS/cm)	718	✓	2AH389	8/13	One standard is used to calibrate, second one to check (1413 and 718 standards)
ORP using Zobell Solution	239	✓	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 19 °C		✓			

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 761.7 mm Hg [BP inches _____ x 25.4 + BP _____ mm Hg]

Dissolved Oxygen Charge (YSI Meters): 50.2 (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane for nicks or bubbles (check as completed) ✓ Personnel: Marcotte

Changed Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES or (NO)

HACH 2100P or 2100Q * Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard (blank)	<0.1 NTU	N/A	~~A3570~~ (6M)	~~3/14~~ (6M)	Calibrate w/ StablCal® Formazin Primary Turbidity Standards
2nd Standard	20 NTU	✓	A3570	3/14	
3rd Standard	100 NTU	✓	A3570	3/14	
4th Standard	800 NTU	✓	A2282	10/13	

HACH Serial Number: 18139 Rental Company: Pine ENV

* NOTE: the 2100Q does not have a <0.1 standard, record N/A (not applicable) in the <0.1 standard boxes as appropriate.

Post Calibration Check

Date: 8/19/13 Time: 650 | Personnel: Marcotte

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.14	0 to 0.5 mg/L	YES	QS1	8/13	
pH 7 check	7	7.00	+/- 5%	YES	3AA535	1/15	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1441	+/- 5%	YES.	4785	7/17	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 19 °C	239	239	+/- 5%	YES	13E100872	6/15	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P	20	NA	+/- 5%	N/A	———	———	Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q	10	✓	+/- 10%	YES	A3570	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes: 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ü in the appropriate box.
4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.
5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration & Post Calibration Check Performed by: Steve Marcotte (Print) Steve Marcotte (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 8/9/13 Time: 1912		Personnel:		YES (SM)			
Zero DO check (mg/l)	0	0.35	0 to 0.5 mg/L	~~0.35~~	QS1	8/13	
pH 7 check	7	7.01	+/- 5%	YES	3AA535	1/15	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1390	+/- 5%	YES	4785	7/17	Range 682 - 754 µS/cm (718) Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 29 °C	226	224	+/- 5%	YES	13E100822	6/15.	See Chart below for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100P[5]	20	NA	~~+/- 5%~~				Range 19.0 - 21.0 NTU (2100P)
Turbidity Standard (NTU) 2100Q[5]	10	10.0	+/- 10%	YES	A3070	3/14	Range 9.0 - 11.0 NTU (2100Q)

Notes:

1) If the end of the day calibration check is not within the acceptable range the data collected that day for that parameter shall be qualified in it's use.

2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.

3) If the lot numbers and expiration dates are the same as the initial calibration place a check mark ✓ in the appropriate box.

4) Either standard (718 or 1413 µS/cm) maybe used to calibrate specific conductance, the second standard is used to check it.

5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Weather Conditions:
If the calibration/calibration check was performed off-site (e.g. in the office, etc) due to weather conditions, check (√) here:_____

Where off-site was the calibration/calibration check performed? _____

Calibration Check by Steve Maratto
Print Name

Steve Maratto
Signature

List wells sampled using this equipment on this day if data needs to be qualified

QUAL NOT REQ.

Zobell Solution mV Value Based on Temperature for ORP Calibration Calibration Check Range Values (+/- 5%)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	**267**	254-280	10	**251**	238-264	23	**234**	222-246
-2	**266**	253-279	11	**249**	237-261	24	**232**	220-244
-1	**265**	252-278	12	**248**	236-260	25	**231**	219-243
0	**264**	251-277	13	**247**	235-259	26	**230**	219-242
1	**262**	249-275	14	**245**	233-257	27	**228**	217-239
2	**261**	248-274	15	**244**	232-256	28	**227**	216-238
3	**260**	247-273	16	**243**	231-255	29	**226**	215-237
4	**258**	245-271	17	**241**	229-253	30	**225**	214-236
5	**257**	244-270	18	**240**	228-252	31	**223**	212-234
6	**256**	243-269	19	**239**	227-251	32	**222**	211-233
7	**254**	241-267	20	**238**	226-250	33	**221**	210-232
8	**253**	240-266	21	**236**	224-248	34	**219**	208-230
9	**252**	239-265	22	**235**	223-247	35	**218**	207-229

Surface Water / Sediment Worksheet

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/14/13 Time: ~~0900~~ SM Varies. Field Personnel: SLY / SBM

WEATHER CONDITIONS

CURRENT	
Barometric Pressure (in mm/hg)	753.6
Storm (heavy rain)	NO
Rain (Steady Rain)	NO
Showers (Intermittent)	NO
Cloud Cover (%)	10%
Clear/Sunny	YES
Comments:	Breezy

PAST 7 DAYS							
Date	8/7/13	8/8/13	8/9/13	8/10/13	8/11/13	8/12/13	8/13/13
Barometric Pressure (in mm/hg)	NOT DETERMINED						
Estimated Rainfall (in)	0	0.05	1.23	0	0	0	0
Comments	rainfall source → Weather underground (Portsmouth AWOS)						

SURFACE WATER / SEDIMENT SAMPLING LOCATION CHARACTERIZATION

Provide Physical Description of Sampling Locations At The Time of Sampling

Photograph # See Attached photo log.

Photograph #

Photograph #

Photograph #

Photograph #

IN SITU SURFACE WATER QUALITY

Minimum 2 minute parameter stabilization period met (Y/N)? Y

Sample Location ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH units	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Sample Time	Comments
L-1	15	1220	6.3	-102	2.3	144	1300	
L-1-DUP	NR	NR	NR	NR	NR	NR	~~NR~~ SM 1300	
SW-4	~~DRY~~ SM						→	trace water insufficient to sample.
SW-5	DRY						→	DRY
SW-103	DRY						→	DRY

Note:Surface Water Quality Parameters are collected using the YSI 600 XL/XLM and Hach 2100P or 2100Q units. Both units are calibrated in accordance with the calibration SOP in the EMP.

PHOTOGRAPHIC LOG

Client Name: Coakley Landfill Group

Task Name: Surface Water Sampling

Project No. 12-3173

Photo No. 1

Date: August 14, 2013

Site Location:
Coakley Landfill
North Hampton, NH

Description:

L-1

Ponded surface water behind rip rap area. Dry red-stained seeps were visible along slopes in this area.



Photo No. 2

Date: August 14, 2013

Site Location:
Coakley Landfill
North Hampton, NH

Description:

SW-4:

Insufficient water to sample in forested pit and mound wetland.



PHOTOGRAPHIC LOG

Client Name: Coakley Landfill Group

Task Name: Surface Water Sampling

Project No. 12-3173

Photo No. 3

Date: August 14, 2013

Site Location:
Coakley Landfill
North Hampton, NH

Description:

SW-5:

Trace surface water in marshy area dominated by fragmites grass



Photo No. 4

Date: August 14, 2013

Site Location:
Coakley Landfill
North Hampton, NH

Description:

SW-103

Dry ground in wetland area dominated by fragmites grass and shrubs



Water Supply Well Sampling Log
Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Station ID	Date	Time	Temp °C	S.Cond uS/cm	DO mg/l	pH	ORP mv	Turbidity NTU
339BHR	8/16/13	12:58	NR	NR	NR	NR	NR	NR.
R3	8/16/13	14:05	13	414	<0.5 ~~0.23~~ (SM)	7.0	-224	6 ~~(SM)~~
346BHR	8/16/13	14:55	NR	NR	NR	NR	NR	NR.
415 BHR	8/16/13	1545	13	351	0.57	8.1	-188	<5
R5	8/16/13	water system	out of	service per	Marianne			
							Sewall (owner)	
							Lives @ 346BHR	

Notes:
When recording pH and dissolved oxygen data, only use one decimal place.
When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers.
When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5".
When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".
"NR" indicates no reading taken.
YSI Multiparameter Meter (600XL)/XLM or 6820; Hach 2100P or (2100Q) Turbidity Meter

Comments/Observations:

- 339 BHR (6of coarse) purge @ 7.5 gpm, total 172 gallon purge (23 minutes). sample of pressure tank w/ treatment in bypass mode (sampling tap for untreated does not function).
- R3 - purge @ 6.67 gpm, total purge 120 gallons (17 minutes)
- 346 BHR - purge @ 3.1 gpm, total 62 gallons (20 minutes)
- 415 BHR - purge @ 6 gpm, total 120 gallons (20 minutes)

SAMPLER: STEVE MARCOTTE ~~STEVE Marcotte~~ 8/16/2013.

BAILER SAMPLING WORKSHEET

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	MW-4	
Date	8/13/13	
Sampler Name	Steve Marcotte	
Inner Casing Diameter	2	inches
Depth of Well (from top of casing)	39.22	feet
Static Water Level (from top of casing)	32.22	feet
Volume of Standing Water	1.12	gallons
Min. Purge Volume (3x Volume of Standing Water)	3.36	gallons
Max. Purge Volume (5x Volume of Standing Water)	5.6	gallons
Actual Purge Volume	4.1	gallons

CALCULATION OF PURGE VOLUME FOR WELLS

Purge Volume = h x 3.14(r/12)2 x 7.48 gal/ft^3;

One Purge Volume = height of water x gallons/foot

Inner Casing Diameter (Inches)	Gallons Per Foot	Gallons Per Foot X 3 Volumes	Gallons Per Foot X 5 Volumes
1.00"	0.04	0.12	0.2
1.25"	0.06	0.18	0.3
1.50"	0.09	0.27	0.45
1.75"	0.12	0.36	0.6
2.00"	0.16	0.48	0.8
2.25"	0.21	0.63	1.05
2.50"	0.25	0.75	1.25
3.00"	0.37	1.11	1.85
3.50"	0.5	1.5	2.5
4.00"	0.65	1.95	3.25
6.00"	1.47	4.41	7.35

Sampler Signature

BAILER SAMPLING WORKSHEET

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	AE-1A	
Date	8/12/2013	
Sampler Name	Sue Kesina.	
Inner Casing Diameter	2	inches
Depth of Well (from top of casing)	66.15	feet
Static Water Level (from top of casing)	29.20	feet
Volume of Standing Water	5.91	gallons
Min. Purge Volume (3x Volume of Standing Water)	17.7	gallons
Max. Purge Volume (5x Volume of Standing Water)	29.6	gallons
Actual Purge Volume	22.8	gallons

CALCULATION OF PURGE VOLUME FOR WELLS

Purge Volume = h x 3.14(r/12)2 x 7.48 gal/ft^3;

One Purge Volume = height of water x gallons/foot

Inner Casing Diameter (Inches)	Gallons Per Foot	Gallons Per Foot X 3 Volumes	Gallons Per Foot X 5 Volumes
1.00"	0.04	0.12	0.2
1.25"	0.06	0.18	0.3
1.50"	0.09	0.27	0.45
1.75"	0.12	0.36	0.6
2.00"	0.16	0.48	0.8
2.25"	0.21	0.63	1.05
2.50"	0.25	0.75	1.25
3.00"	0.37	1.11	1.85
3.50"	0.5	1.5	2.5
4.00"	0.65	1.95	3.25
6.00"	1.47	4.41	7.35

Sampler Signature

BAILER SAMPLING WORKSHEET

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	AE-1B	
Date	8/13/2013	
Sampler Name	Sue Yerima	
Inner Casing Diameter	2	inches
Depth of Well (from top of casing)	87.69	feet
Static Water Level (from top of casing)	29.10	feet
Volume of Standing Water	9.4	gallons
Min. Purge Volume (3x Volume of Standing Water)	28.2	gallons
Max. Purge Volume (5x Volume of Standing Water)	47	gallons
Actual Purge Volume	33	gallons

CALCULATION OF PURGE VOLUME FOR WELLS

Purge Volume = h x 3.14(r/12)2 x 7.48 gal/ft^3;

One Purge Volume = height of water x gallons/foot

Inner Casing Diameter (Inches)	Gallons Per Foot	Gallons Per Foot X 3 Volumes	Gallons Per Foot X 5 Volumes
1.00"	0.04	0.12	0.2
1.25"	0.06	0.18	0.3
1.50"	0.09	0.27	0.45
1.75"	0.12	0.36	0.6
2.00"	0.16	0.48	0.8
2.25"	0.21	0.63	1.05
2.50"	0.25	0.75	1.25
3.00"	0.37	1.11	1.85
3.50"	0.5	1.5	2.5
4.00"	0.65	1.95	3.25
6.00"	1.47	4.41	7.35

Sampler Signature

PERISTALIC PUMP INTERVAL SAMPLING

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	Date	Well Depth (ft)	Depth of Tubing Intake (ft)	Calculated Minimum Purge Volume Required (mL)	Clock Time (24 HR)	Water Level (ft)	Purge Rate (ml/min)	Total Purge Volume (mL)	Sample Collection Time (24 HR)	Comments / Adjustments / Lab Analysis LAB-ID
MW-5B	8/13/13	161.32	156.3	1410	1038	10.2	70	1540	1100	154 BGS
↓		↓	151.3	1362	1101	10.3	70	1330	1120	149 BGS
↓		↓	146.3	1312	1121	10.3	70	1330	1140	144 BGS
MW-5S	8/13/13	83.02	78	640	1215	11.9	60	900	1230	73 BGS
↓	↓	↓	73	589	1232	12.0	60	780	1245	68 BGS
↓	↓	↓	68	540	1246	12.0	60	540	1255	63 BGS
↓	↓	↓	63	491	1255	12.1	60	300	1300	58 BGS
↓	↓	↓	58	443	1302	12.1	60	780	1315	53 BGS
FPC-8B	8/13/13	57.95	55.5	524	1348	1.2	50	600	1350	53 BGS
↓	↓	↓	50.5	476	1351	1.2	50	700	1405	48 BGS
↓	↓	↓	44.5	418	1406	1.2	50	450	1415	42 BGS
G2-10S	8/13/13	51.99	50	455	1425	2.9	50	500	1435	48 BGS
↓	↓	↓	45	406	1436	2.9	50	450	1445	43 BGS
↓	↓	↓	39	347	1446	3.0	50	450	1455	37 BGS

Signature

PERISTALIC PUMP INTERVAL SAMPLING

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	Date	Well Depth (ft)	Depth of Tubing Intake (ft)	Calculated Minimum Purge Volume Required (mL)	Clock Time (24 HR)	Water Level (ft)	Purge Rate (ml/min)	Total Purge Volume (mL)	Sample Collection Time (24 HR)	Comments / Adjustments / Lab Analysis
MW-8	8/13/13	67.51	62	523	1530	7.6	60	600	1540	LAB ID
↓	↓	↓	57	477	1541	7.6	60	540	1550	54 BGS
			57	477	NR	7.6	60	NR	1555	54 BGS-DUP
			52	428	1556	7.6	60	540	1605	49 BGS
			EB	NR	NR	NR	NR	NR	1725	EB
↓	↓	↓	FB	NR	NR	NR	~~NR~~	~~NR~~	1715	FB

Signature

PERISTALIC PUMP INTERVAL SAMPLING

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	Date	Well Depth (ft)	Depth of Tubing Intake (ft)	Calculated Minimum Purge Volume Required (mL)	Clock Time (24 HR)	Water Level (ft)	Purge Rate (ml/min)	Total Purge Volume (mL)	Sample Collection Time (24 HR)	Comments / Adjustments / Lab Analysis LAB ID
MW-11	8/14/13	54.85	49.9	380	0742	10.6	50	500	0752	47BGS
↓	↓	↓	44.9	331	0754	10.6	50	450	0813	42BGS
↓	↓	↓	39.9	283	0815	10.6	50	700	0829	37BGS

Signature

PERISTALIC PUMP INTERVAL SAMPLING

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Well ID	Date	Well Depth PVC (ft)	Depth of Tubing Intake PVC (ft)	Calculated Minimum Purge Volume Required (mL)	Clock Time (24 HR)	Water Level TOC (ft)	Purge Rate (ml/min)	Total Purge Volume (mL)	Sample Collection Time (24 HR)	Comments / Adjustments / Lab Analysis LAB ID	
AE-3B	8/19/13	43.02	41.0	306	0741	9.46	56	315	0748	38 BGS	slightly turbid
↓	↓	↓	37.0	262	0756	9.94	56	272	0801	34 BGS	Large Particles
↓	↓	↓	33.0	224	0810	9.98	57	230	0815	30 BGS	
FPC-7B	8/19/13	46.90	44.9	417	0919	1.91	60	420	0927	43 BGS	cloudy
↓	↓	↓	39.9	367	0940	2.58	60	365	0946	38 BGS	Slightly turbid.
↓	↓	↓	~~34~~ 34.9	311	1003	2.76	62	295	1008	33 BGS	
FPC-5B	8/19/13	113.56	111.6	1070	1117	1.26	62	1080	1135	108 BGS	clear
↓	↓	↓	106.6	1021	1145	1.40	60	1030	1202	103 BGS	clear
↓	↓	↓	100.6	962	1212	1.39	65	968	1227	97 BGS	clear
FPC-6B	8/19/13	30.20	28.2	220	1419	5.50	64	235	1423	26 BGS	Yellow tint
↓	↓	↓	23.2	170	1435	5.64	68	180	1438	21 BGS	cloudy, slightly turbid, large part.
↓	↓	↓	18.2	122	1452	5.62	66	128	1454	16 BGS.	
FPC-4B	8/19/13	35.45	33.5	277	1613	5.40	62	280	1618	31 BGS	clear
↓	↓	↓	28.5	223	1625	5.56	62	235	1629	26 BGS	↓
↓	↓	↓	22.5	163	1630	5.70	60	180	1639	20 BGS.	

Signature for Tom Daniels.

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/7/13 Well ID: FPC-8A

Weather Conditions: Sunny, 75° breezy

Field Personnel: Sue Yerina

Purging Device & Serial # (pump type): DeriStaltic Pump

Reference Measuring Point (Top of PVC/Top of Casing): Top of PVC

Screen Interval (ft, ref. to measuring point): ~~25.87 - 35.87~~ 25.37 - 35.37 (5m)

Purging Start Time: 0951 (24 hour cycle)

Sample Time: 1038 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 39.87

Initial Water Level (ft, ref. to measuring point): 1.2

Tubing Intake (ft, ref. to measuring point): 30

Head Above Tubing Intake (ft, ref. measuring point): 28.8

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 70

Total Purge Volume (gallons): 0.9

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1036

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1048 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
0958	1.6	0.4	0.4	NR	70	15	300	6.6	106	2.3	26	
0959	1.6	0	0.4	NR	70	15	299	6.6	125	1.8	26	
1003	1.6	0	0.4	NR	70	15	298	6.5	143	1.5	27	
1007	1.6	0	0.4	NR	70	15	294	6.4	157	1.3	27	
1011	1.6	0	0.4	NR	70	15	293	6.4	142	1.2	27	
1015	1.6	0	0.4	NR	70	15	294	6.4	137	1.2	27	
1019	1.6	0	0.4	NR	70	14	296	6.4	124	1.1	24	
1024	1.6	0	0.4	NR	70	14	300	6.5	51	1.1	26	
1028	1.6	0	0.4	NR	70	14	300	6.5	39	1.1	26	
1032	1.6	0	0.4	NR	70	14	300	6.5	31	1.1	26	
1036	1.6	0	0.4	NR	70	14	300	6.5	31	1.1	26	2"-Dia
												Tubing Vol: 0.091 gal
												Drawdown: 0.064 gal
												Purge > 0.142 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/12/13 Well ID: OP-5

Weather Conditions: Sunny, 80°

Field Personnel: Sue Haring

Purging Device & Serial # (pump type): Peristaltic

Reference Measuring Point (Top of PVC/Top of Casing): Top of PVC

Screen Interval (ft, ref. to measuring point): ~~15.4 to 25.4~~ 16.18-26.18 (5m)

Purging Start Time: 1150 (24 hour cycle)

Sample Time: 1215 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 25.75

Initial Water Level (ft, ref. to measuring point): 14.80

Tubing Intake (ft, ref. to measuring point): ~~20.5~~ 21 (5m)

Head Above Tubing Intake (ft, ref. measuring point): 5.6

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 120

Total Purge Volume (gallons): 0.75

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1213

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: 1216 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1155	14.8	0	0	NR	120	13	248	6.0	-79	2.7	2	
1158	14.8	0	0	NR	120	12	247	6.0	-79	2.1	3	
1201	14.8	0	0	NR	120	12	246	5.9	-75	1.6	3	
1204	14.8	0	0	NR	120	12	246	5.8	-71	1.5	3	
1207	14.8	0	0	NR	120	12	247	5.8	-70	1.4	2	
1210	14.8	0	0	NR	120	12	246	5.8	-68	1.3	2	
1213	14.8	0	0	NR	120	12	246	5.8	-68	1.3	2	
												1.25" dia.
												Tubing Vol 0.0065 gal
												Drawdown Vol 0 gal
												Purge > 0.0065 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/12/13 Well ID: BP-4

Weather Conditions: Sunny, 80°

Field Personnel: Sue Herring

Purging Device & Serial # (pump type): Peristaltic pump

Reference Measuring Point (Top of PVC/Top of Casing): Top of PVC casing

Screen Interval (ft, ref. to measuring point): ~~31.2 - 101.76~~ 33.36 - 101.76 (SM)

Purging Start Time: 1243 (24 hour cycle)

Sample Time: ~~1250~~ 1300 (24 hour cycle) SM

Well Depth (ft, ref. to measuring point) 101.56

Initial Water Level (ft, ref. to measuring point): 14.1

Tubing Intake (ft, ref. to measuring point): ~~37.5~~ 52 (SM)

Head Above Tubing Intake (ft, ref. measuring point): 37.5

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 120

Total Purge Volume (gallons): 0.5

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1258

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: ~~1250~~ (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1246	14.1	0	0	NR	120	14	982	7.2	-188	2.6	17	
1249	14.1	0	0	NR	120	13	984	7.1	-187	1.8	13	
1252	14.1	0	0	NR	120	13	984	7.1	-183	1.8	10	
1255	14.1	0	0	NR	120	13	985	7.1	-179	1.7	10	
1258	14.0	0	0	NR	120	13	984	7.1	-183	1.8	9	
												6" dia
												Tubing Vol: 0.143 gal
												drawdown Vol: 0
												purge > 0.143 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/15/13 Well ID: AE-2A

Weather Conditions: Sunny, 70°

Field Personnel: SLY

Purging Device & Serial # (pump type): peristaltic pump 1 NR

Reference Measuring Point (Top of PVC/Top of Casing): Top of PVC

Screen Interval (ft, ref. to measuring point): ~~12.5 - 22.5~~ 12.46 - 22.46 (SM)

Purging Start Time: 1313 (24 hour cycle)

Sample Time: 1352 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 22.55

Initial Water Level (ft, ref. to measuring point): 4.9

Tubing Intake (ft, ref. to measuring point): 17.5

Head Above Tubing Intake (ft, ref. measuring point): 12.6

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 60

Total Purge Volume (gallons): 0.5

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1350

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1401 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
13.18	5.1	0.2	0.2	NR	60	17.2	524	6.6	-60	4.7	40	
1322	5.1	0	0.2	NR	60	16.2	522	6.5	-73	3.0	21	
1326	5.1	0	0.2	NR	60	15.3	528	6.4	-73	2.8	19	
1330	5.1	0	0.2	NR	60	15.4	543	6.4	-72	2.6	17	
1334	5.1	0	0.2	NR	60	15.4	544	6.4	-75	2.2	17	
1338	5.1	0	0.2	NR	60	15.2	570	6.4	-78	1.9	16	
1342	5.1	0	0.2	NR	60	15.0	596	6.4	-80	1.8	16	
1346	5.1	0	0.2	NR	60	14.9	608	6.4	-80	1.7	16	
1350	5.1	0	0.2	NR	60	14.8	612	6.4	-81	1.7	16	
												2" well
												tubing vol = 0.0016 gal
												drawdown vol: 0.032 gal
												purge > 0.0385 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/15/13 Well ID: MW-10

Weather Conditions: Sunny - 70°

Field Personnel: SLH

Purging Device & Serial # (pump type): Peri Staltic Dump / NR

Reference Measuring Point (Top of PVC/Top of Casing): Top PVC

Screen Interval (ft, ref. to measuring point): ~~7.67 - 12.67~~ 7.67 - 12.67 (SM)

Purging Start Time: 1123 (24 hour cycle)

Sample Time: 1145 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 12.17

Initial Water Level (ft, ref. to measuring point): 6.1

Tubing Intake (ft, ref. to measuring point): 10.1

Head Above Tubing Intake (ft, ref. measuring point): 4

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 60

Total Purge Volume (gallons): 0.3

Indicator Parameter Stabilization: yes OR no (circle one) Time: 1143

Two Hour Time Limit Reached ? (Circle) Yes / No

Time at Sample Completion: 1154 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1127	6.2	0.1	0.1	NR	60	16	586	6.3	-77	2.3	15	
1131	6.2	0.0	0.1	NR	60	17	588	6.2	-68	2.1	20	
1135	6.2	0.0	0.1	NR	60	17	589	6.2	-70	1.9	19	
1139	6.2	0.0	0.1	NR	60	17	587	6.3	-70	1.9	17	
1143	6.2	0.0	0.1	NR	60	17	587	6.3	-68	1.9	18	
												2" well.
												tubing vol 0.039 gal
												drawdown 0.016 gal
												purge > 0.055 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C
2. Oxidation reduction potential.
3. Measuring point, screen interval and well depth are from Table 4 in the SAP.
4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".
5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/15/13 Well ID: AE-2B

Weather Conditions: Sunny, 70°

Field Personnel: Sue Yarina

Purging Device & Serial # (pump type): Peristaltic

Reference Measuring Point (Top of PVC/Top of Casing): top PVC

Screen Interval (ft, ref. to measuring point): ~~42.6~~ ~~42.5~~ 42.63-52.63 SM

Purging Start Time: 1222 (24 hour cycle)

Sample Time: 1256 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 52.80

Initial Water Level (ft, ref. to measuring point): 4.2

Tubing Intake (ft, ref. to measuring point): ~~47.5~~ 47.6 SM

Head Above Tubing Intake (ft, ref. measuring point): 43.3

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 60

Total Purge Volume (gallons): 0.6

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1255

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1309 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1227	5.6	1.4	1.4	NR	60	18.3	1196	6.9	-70	7.1	51	
1231	6.0	0.4	1.8	NR	60	16.8	1222	6.8	-99	5.2	21	
1235	6.2	0.2	2.0	NR	60	16.8	1223	6.8	-98	4.5	15	
1239	6.4	0.2	2.2	NR	60	16.3	1242	6.8	-106	3.9	14	
1243	6.8	0.4	2.6	NR	60	15.3	1236	6.8	-108	2.8	14	
1246	7.0	0.2	2.8	NR	60	15.1	1234	6.8	-110	2.4	13	
1249	7.2	0.2	3.0	NR	60	15.2	1232	6.8	-113	2.1	13	
1252	7.4	0.2	3.2	NR	60	15.2	1232	6.8	-116	2.0	13	
1255	7.6	0.2	3.4	NR	60	15.2	1233	6.9	-117	1.9	13	2" well
												tubing vol = 0.1352 gal
												drawdown = 0.544 gal
												purge < 0.6792
												excessive drawdown
												@ low purge.

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/15/13 Well ID: MW-9

Weather Conditions: Sunny, 70°

Field Personnel: Sue Vering

Purging Device & Serial # (pump type): Peristaltic pump

Reference Measuring Point (Top of PVC/Top of Casing): Top PVC

Screen Interval (ft, ref. to measuring point): 8.2-13.2

Purging Start Time: 1412 (24 hour cycle)

Sample Time: 1443 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 16.16

Initial Water Level (ft, ref. to measuring point): 7.4

Tubing Intake (ft, ref. to measuring point): 10.7

Head Above Tubing Intake (ft, ref. measuring point): 3.3

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 60

Total Purge Volume (gallons): 0.5

Indicator Parameter Stabilization: (yes) OR no (circle one) Time:

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: 1453 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1418	7.5	0.1	0.1	NR	60	17.4	583	6.2	-23	2.8	34	
1422	7.5	0	0.1	NR	60	17.7	553	6.1	-17	2.6	24	
1426	7.5	0	0.1	NR	60	17.6	555	6.1	-18	2.4	20	
1430	7.5	0	0.1	NR	60	17.5	553	6.2	-19	2.2	18	
1434	7.5	0	0.1	NR	60	17.6	553	6.2	-20	2.1	16	
1438	7.5	0	0.1	NR	60	17.6	552	6.2	-20	2.1	15	
1442	7.5	0	0.1	NR	60	17.6	553	6.2	-19	2.0	15	
												2" well
												tubing vol = 0.039 gal
												drawdown = 0.016 gal
												purge > 0.055 gal.

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/15/13 Well ID: AE-3A

Weather Conditions: Sunny, 70°

Field Personnel: Sue Hering

Purging Device & Serial # (pump type): Peristaltic pump

Reference Measuring Point (Top of PVC/Top of Casing): Top PVC

Screen Interval (ft, ref. to measuring point): ~~?~~ ~~20.12~~ 3 - 20.5 (5m)

Purging Start Time: 904 (24 hour cycle)

Sample Time: 937 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 20.06

Initial Water Level (ft, ref. to measuring point): 8.6

Tubing Intake (ft, ref. to measuring point): ~~15.5~~ 15.5 (5m)

Head Above Tubing Intake (ft, ref. measuring point): 6.7

Purge Rate (@ Stabilization (minimal or no Drawdown), mL/min: 60

Total Purge Volume (gallons): 0.5

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 935

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1005 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
911	9.1	0.5	0.5	NR	60	14.9	1000	6.7	-125	2.2	12	
915	9.2	0.1	0.6	NR	60	15.2	961	6.7	-122	2.1	14	
919	9.2	0	0.6	NR	60	14.9	958	6.7	-119	1.8	13	
923	9.2	0	0.6	NR	60	14.8	955	6.7	-118	1.5	12	
927	9.2	0	0.6	NR	60	14.7	955	6.7	-117	1.3	11	
931	9.2	0	0.6	NR	60	14.7	953	6.7	-116	1.2	11	
935	9.2	0	0.6	NR	60	14.6	953	6.7	-116	1.2	11	
												2" well
												tubing vol: 0.052 gal
												drawdown: 0.096 gal
												purge > 0.148 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/12/13 Well ID: FPC-9A

Weather Conditions: Sunny 80°

Field Personnel: Sue Herring

Purging Device & Serial # (pump type): Peristaltic Pump

Reference Measuring Point (Top of PVC/Top of Casing): Top PVC

Screen Interval (ft, ref. to measuring point): ~~58~~ 60.3-70.3 (5m)

Purging Start Time: 1420 (24 hour cycle)

Sample Time: 1545 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 68.4

Initial Water Level (ft, ref. to measuring point): 20.1

Tubing Intake (ft, ref. to measuring point): ~~63~~ 65.3 (ST)

Head Above Tubing Intake (ft, ref. measuring point): 45

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 80

Total Purge Volume (gallons): 1.25

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1544

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1546 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1424	20.2	0.1	0.1	NR	80	13	932	7.6	-141	1.8	170	
1428	20.2	0	0.1	NR	80	13	1036	7.0	-137	2.3	143	
1432	20.2	0	0.1	NR	80	13	1062	7.1	-136	1.6	135	
1436	20.2	0	0.1	NR	80	12	1082	7.1	-135	1.9	128	
1440	20.2	0	0.1	NR	80	12	1088	7.1	-136	1.6	117	
1444	20.2	0	0.1	NR	80	12	1082	7.0	-135	1.7	100	
1448	20.2	0	0.1	NR	80	12	1078	6.9	-133	1.8	59	
1452	20.2	0	0.1	NR	80	13	1074	6.8	-134	1.8	48	Casing
1456	20.2	0	0.1	NR	80	13	1057	6.8	-132	2.0	36	needs to be
1500	20.2	0	0.1	NR	80	13	1052	6.9	-131	2.1	39	replaced
1504	20.2	0	0.1	NR	80	13	1052	6.9	-131	1.1	32	
1508	20.2	0	0.1	NR	80	13	1049	6.9	-131	1.1	28	
1512	20.2	0	0.1	NR	80	13	1041	6.9	-130	1.4	18	FPC-9C
1516	20.2	0	0.1	NR	80	14	1045	6.9	-129	1.5	23	19.8
1520	20.2	0	0.1	NR	80	14	1035	7.0	-129	1.0	38	FPC-9B
1524	20.2	0	0.1	NR	80	13	1025	7.6	-127	1.3	26	20.5
1528	20.2	0	0.1	NR	80	13	1010	7.0	-125	1.0	38	

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/12/13 Well ID: PVC-9A

Weather Conditions: Sunny 80°

Field Personnel: Sue Perry

Purging Device & Serial # (pump type): Peristaltic pump

Reference Measuring Point (Top of PVC/Top of Casing): Top PVC

Screen Interval (ft, ref. to measuring point): ~~55-65~~ SM 60.3-70.3

Purging Start Time: 1420 (24 hour cycle)

Sample Time: 1545 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 68.4

Initial Water Level (ft, ref. to measuring point): 20.1

Tubing Intake (ft, ref. to measuring point): ~~SM~~ 65.3

Head Above Tubing Intake (ft, ref. measuring point): 45

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 80

Total Purge Volume (gallons): 1.25

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1544

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: 1546 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1532	20.2	0	0.1	NR	80	12.7	1004	6.8	-124	1.4	25	
1536	20.2	0	0.1	NR	80	12.5	999	6.9	-124	1.4	33	
1540	20.2	0	0.1	NR	80	12.5	995	6.9	-124	1.1	32	
1544	20.2	0	0.1	NR	80	12.6	990	6.9	-124	1.2	31	
												2" well
												tubing vol: 0.1768gal
												drawdown 0.016gal
												Purge 3 0.1928gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

initial sampling NOTES ON PAGE 2

Date: 8/19/13 Well ID: FPC-5A

Weather Conditions: SUNNY / SHADED Tubing & Cellu/ rain jacket

Field Personnel: MARCOTTE

Purging Device & Serial # (pump type): GEOPUMP

Reference Measuring Point (Top of PVC / Top of Casing): 74.30

Screen Interval (ft, ref. to measuring point): 56.8-66.8

Purging Start Time: 1200 (24 hour cycle) — see NOTES ON PAGE 2

Sample Time: 12:40 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 25.76

Initial Water Level (ft, ref. to measuring point): 2.19

Tubing Intake (ft, ref. to measuring point): 29.6

Head Above Tubing Intake (ft, ref. measuring point): 27.41

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 240

Total Purge Volume (gallons): 2.6

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1237

Two Hour Time Limit Reached ? (Circle) Yes / No

Time at Sample Completion: 1243 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1212	2.28	0.09	0.09	NR	288	NR	NR	NR	NR	NR	NR	
1215	2.28	0	0.09		290	14	1068	6.5	-125	1.3	5.2	decreased pump rate.
1220	2.25	-0.03	0.06		240	14	1047	6.3	-124	0.8	<5	
1225	2.25	0	0.06		240	14	1062	6.3	-124	0.7	<5	
1232	2.25	0	0.06		240	14	1063	6.3	-123	0.6	<5	purged w/ #15 masterflex
1237	2.25	0	0.06		242	14	1062	6.3	-123	0.6	<5	#15 masterflex is due to high solids load initially clogging #15 masterflex
												slowed pumping rate to ~100mL/min to collect samples.

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

FPC-SA page 2 of 2 Low flow sampling sheet

8/15/2013 1400

Attempted to install new 3/8" OD / 1/2" ID LDPE tubing to depth below ground surface specified in POP/EMP (59' BGS). Screen at 54-64' Bgs. Encountered obstruction at 25 feet below top of casing. Was eventually able to push tubing to 33 feet bgs. I assumed that tubing was stuck in this 1.5" ID well & pulled new tubing & tried to remove obstruction with weighted trouble hook. No luck. New tubing was then dropped in well to 33 feet bgs for sampling with the intention of collecting a sample as is & noting in annual report. Note that previous sampling tubing (0.17" ID / 1/4" OD LDPE) was installed to 22.7 below top of PVC casing.

8/19/2013 - 1100

Started sampling well and immediately pumped up sand and organic material (sand/peat mixture). This clogged the #16 master flex. Swapped pump heads on peristalic to purge with #15 masterflex. Pulled large amount of sediment/peat mixture & then pulled up tubing 29.6 tubing below top of casing & began collection of field parameters. at 1200.

Steve Marcotte

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date : 8/19/13 Well ID : AE4B

Weather Conditions : overcast

Field Personnel: marcotte

Purging Device & Serial # (pump type): Geopump

Reference Measuring Point (Top of PVC/Top of Casing): 77.50

Screen Interval (ft, ref. to measuring point): 36.9 - 46.7

Purging Start Time : 1600 (24 hour cycle)

Sample Time: 1634 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 46.10

Initial Water Level (ft, ref. to measuring point): 5.38

Tubing Intake (ft, ref. to measuring point): 41.7

Head Above Tubing Intake (ft, ref. measuring point): 36.32

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: Not Achieved.

Total Purge Volume (gallons): 0.8 gal

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1632

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1642 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1607	6.12	0.74	0.74	NR	80	NR	NR	NR	NR	NR	NR	Lowest pump setting.
1610	6.54	0.42	1.16		80	14	174	6.4	150	2.5	NR	
1615	6.96	0.42	1.58		80	14	175	6.3	170	2.5	7.0	
1620	7.40	0.44	2.02		80	14	174	6.2	205	2.3	<5	
1624	7.81	0.41	2.43		81	14	174	6.3	234	2.1	<5	
1628	8.20	0.39	2.82		81	14	174	6.3	249	2.1	<5	
1632	8.56	0.36	3.18	↓	80	14	174	6.3	270	2.1	<5	
1642	9.40											2" well
												tubing vol: 0.122 gal
												drawdown 0.508 gal
												purge > 0.63

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8-19-13 Well ID: AE-4A

Weather Conditions: Overcast

Field Personnel: Marcotte

Purging Device & Serial # (pump type): Geopump

Reference Measuring Point (Top of PVC/Top of Casing): 77.20

Screen Interval (ft, ref. to measuring point): 7.25 - 17.25

Purging Start Time: 1650 (24 hour cycle)

Sample Time: 1748 (24 hour cycle)

Well Depth (ft, ref. to measuring point) 16.05 (SM)

Initial Water Level (ft, ref. to measuring point): ~~5.41~~ 4.91

Tubing Intake (ft, ref. to measuring point): 12.25

Head Above Tubing Intake (ft, ref. measuring point): 7.34

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 80

Total Purge Volume (gallons): 1.2 gal

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1745

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1753 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1655	5.41	0.5	0.5	NR.	84	14	137	6.1	26	2.0	NR.	slowest pump setting
~~SM~~ 1700	5.61	0.2 (SM)	0.7	NR	82	14	135	6.2	33	1.0	54	
1705	5.59	-0.02	0.68	NR	81	14	135	6.1	35	0.9	43	
1710	5.59	0	0.68	NR	80	14	134	6.3	15	0.9	26	
1715	5.60	+0.01	0.69	NR.	82	14	134	~~6.3~~ SM	9	0.7	21	
1720	5.59	-0.01	0.68	NR	81	14	133	6.4	6	0.7	19	
1725	5.59	0	0.68	NR	82	14	133	6.4	2	0.7	16	
1730	5.59	0	0.68	NR	81	14	133	6.4	-5	0.7	14	
1735	5.59	0	0.68	NR	82	14	133	6.5	-5	0.7	12	
1740	5.59	0	0.68	NR	80	15	133	6.5	-9	0.7	12	
1745	5.59	0	0.68	NR	81	15	133	6.5	-11	0.7	13	2" well
												tubing vol: 0.0442 gal
												drawdown: 0.1088 gal
												purge > 0.153

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8-19-13 Well ID: FPC-6A

Weather Conditions: Sunny | Shaded

Field Personnel: Marcotte

Purging Device & Serial # (pump type): Geopump

Reference Measuring Point (Top of PVC/Top of Casing): SEE NOTE #1 9-10

Screen Interval (ft, ref. to measuring point):

Purging Start Time: 1414 (24 hour cycle)

sample | dup | ms | msd → Sample Time: 1442 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 9.97

Initial Water Level (ft, ref. to measuring point): 7.98

Tubing Intake (ft, ref. to measuring point): 9.0

Head Above Tubing Intake (ft, ref. measuring point): 1.02

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 92

Total Purge Volume (gallons): 0.8

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1440

Two Hour Time Limit Reached ? (Circle) Yes (No)

Time at Sample Completion: 1502 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1419	8.03	0.05	0.05	NR	92	17	732	6.5	-61	2.1	NR	
1425	8.03	0.00	0.05	↓	92	17	712	6.5	-51	1.7	<5	1.5" well point
1430	8.03	0.00	0.05	↓	92	17	707	6.5	-49	1.5	<5	tubing vol: 0.039
1435	8.04	0.01	0.06	↓	92	17	704	6.5	-48	1.5	<5	drawdown: 0.0054
1440	8.04	0.00	0.06	↓	93	17	700	6.5	-48	1.4	<5	purge > 0.8444
												NOTE #1
												FPC-6A elevation
												& stickup not
												consistent with
												field observation.
												Appears that repl.
												point was installed
												as other point
												is dry.
												point monitored is
												9.97' deep & stickup
												is 5.50'

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.
3. Measuring point, screen interval and well depth are from Table 4 in the SAP.
4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".
5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/19/13 Well ID: FPC-7A

Weather Conditions: Sunny/Shaded

Field Personnel: Marcotte

Purging Device & Serial # (pump type): Geopump

Reference Measuring Point (Top of PVC/Top of Casing): 82.08'

Screen Interval (ft, ref. to measuring point): 19-24

Purging Start Time: 0905 (24 hour cycle)

Sample Time: 0948 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 23.95

Initial Water Level (ft, ref. to measuring point): 1.35

Tubing Intake (ft, ref. to measuring point): 21.5

Head Above Tubing Intake (ft, ref. measuring point): 20.15

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 125

Total Purge Volume (gallons): 1.4

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 0946

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: 0952 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
0914	1.37	0.02	0.02	NR	116	13	146	6.1	217	5.0	NR	
0920	1.37	0	0.02	↓	116	13	145	6.1	252	5.0	<5	inc. flow rate.
0925	1.37	0	0.02		124	13	144	6.0	283	5.0	<5	
0930	1.37	0	0.02		125	13	143	6.0	290	5.0	<5	
0936	1.37	0	0.02		126	13	144	6.0	315	4.9	<5	
0941	1.38	0	0.02		124	13	144	6.1	334	4.9	<5	
0946	1.38	0	0.02	↓	125	13	143	6.0	343	4.9	<5	2" well
												tubing vol: 0.0676 gal
												drawdown: 0.0032 gal
												purge > 0.0708 gal

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/16/13 Well ID: mw-6 (6" diameter STATIC 10.75' ← Initial Water Level (ft, ref. to measuring point)

Weather Conditions: Sunny/shaded.

Field Personnel: marcotte

Purging Device & Serial # (pump type): Geopump

Reference Measuring Point (Top of PVC/Top of Casing): TOC (metal) 6" dia well

Screen Interval (ft, ref. to measuring point): 27.1 - 186.1

Well Depth (ft, ref. to measuring point): 171' tubing in bottom of well?

Tubing Intake (ft, ref. to measuring point): 152.1

Head Above Tubing Intake (ft, ref. measuring point): 141.35

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 74

Total Purge Volume (gallons): 2.5

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 18:18

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Purging Start Time: 1615 (24 hour cycle)

Sample Time: 1820 (24 hour cycle)

Time at Sample Completion: 1829 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
1628	10.86	0.11	0.11	NR	102	12	237	5.9	78	2.2	NR	0.4 gal to
1635	10.89	0.03	0.14		104	13	236	5.6	108	1.6	36	purge 1 volume
1654	10.89	0.0	0.14		74	13	235	5.7	117	0.9	38	of tubing
1700	10.88	-0.01	0.13		72	14	235	5.8	112	0.8	32	6" well
1732	10.88	0	0.13		72	14	236	5.8	119	0.9	34	tubing vol: @ 40 gal
1748	10.88	0	0.13		72	14	236	5.8	119	1.0	33	drawdown: 0.1911 gal
1756	10.88	0	0.13		73	13	235	5.8	118	0.8	36	purge > 0.591 gal
1802	10.88	0	0.13		72	13	236	5.8	120	0.8	35	
1809	10.88	0	0.13		73	13	234	5.8	120	0.8	29	
1813	10.88	0	0.13		72	13	234	5.8	121	0.8	28	Fine particles (Fe/Mn?)
1818	10.88	0	0.13	V	72	13	235	5.8	120	0.8	28	in water. Metal
												results may be high
												likely due to tubing
												being installed 24hrs
												prior to sampling

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

LOW FLOW WELL SAMPLING WORKSHEET

For use with Peristaltic Pumps

Coakley Landfill Superfund Site, North Hampton and Greenland, New Hampshire

Date: 8/13/2013 Well ID: OW-2

Weather Conditions: rain / overcast.

Field Personnel: Marcotte

Purging Device & Serial # (pump type): Peristaltic.

Reference Measuring Point (Top of PVC/Top of Casing): PVC casing

Screen Interval (ft, ref. to measuring point): ~~11.2 bgs~~ 11.2 - 16.2 bgs (BW)

Purging Start Time: 11:50 (24 hour cycle)

Sample Time: 13:15 (24 hour cycle)

Well Depth (ft, ref. to measuring point): 16.84 (2012)

Initial Water Level (ft, ref. to measuring point): 6.11

Tubing Intake (ft, ref. to measuring point): (11.5)

Head Above Tubing Intake (ft, ref. measuring point): 5.39'

Purge Rate @ Stabilization (minimal or no Drawdown), mL/min: 108 ml/min

Total Purge Volume (gallons): 3 gallons.

Indicator Parameter Stabilization: (yes) OR no (circle one) Time: 1334

Two Hour Time Limit Reached ? (Circle) Yes / (No)

Time at Sample Completion: 13:49 (24 hour cycle)

Clock Time (24 HR)	Water Level (ft)	Drawdown (ft)	Cumulative Drawdown (ft)	Pump Speed	Purge Rate (ml/min)	Temp +/- 3% (°C)	Spec. Cond.[1] +/- 3% (µS/cm)	pH +/- 0.1 units	ORP[2] +/-10 (mV)	DO +/- 10% if > 0.5 (mg/L)	Turbidity +/- 10% if > 5 (NTU)	Comments/Adjustments
12.02	6.22	0.11	/	/	102	15.	584	6.12	-59	1.86	/	
12.06	6.22	~~0.16~~	0.11	/	102	15	584	6.09	-59	1.49	5.75	
12.10	6.22	0	0.11	/	/	15	584	6.11	-59	~~1.61~~	/	large bubble on DO
12.17	6.22	0	0.11	/	102	15	585	6.1	-60	1.21	6.21	
12:25	6.22	0	0.11	/	/	15	585	6.2	-60	1.07	5.84	
12:31	6.22	0	0.11	/	104	15	585	6.2	-62	0.97	5.05	
12:37	6.22	0	0.11	/	104	15	585	6.2	-62	0.96	4.80	
12.42	6.22	0	0.11	/	102	15	585	6.2	-62	0.91	4.49	
12.50	6.22	0	0.11	/	106	15	586	6.2	-62	0.85	5.02	
13.00	6.22	0	0.11	/	107	15	586	6.2	-61	0.81	5.39	
13.05	6.22	0	0.11	/	107	15	586	6.2	-61	0.79	5.46	
13.06	6.22	0	0.11	/	/	15	586	6.2	-60	0.90	7.18	1.25" well
13.20	6.22	0	0.11	/	108	15	587	6.2	-60	0.76	4.44	tubing vol = 0.0416 gal
13.28	6.22	0	0.11	/	108	15	586	6.2	-60	0.73	4.86	Drawdown = 0.0066 gal
13.34	6.22	0	0.11	/	108	15	586	6.2	-60	0.72	4.41	purge > 0.0482 gal
~~13.36~~												

/ = NR

Notes: 1. µSiemens per cm (same as µmhos/cm) at 25 °C

2. Oxidation reduction potential.

3. Measuring point, screen interval and well depth are from Table 4 in the SAP.

4. When recording pH and dissolved oxygen data, only use one decimal place. When recording specific conductance, temperature, turbidity, and ORP data, record only whole numbers. When turbidity data is less than 5 NTU, data should be recorded as "< 5" or "less than 5". When DO data is less than 0.5 mg/L, data should be recorded as "<0.5" or "less than 0.5".

5. "NR" indicates no reading taken.

Sampler's Signature

APPENDIX C
Laboratory Analytical Reports

Eastern Analytical, Inc.

Professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123528
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/14/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — 8.30.13 — 144

Lorraine Olashaw, Lab Director | Date | # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123528**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1.4 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123528.01	Trip Blank	8/14/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123528.02	GW-MW-4-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123528.03	GW-MW-4-Dup-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123528.04	GW-OP-2-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT

EAI ID#: **123528**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/14/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

No field QC was designated for this sample delivery group.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

1,4-DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

METALS

The LCS deviated high from acceptability criteria for antimony (Sb). Antimony was not detected above the reporting limit in samples.

LABORATORY REPORT

EAI ID#: **123528**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank	GW-MW-4 -0813	GW-MW-4-Dup-0813	GW-OP-2 -0813
Lab Sample ID:	123528.01	123528.02	123528.03	123528.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/29/13	8/13/13	8/13/13	8/13/13
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13
Units:	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/15/13	8/15/13	8/15/13	8/15/13
Analyst:	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.25	**4.6**	**4.8**	**1.2**
4-Bromofluorobenzene (surr)	**103 %R**	**106 %R**	**105 %R**	**106 %R**
Toluene-d8 (surr)	**94 %R**	**100 %R**	**99 %R**	**99 %R**

QC REPORT

EAI ID#: **123528**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.2 (84 %R)	4.3 (85 %R) (1 RPD)	ug/l	8/15/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	103 %R	104 %R	103 %R	% Rec	8/15/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	93 %R	94 %R	99 %R	% Rec	8/15/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123528**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-4-0813	GW-MW-4-Dup-0813	GW-OP-2-0813					
Lab Sample ID:	123528.02	123528.03	123528.04					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13					
Date Received:	8/14/13	8/14/13	8/14/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Aluminum	**0.69**	**0.85**	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	**0.053**	**0.053**	**0.20**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.070**	**0.070**	**0.013**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**55**	**56**	**28**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	**0.003**	**0.004**	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	**0.004**	**0.004**	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	**0.004**	**0.004**	**0.004**	AqTot	mg/L	8/21/13	200.8	DS
Iron	**21**	**21**	**37**	AqTot	mg/L	8/21/13	200.8	DS
Lead	**0.002**	**0.002**	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**15**	**15**	**5.0**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**0.97**	**0.96**	**0.98**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.008**	**0.009**	**0.006**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**24**	**25**	**9.0**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	**0.002**	**0.002**	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**20**	**20**	**10**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	**0.008**	**0.009**	< 0.005	AqTot	mg/L	8/21/13	200.8	DS

QC REPORT

EAI ID#: **123528**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	11 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.2 (116 %R)		mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	0.97 (97 %R)		mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	1.0 (104 %R)		mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	11 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	0.98 (98 %R)		mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.97 (97 %R)		mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.91 (91 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	11 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	0.99 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	11 (97 %R)		mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (104 %R)		mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (109 %R)		mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	11 (98 %R)		mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.1 (107 %R)		mg/L	8/21/13	85 - 115	20	200.8

The laboratory control sample for Antimony did not meet the acceptance criteria. The high bias has no impact on the data reported as no Antimony was found in any of the samples.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123528**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123528.04	< 0.05	8.9 (81 %R)	8.9 (81 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123528.04	< 0.001	1.2 (118 %R)	1.2 (118 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123528.04	0.20	1.1 (91 %R)	1.1 (90 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123528.04	0.013	0.98 (97 %R)	0.99 (97 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123528.04	< 0.001	0.84 (84 %R)	0.84 (84 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123528.04	28	37 (83 %R)	37 (82 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123528.04	< 0.001	0.95 (95 %R)	0.97 (97 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123528.04	< 0.001	0.79 (79 %R)	0.79 (79 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123528.04	< 0.001	0.75 (75 %R)	0.76 (76 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123528.04	0.004	0.80 (80 %R)	0.80 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123528.04	37	47 (89 %R)	47 (88 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123528.04	< 0.001	1.0 (101 %R)	0.99 (99 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123528.04	5.0	15 (91 %R)	15 (93 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123528.04	0.98	2.0 (105 %R)	2.0 (107 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123528.04	< 0.0001	0.0011 (107 %R)	0.0010 (103 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123528.04	0.006	0.80 (80 %R)	0.80 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123528.04	9.0	20 (100 %R)	20 (99 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123528.04	< 0.001	0.93 (93 %R)	0.91 (91 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123528.04	< 0.001	0.83 (83 %R)	0.84 (84 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123528.04	10	21 (102 %R)	22 (107 %R) (5 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123528.04	< 0.001	1.0 (102 %R)	1.0 (101 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123528.04	< 0.005	0.82 (82 %R)	0.82 (82 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123528.04	< 0.005	0.85 (85 %R)	0.86 (86 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

123528

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME 7/29/13 11:50	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2	524.2 MTBE ONLY (8260B)	524.2 BTEX VTICS 624 1,4 DIOXANE	8021B · BTEX HALOS	8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP ABN A BN PAH	TPH8100 L1 L2	8015B DRO MAEPH	PEST 608 PCB 608 PEST 8081A PCB 8082	OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.	Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	BOD CBOD T. ALK.	TKN NH_3 T. PHOS. O. PHOS.	pH T. RES. CHLORINE	COD PHENOLS TOC DOC	TOTAL CYANIDE TOTAL SULFIDE	REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM	ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: TAL METALS	1,4-DIOXANE SIM		# OF CONTAINERS	NOTES MEOH VIAL #
TRIP BLANK ~~TRIP BLANK~~	8/13/13 ~~1437~~	X	X																									X		2	
~~TRIP BLANK~~	~~8/13/13 1437~~	~~X~~	~~X~~		~~X~~																									~~2~~ 1	SBM
GW-MW-4-0813	8/13/13 1530	GW	G																									X	X	3	
GW-MW-4DUP-0813	8/13/13 1540	GW	G																									X	X	3	
GW-OP-2-0813	8/13/13 1345	GW	G																									X	X	3	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER																															
PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH	PAs 7/29/13 EAI PREPPED																											N	X		

N

PROJECT MANAGER: Steve Marcotte
COMPANY: Summit Env. Consultants
ADDRESS: 640 Main Street
CITY: Lewiston STATE: ME ZIP: 04240
PHONE: 207-795-6609 EXT.:
FAX:
E-MAIL: smarcotte@summitenv.com
SITE NAME: Coakley Landfill
PROJECT #: ~~Env~~ 12-3173
STATE: (NH) MA ME VT OTHER:
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: Superfund.
QUOTE #: PO #:

DATE NEEDED:

QA/QC
REPORTING LEVEL
A B C
(SPECIAL)
PRESUMPTIVE CERTAINTY

REPORTING OPTIONS
PRELIMS: (YES) OR NO SBM
IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS
NO FAX E-MAIL (PDF) EQUIS

TEMP. 1.4 °C
ICE? (YES) NO

SAMPLER(S): Steve Marcotte

RELINQUISHED BY: Steve Marcotte	DATE: 8/14/13	TIME: 10:20	RECEIVED BY:
RELINQUISHED BY:	DATE: 8/14/13	TIME: 11:35	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP Fe, Mn Pb, Cu
OTHER METALS: TAL metal (23 totals) See QAPP
SAMPLES FIELD FILTERED? ☐ YES ☒ NO
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
NO VOCs in cooler only 1,4-Dioxane. SBM
SITE HISTORY:
SUSPECTED CONTAMINATION:
FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Eastern Analytical, Inc.
professional laboratory & drilling services

123528
C Level Package Data

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VB

Date: 5/10/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAIS1001	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMSID	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120264.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120264.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	15					VOC			
36	36	23					VOC			
37	37	24				↓	VOC			
38	38	120271.02					VOC			
39	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/13

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

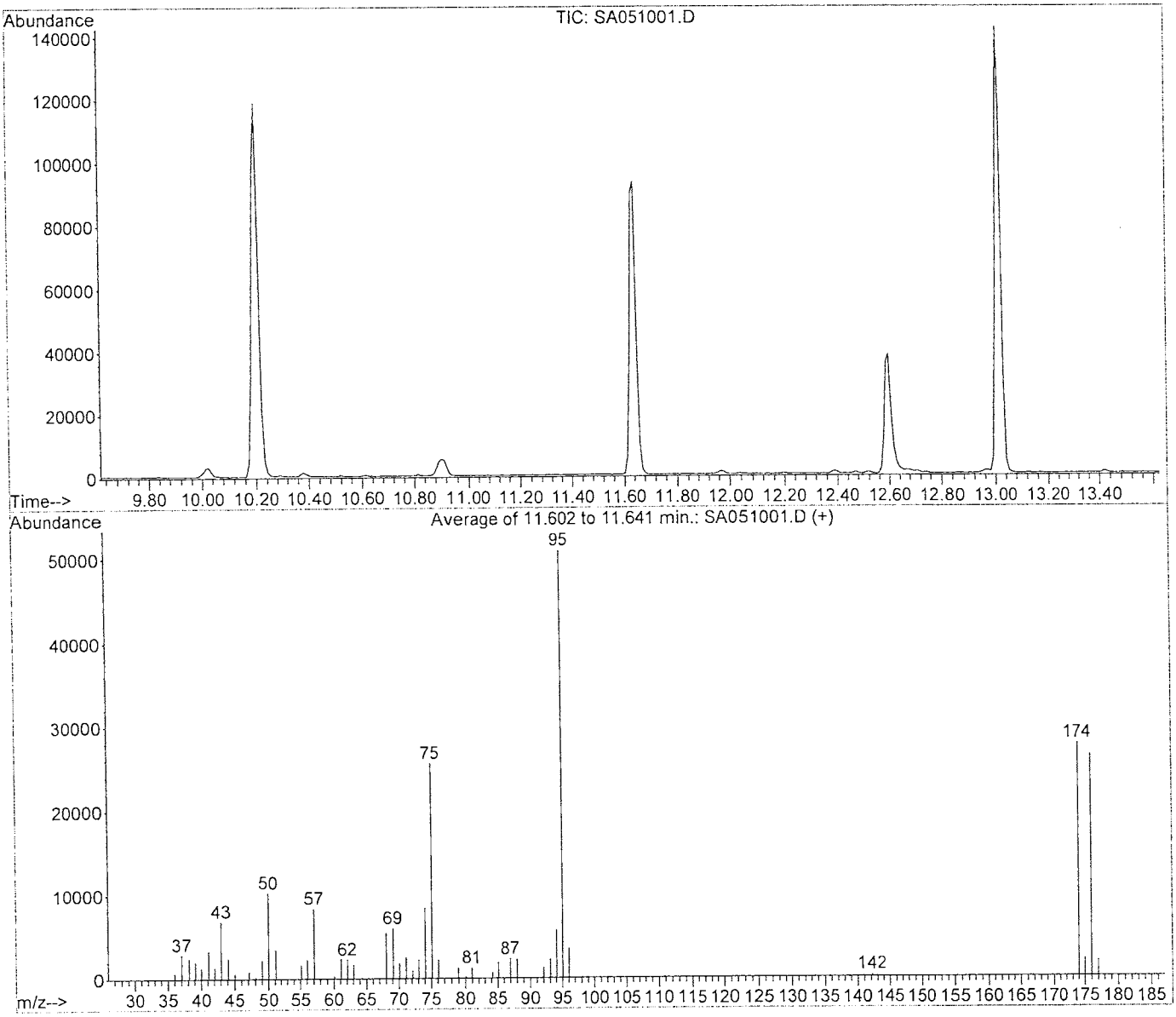
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

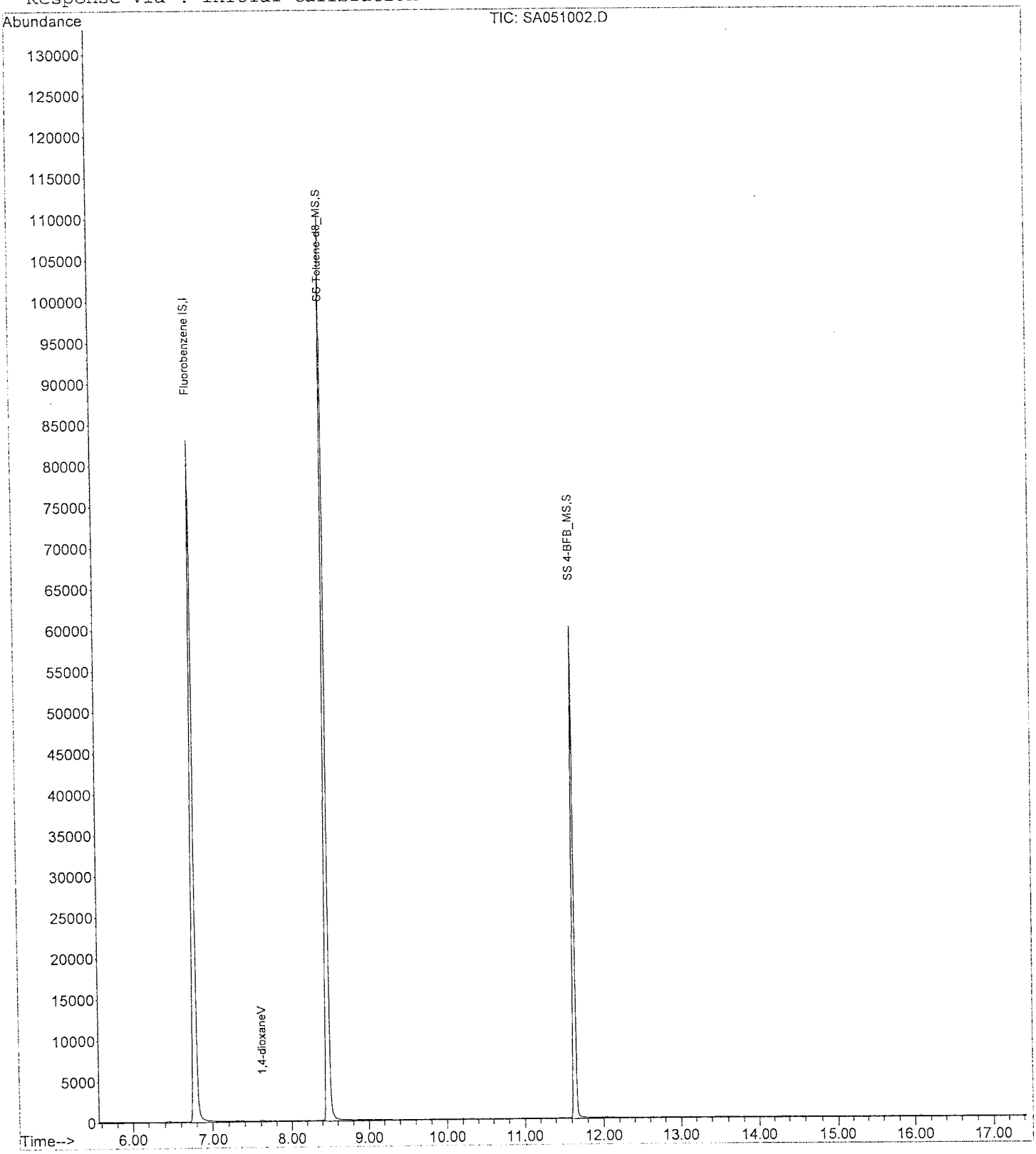
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	160084	9.79	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS	11.64	95	56746	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

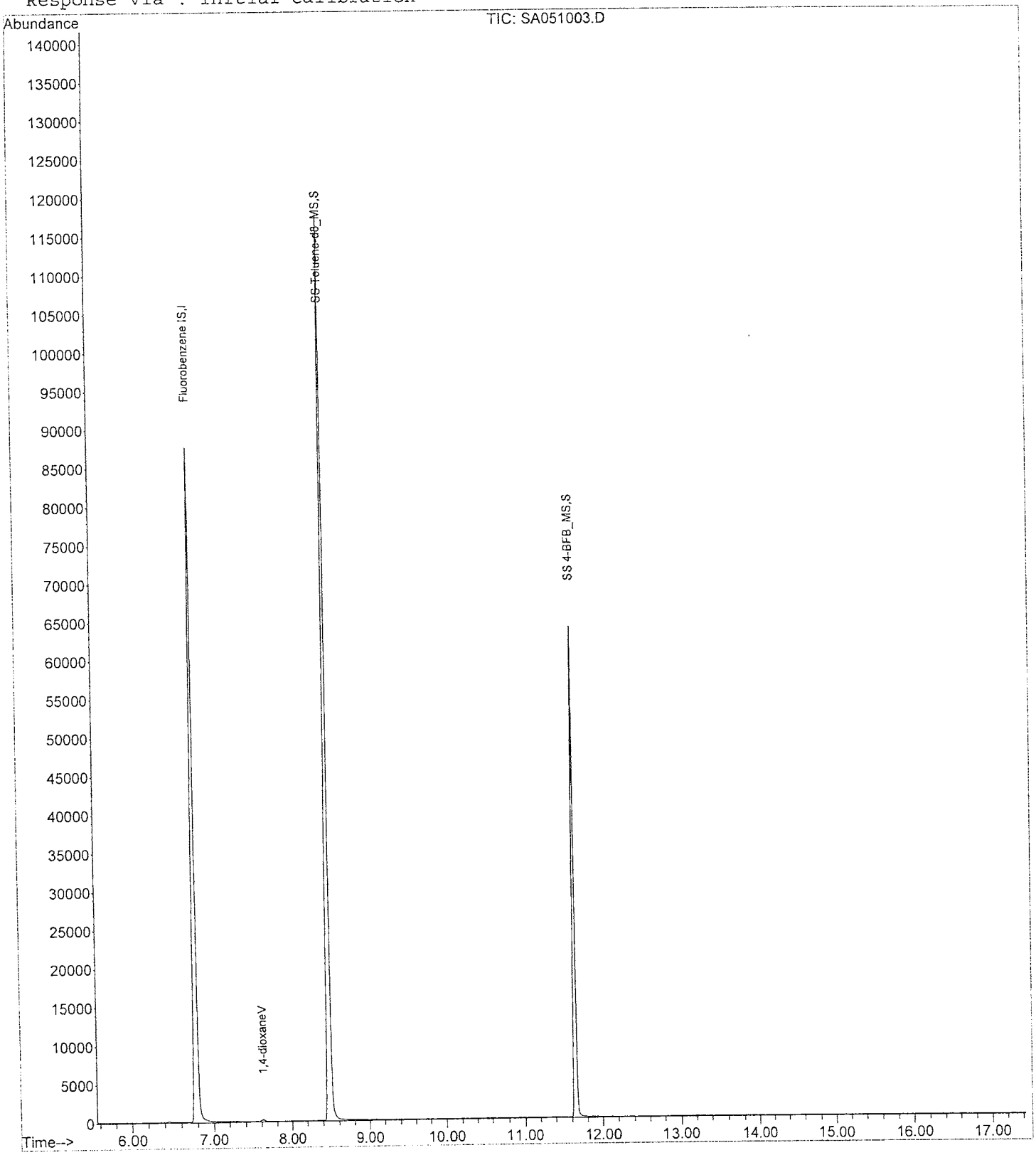
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	170558	9.82	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.19%		
4) SS 4-BFB_MS		11.64	95	59943	10.06	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	100.64%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

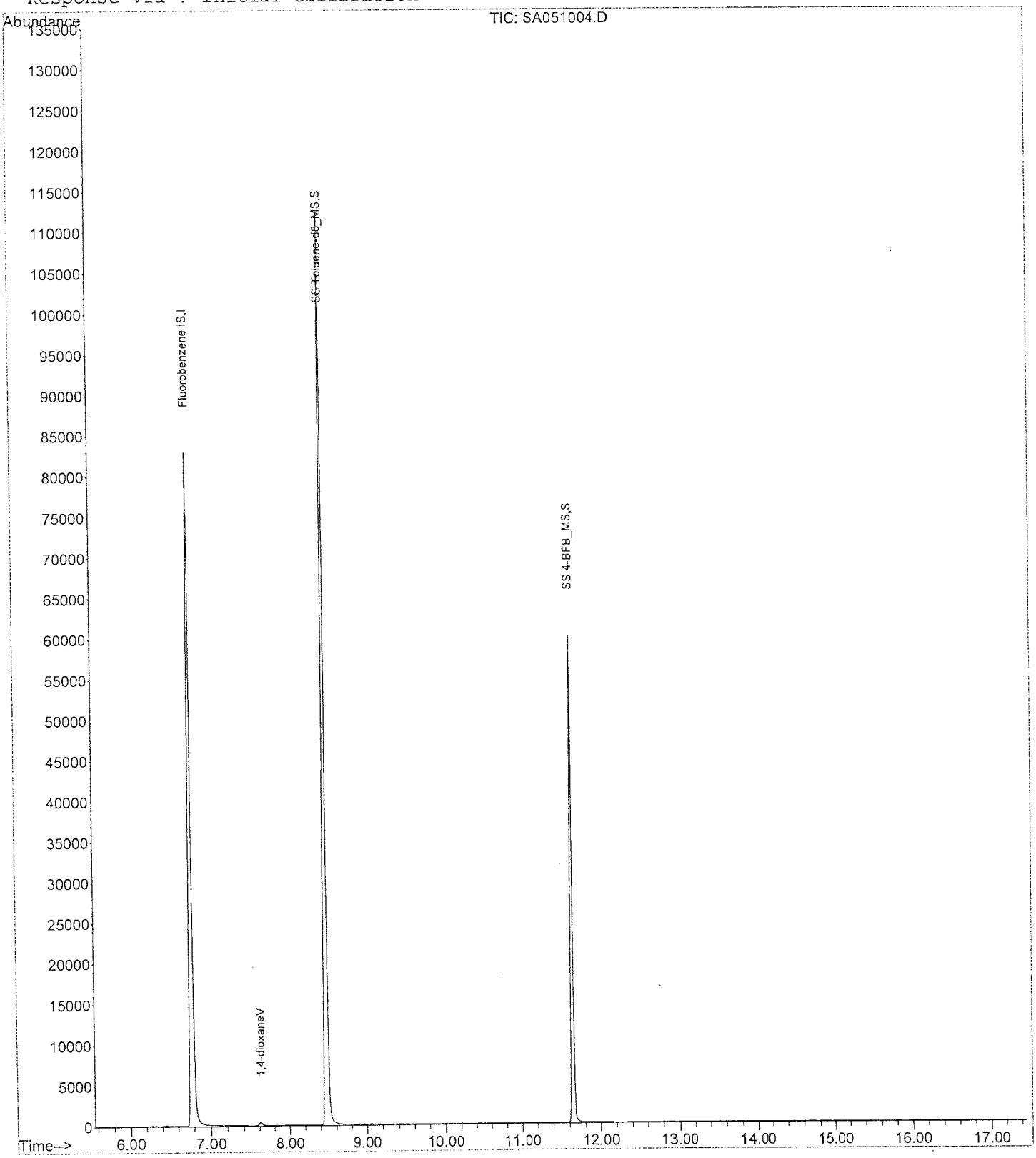
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051004.D 2SIM0510.M Wed Aug 21 13:48:57 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

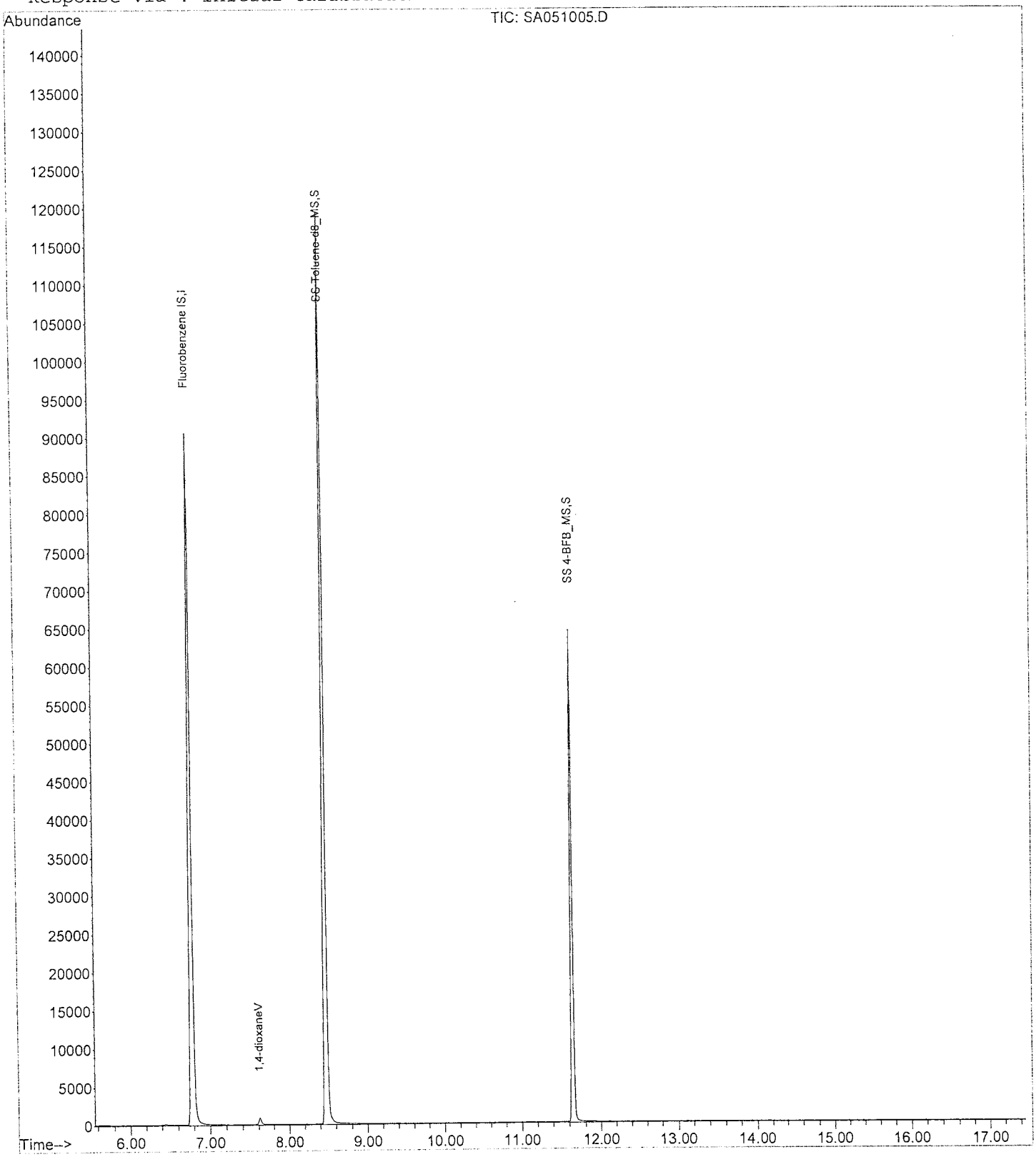
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170943	9.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.75%			
4) SS 4-BFB_MS	11.64	95	59771	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

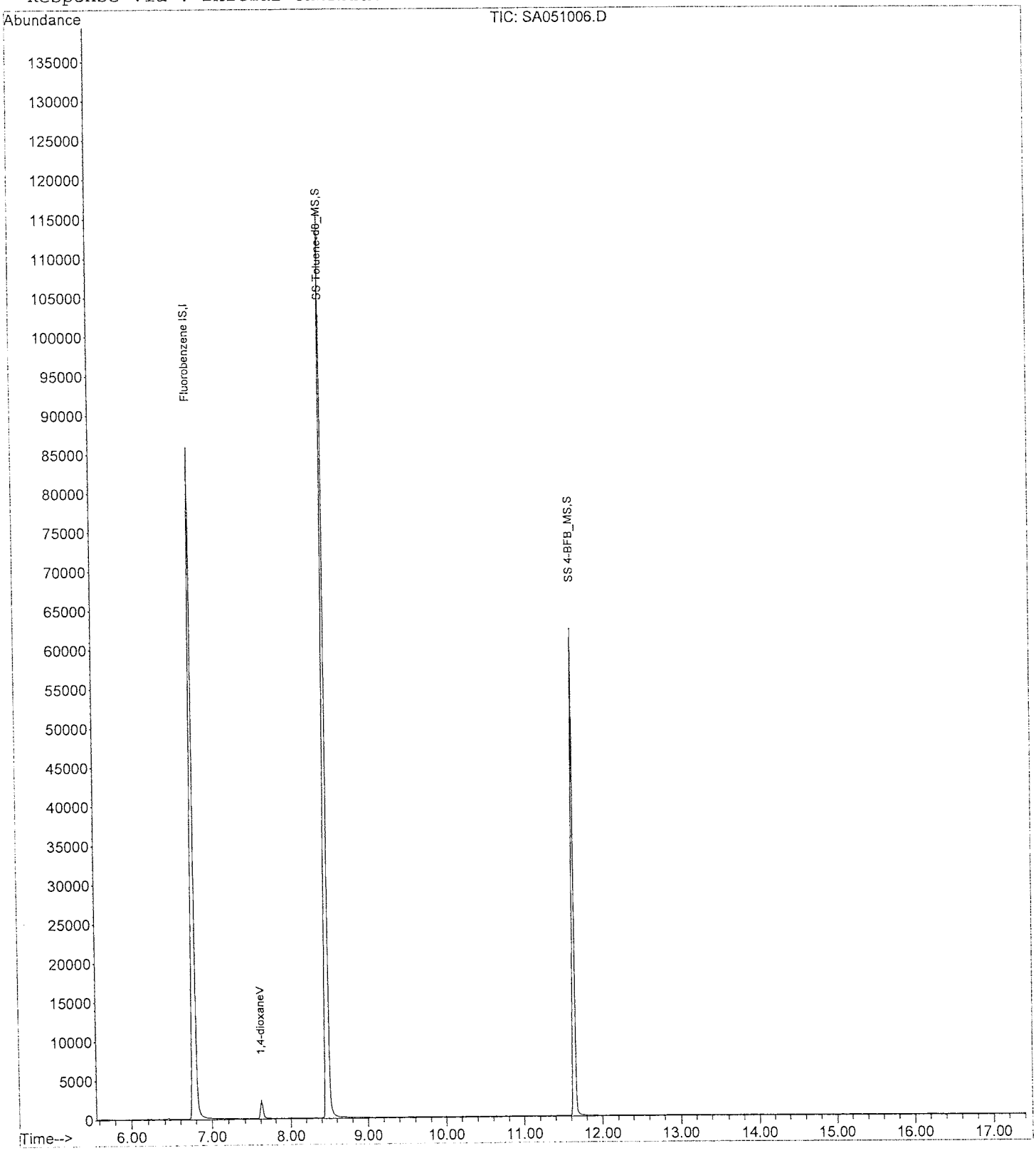
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

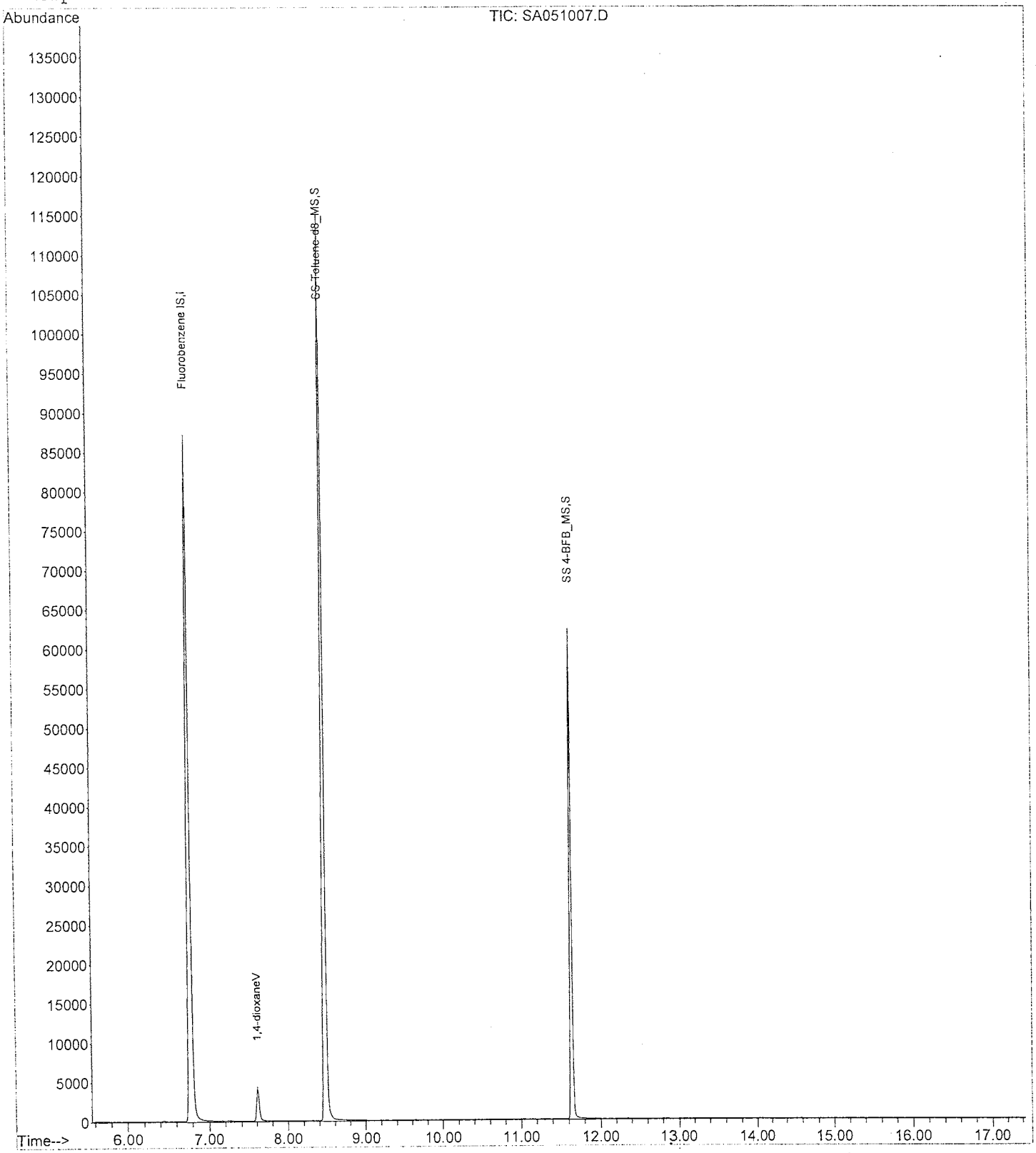
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	159671	9.27	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	92.72%		
4) SS 4-BFB_MS			11.64	95	58595	9.92	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.24%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

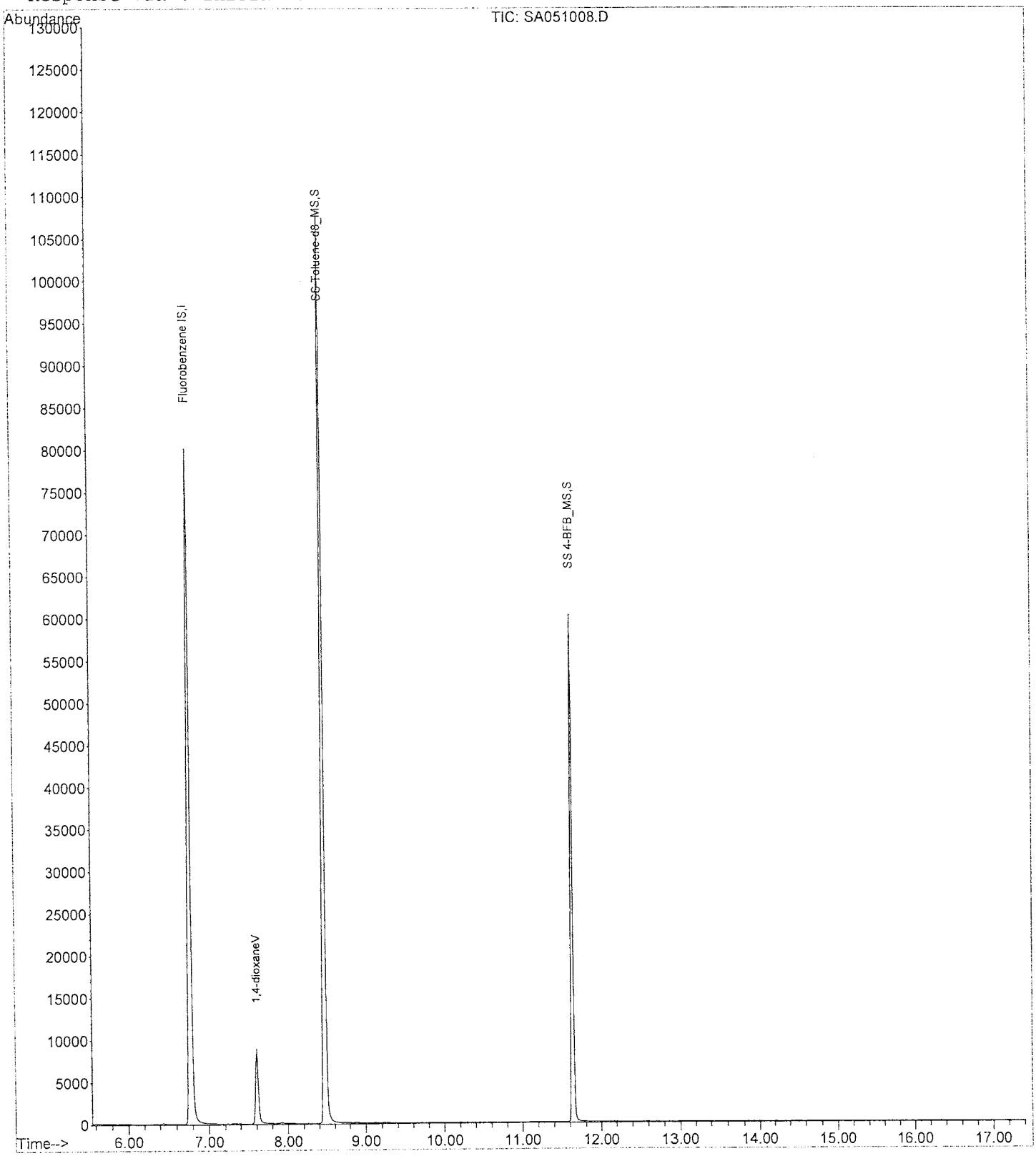
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	149017	9.37 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%		
4) SS 4-BFB_MS	11.64	95	55675	10.21 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

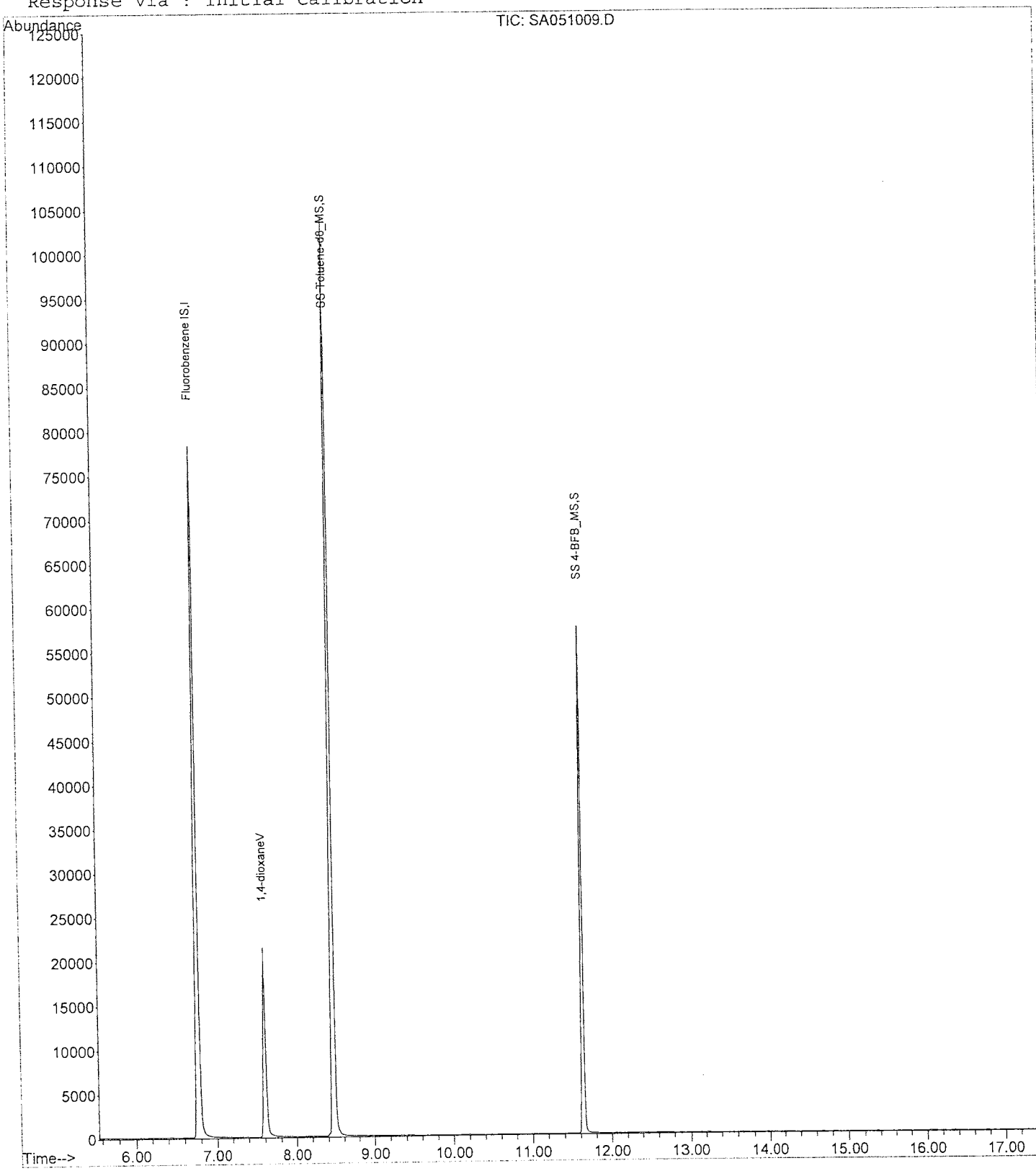
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	148830	9.89	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS		11.63	95	52945	10.26	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

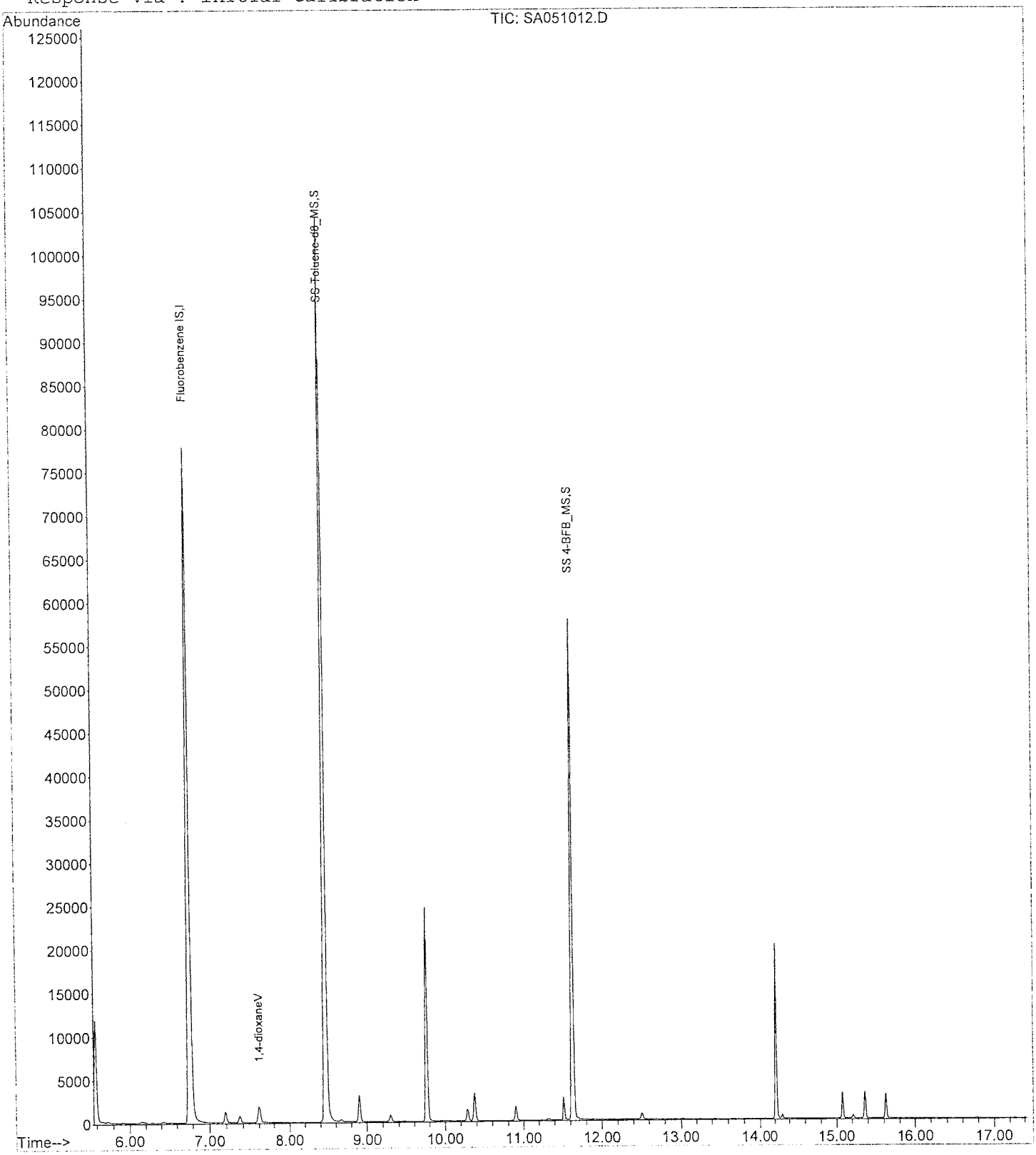
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.14%		
4) SS 4-BFB_MS			11.63	95	52679	10.31	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	103.13%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



8260B SIM 1,4 Dioxane

Sample and QC Data

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VG

Date: 8/15/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	5A0801	BRB		✓		X1	VOCMSI			
2	2	STD5		✓			VOCSIM	2SIMSID		
3	3	LCS5		✓			VOC			
4	4	LCSD5		✓			VOC			
5	5	Blank		✓			VOC			
6	6	123507.11		✓			VOC			
7	7	12		✓			VOC			
8	8	14		✓			VOC			
9	9	123508.01		✓			VOC			
10	10	02		✓			VOC			
11	11	03		✓			VOC			
12	12	04		✓			VOC			
13	13	123430.01			✓		VOC			
14	14	02			✓		VOC			
15	15	03			✓		VOC			
16	16	STD0.25		✓			VOC			
17	17	BRB		✓			VOCMSI			
18	18	STD5		✓			VOCSIM			
19	19	LCS5		✓			VOC			
20	20	LCSD5		✓			VOC			
21	21	Blank		✓			VOC			
22	22	123529.04		✓			VOC			
23	23	06		✓			VOC			
24	24	07		✓			VOC			
25	25	08		✓			VOC			
26	26	09		✓			VOC			
27	27	123513.02		✓			VOC			
28	28	01		✓			VOC			
29	29	BLK 8/13			✓		VOC			
30	30	LCS 8/13			✓		VOC			
31	31	LCSD 8/13			✓	4	VOC			
							VOC			
							VOC			
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							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by VG 8/16/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1513\SA081501.D
Tune Time : 15 Aug 2013 8:37 am

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1513\SA081502.D

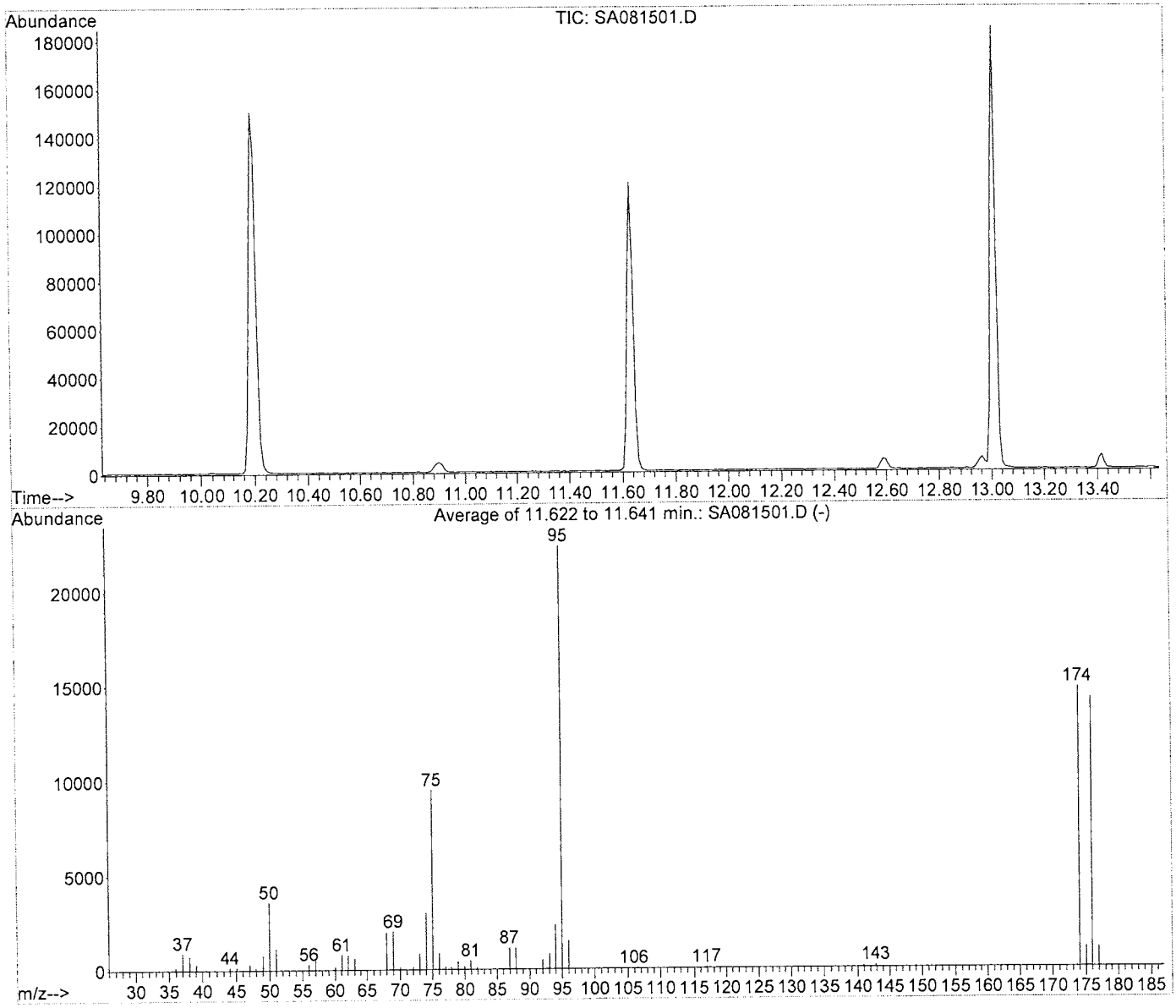
215601

File	Sample	Surrogate Recovery %		Internal Standard Responses
SA081502.D	STD5	93	104	215601
SA081503.D	LCS5	94	104	219073
SA081504.D	LCSD	99	103	216898
SA081505.D	BLANK	93	103	219297
SA081506.D	123507.11	92	101	222928
SA081507.D	123507.12	98	104	218015
SA081508.D	123507.14	95	104	210053
SA081509.D	123528.01	94	103	212088
SA081510.D	123528.02	100	106	208516
SA081511.D	123528.03	99	105	206464
SA081512.D	123528.04	99	106	206646
SA081513.D	123430.01	99	106	206593
SA081514.D	123430.02	98	107	199236
SA081515.D	123430.03	95	109	186476
SA081516.D	tSTD0.25	100	109	185228

t - fails 12hr time check * - fails criteria

Created: Fri Aug 16 08:40:44 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081501.D Vial: 1
Acq On : 15 Aug 2013 8:37 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.622 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	3593	PASS
75	95	30	60	42.6	9511	PASS
95	95	100	100	100.0	22346	PASS
96	95	5	9	6.8	1511	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.2	14785	PASS
175	174	5	9	7.3	1073	PASS
176	174	95	101	96.1	14213	PASS
177	176	5	9	7.3	1041	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081502.D Vial: 2
Acq On : 15 Aug 2013 9:26 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	136	0.00
2		1,4-dioxaneV	5.000	4.121	17.6	111	0.00
3	S	SS Toluene-d8_MS	10.000	9.310	6.9	124	0.00
4	S	SS 4-BFB_MS	10.000	10.434	-4.3	142	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Wed Aug 21 13:41:04 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081502.D Vial: 2
Acq On : 15 Aug 2013 9:26 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 10:20:30 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

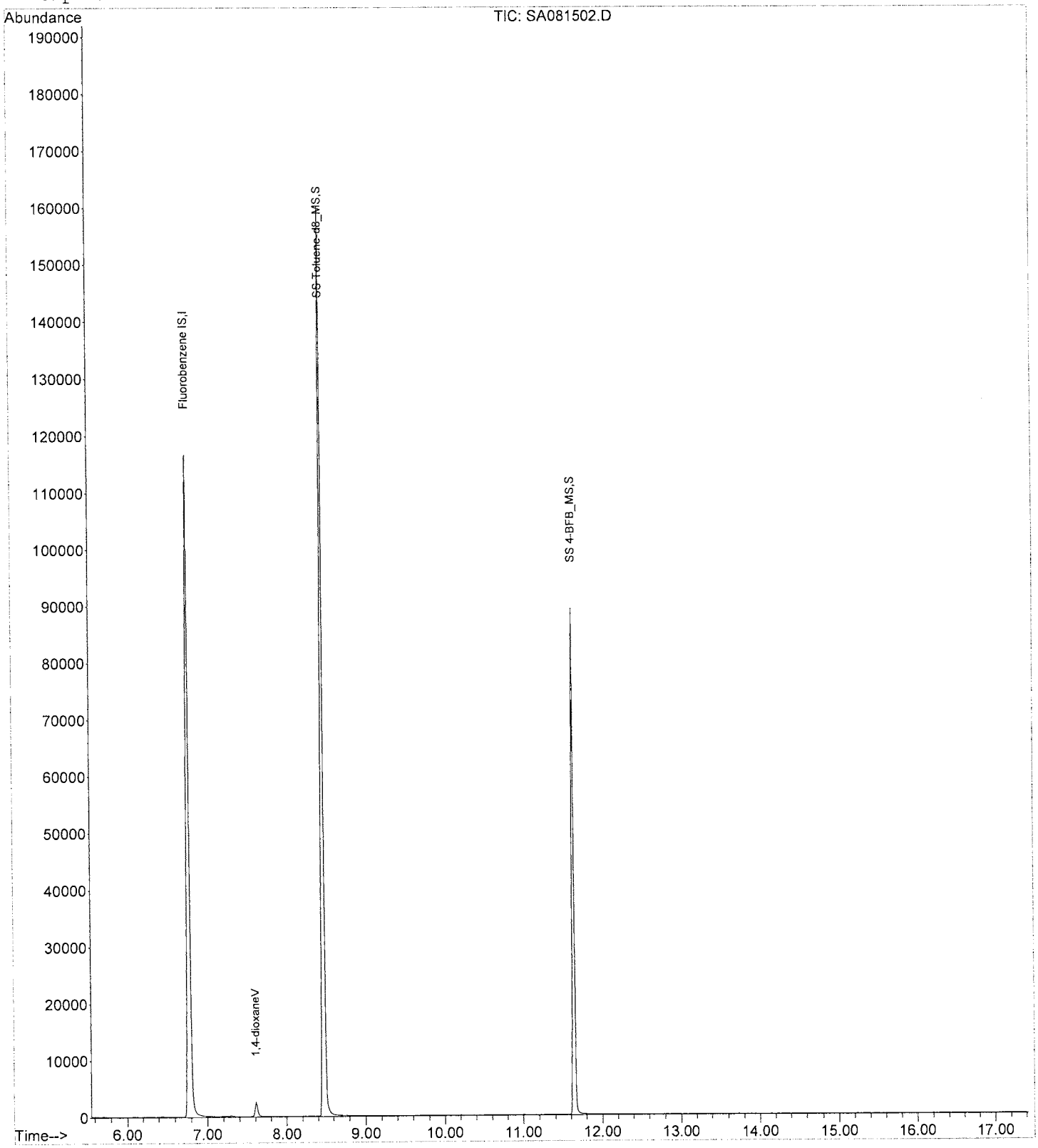
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	215601	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	208355	9.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.10%			
4) SS 4-BFB_MS	11.64	95	83650	10.43	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.34%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3729	4.121	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081502.D Vial: 2
Acq On : 15 Aug 2013 9:26 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 10:18 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081503.D Vial: 3
Acq On : 15 Aug 2013 10:15 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 13:22:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

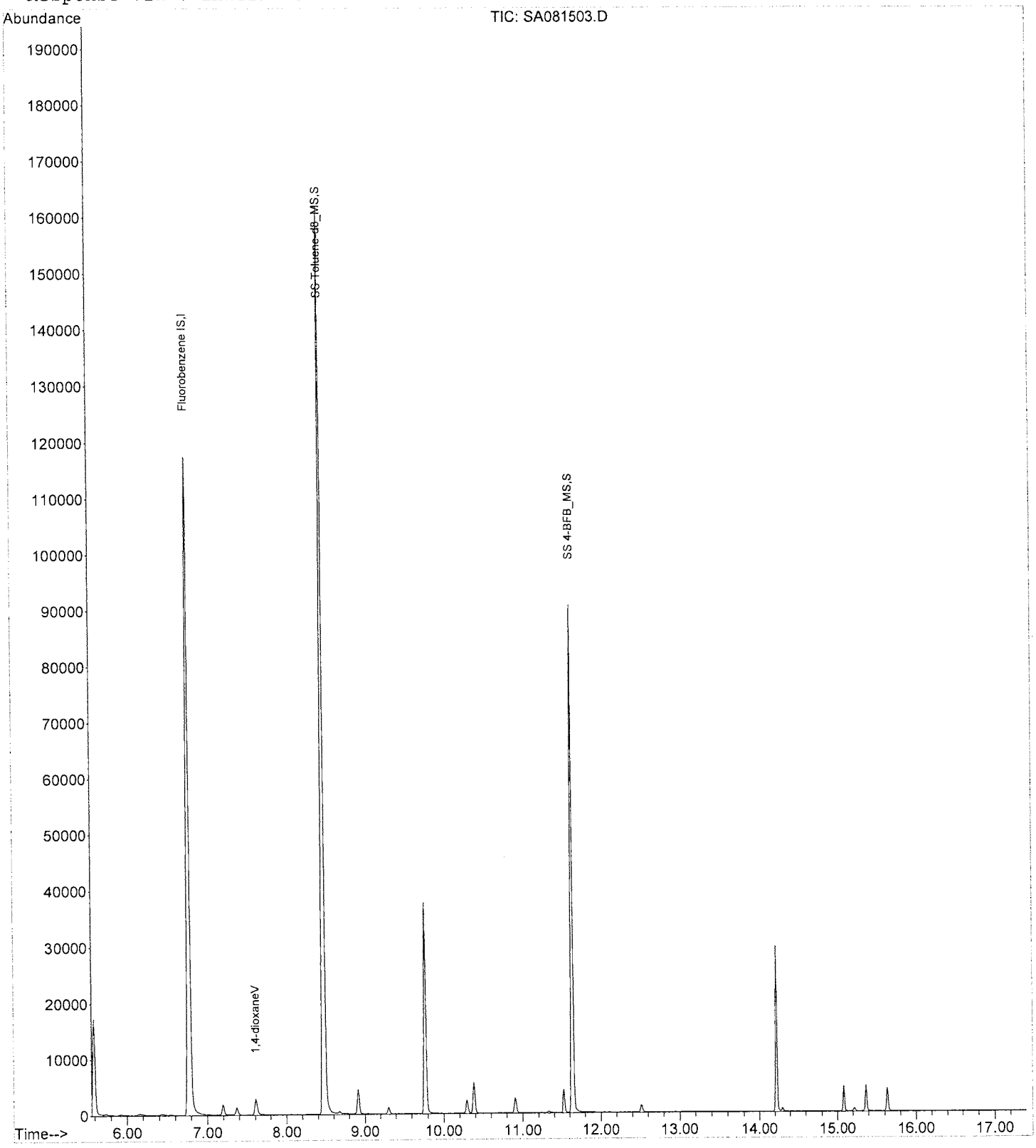
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	219073	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	214489	9.43	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.32%			
4) SS 4-BFB_MS	11.64	95	84702	10.40	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.98%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3875	4.215	ug/L	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081503.D Vial: 3
Acq On : 15 Aug 2013 10:15 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 13:21 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081504.D Vial: 4
Acq On : 15 Aug 2013 11:04 am Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 13:23:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

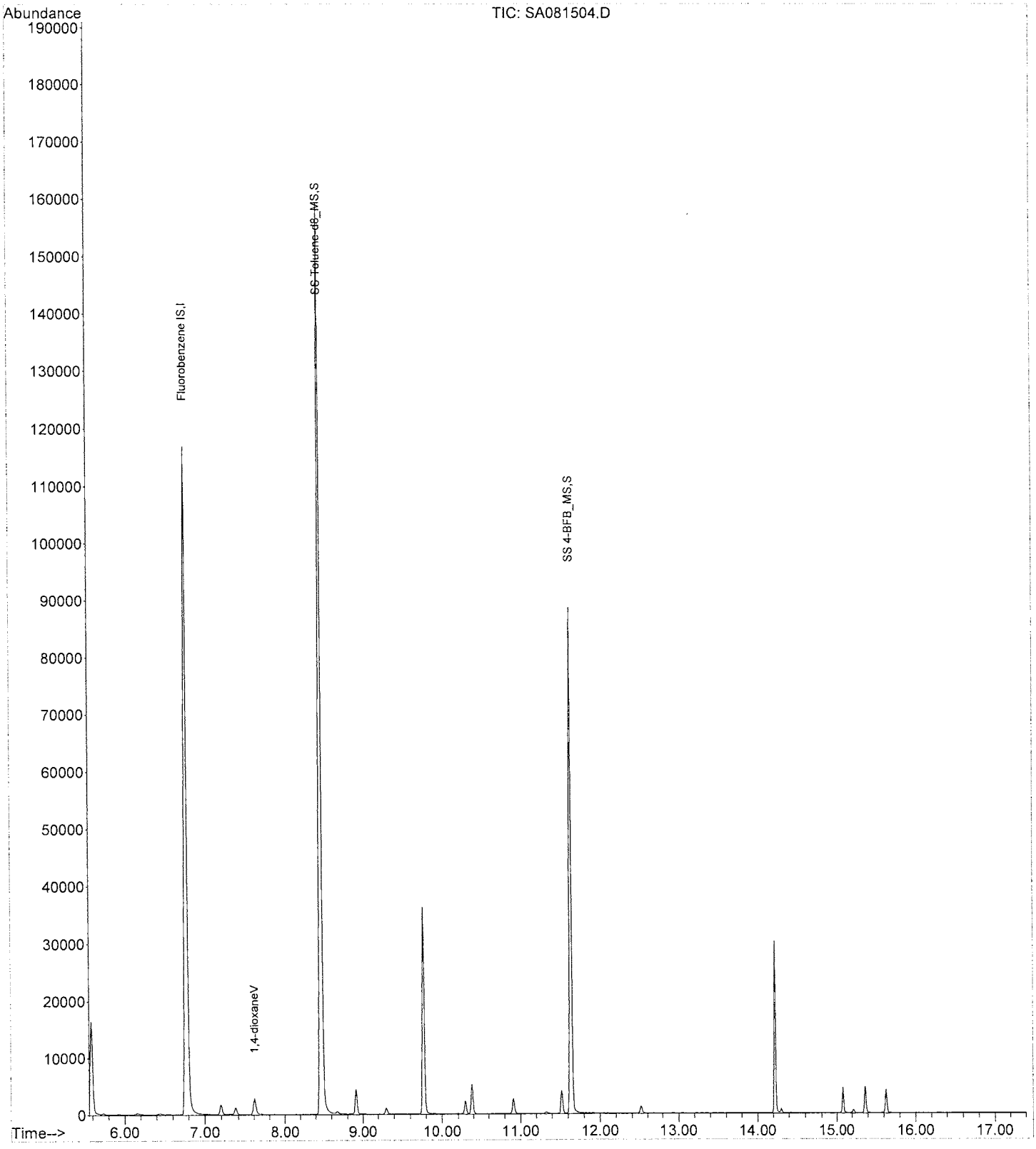
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	216898	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	222095	9.86	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.65%			
4) SS 4-BFB_MS	11.64	95	83285	10.33	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.27%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3881m	4.264	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081504.D Vial: 4
Acq On : 15 Aug 2013 11:04 am Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 9:04 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081505.D Vial: 5
Acq On : 15 Aug 2013 11:52 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 13:23:23 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

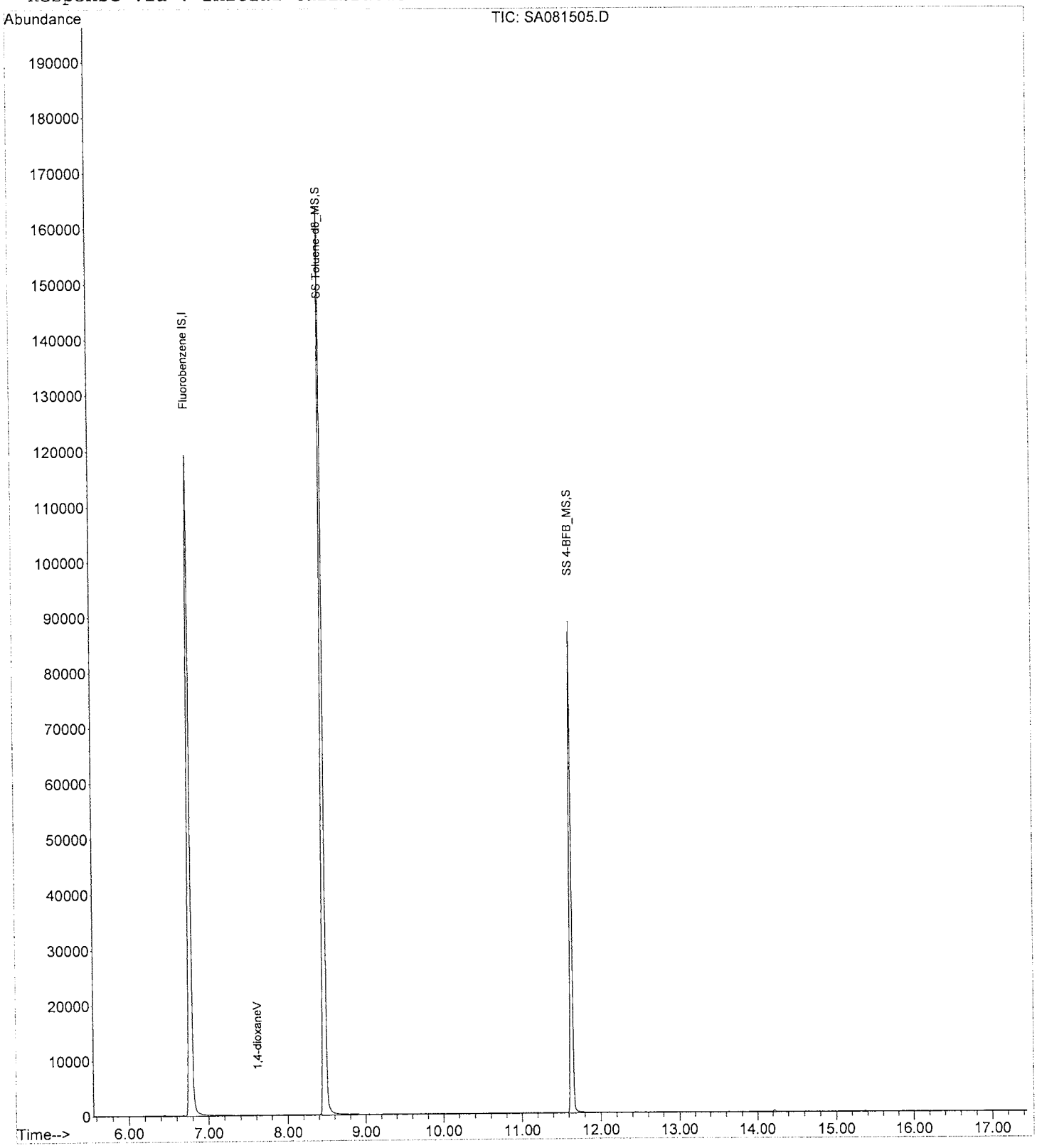
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	219297	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	211757	9.30	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.03%			
4) SS 4-BFB_MS	11.63	95	84097	10.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	82	0.089	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081505.D Vial: 5
Acq On : 15 Aug 2013 11:52 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 15 13:21 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081509.D Vial: 9
Acq On : 15 Aug 2013 3:07 pm Operator: VG
Sample : 123528.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:38:00 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	212088	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	206257	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.69%			
4) SS 4-BFB_MS	11.64	95	81413	10.32	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.24%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13	0.015	ug/L	77

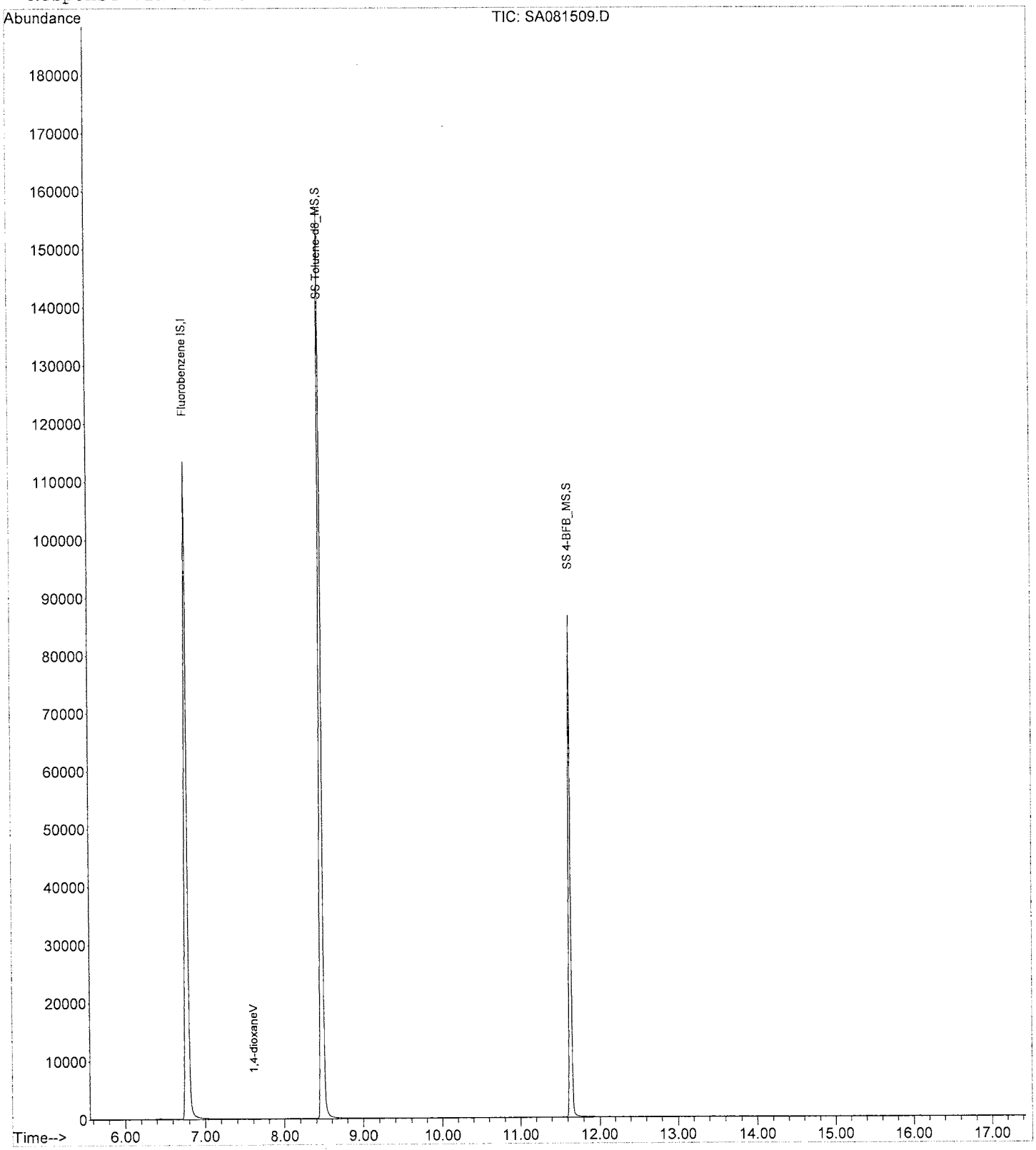
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081509.D Vial: 9
Acq On : 15 Aug 2013 3:07 pm Operator: VG
Sample : 123528.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081510.D Vial: 10
Acq On : 15 Aug 2013 3:56 pm Operator: VG
Sample : 123528.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 09:10:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	208516	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	216326	9.99	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.95%		
4) SS 4-BFB_MS		11.64	95	82471	10.64	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	106.37%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	4025	4.600	ug/L	83

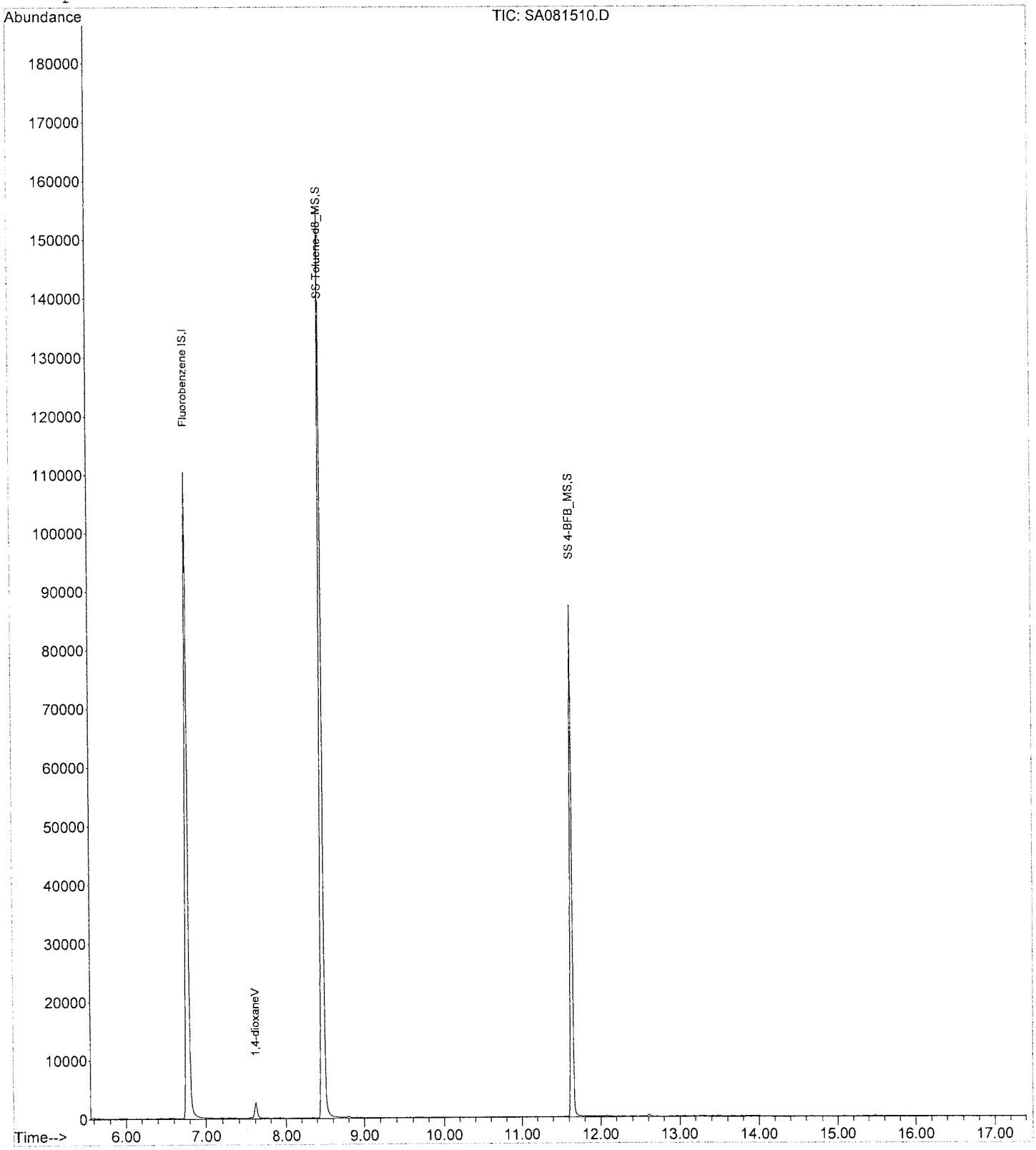
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081510.D 2SIM0510.M Mon Aug 19 09:10:29 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081510.D Vial: 10
Acq On : 15 Aug 2013 3:56 pm Operator: VG
Sample : 123528.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 9:08 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081511.D Vial: 11
Acq On : 15 Aug 2013 4:44 pm Operator: VG
Sample : 123528.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 09:10:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	206464	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	211818	9.88	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.84%			
4) SS 4-BFB_MS	11.64	95	80651	10.51	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.05%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	4126	4.762	ug/L	91

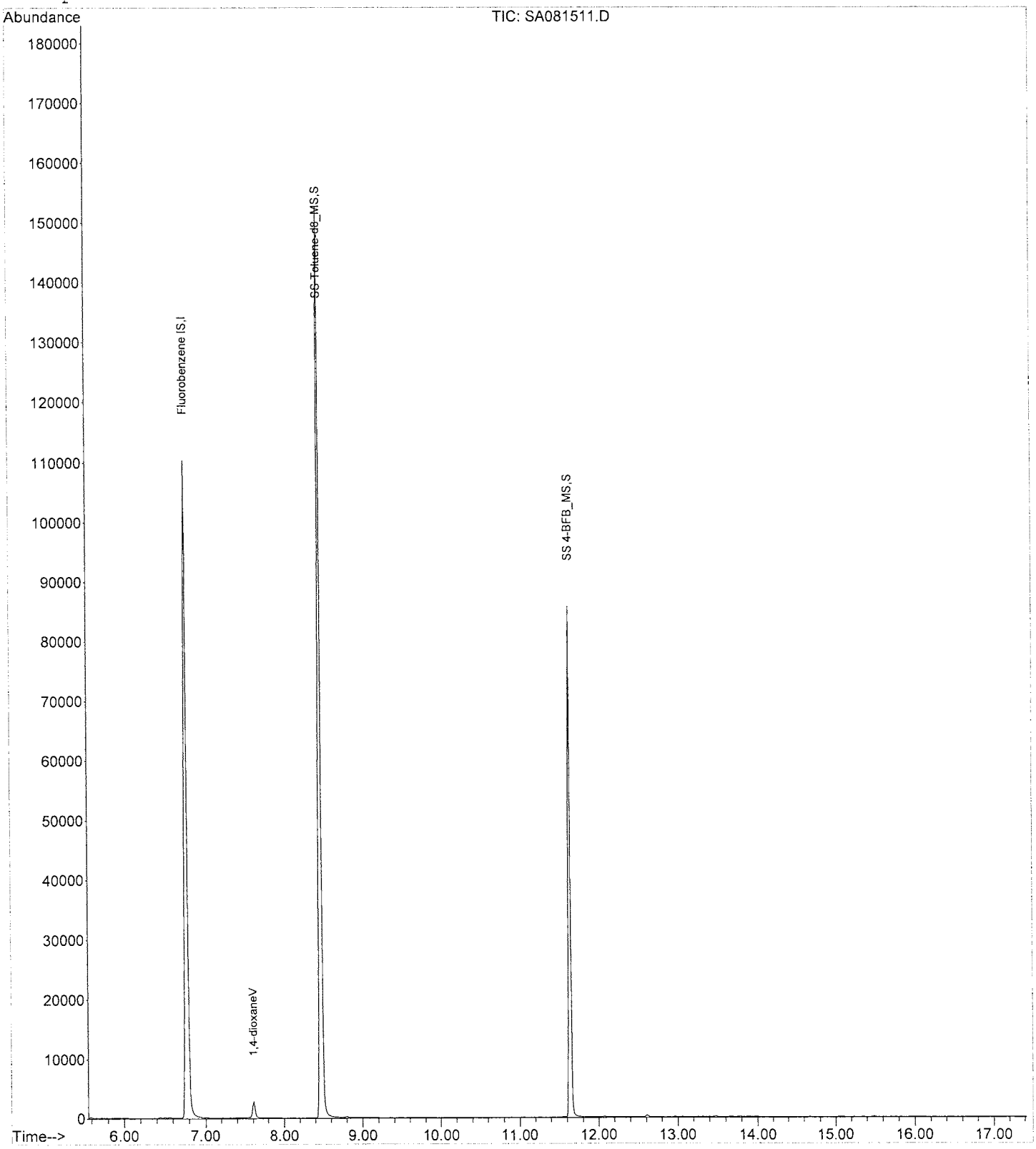
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081511.D 2SIM0510.M Mon Aug 19 09:10:32 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081511.D Vial: 11
Acq On : 15 Aug 2013 4:44 pm Operator: VG
Sample : 123528.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 9:08 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081512.D Vial: 12
Acq On : 15 Aug 2013 5:33 pm Operator: VG
Sample : 123528.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:38:09 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	206646	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	212719	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.17%			
4) SS 4-BFB_MS	11.64	95	81289	10.58	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.79%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1065	1.228	ug/L	85

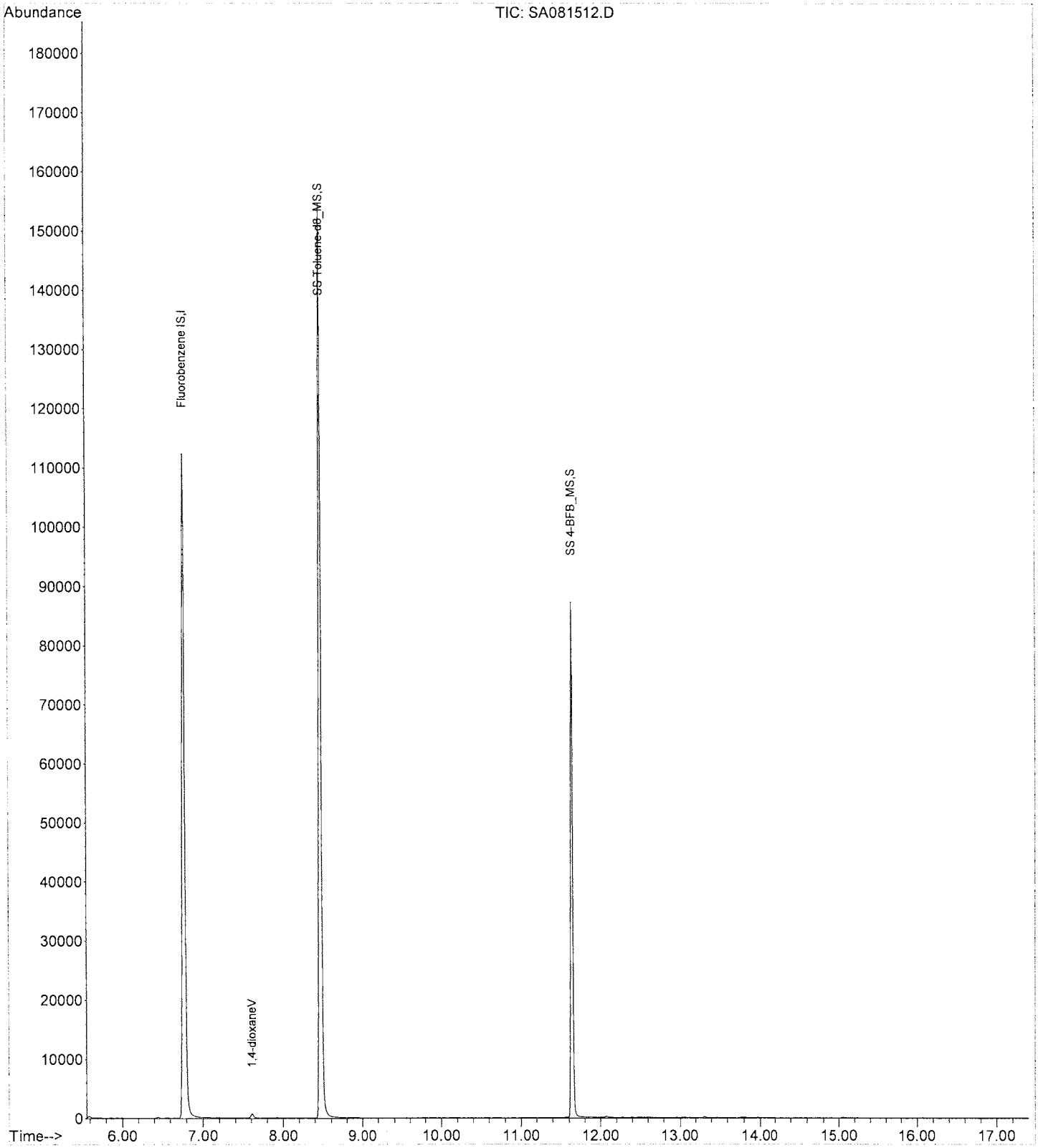
8/16/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081512.D 2SIM0510.M Fri Aug 16 08:38:09 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081512.D Vial: 12
Acq On : 15 Aug 2013 5:33 pm Operator: VG
Sample : 123528.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081516.D Vial: 16
Acq On : 15 Aug 2013 8:52 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:26:35 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

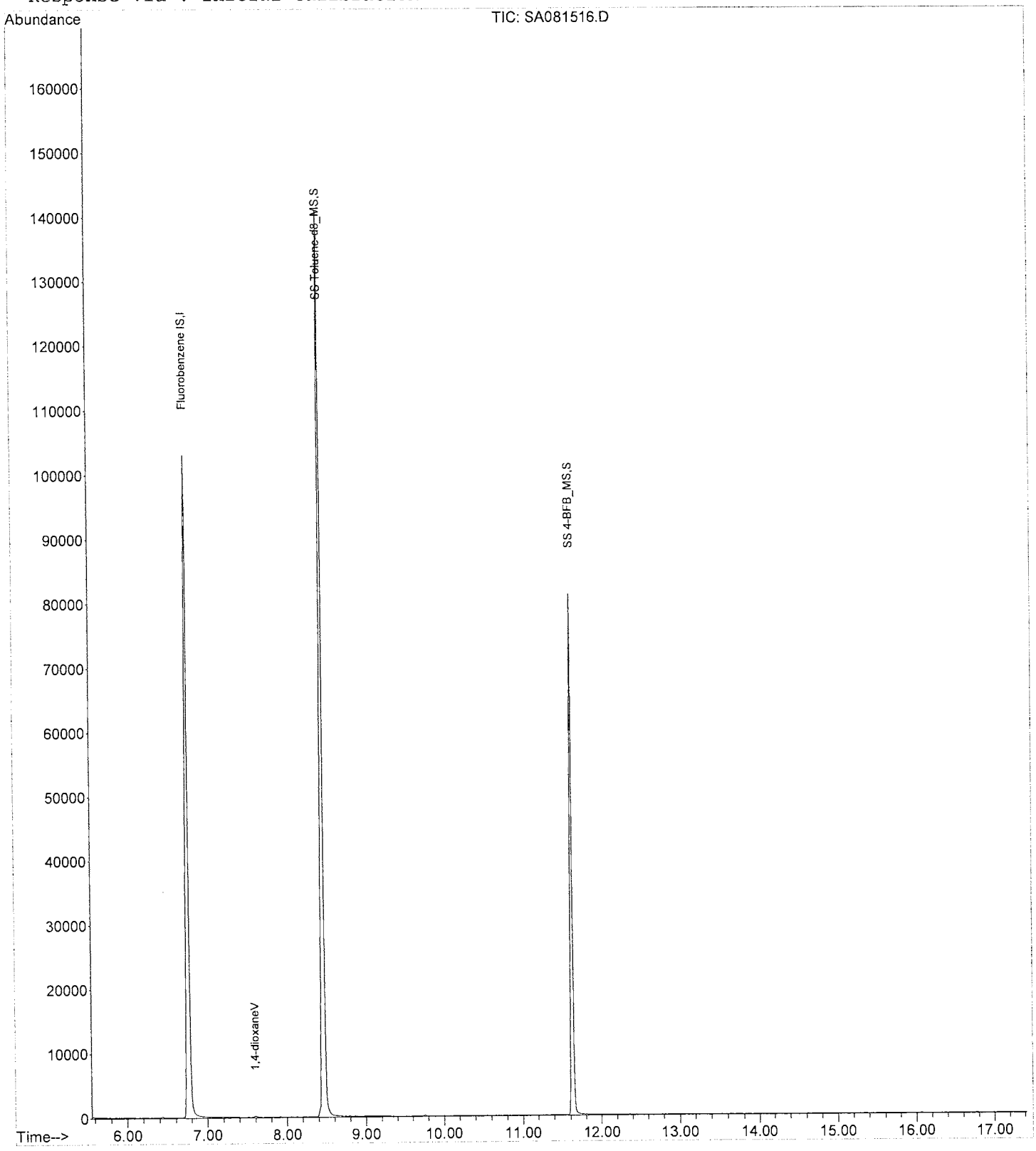
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	185228	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	191350	9.95	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.52%			
4) SS 4-BFB_MS	11.62	95	75363	10.94	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.42%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	240	0.309	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081516.D Vial: 16
Acq On : 15 Aug 2013 8:52 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:24 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



123528
Metals by 200.8
Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15 1:10		Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets po:	Sample
63	123649.01 MS	1:1 Sc mets po:	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets po:	Sample
74	123649.06 MS	1:1 Sc mets po:	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets po:	Sample
90	123739.13 MS	1:1 Sc mets po:	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 MSpre		Sample
104	123529.10 MSpre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

~~Last good~~ passing QC set.
autosampler malfunctions
Not Reporting any As, Mn

auto sampler malfuctions

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 MSpost	Sample
120	123529.20 MSpost	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 MSpost	Sample
135	123739.03 MSpost	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 MSpost	Sample
150	123739.19 MSpost	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74162

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.19		2001

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		85.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 92.208
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 96.089
Sb
Sb
Ba
Ba
Tb
Ho 101.260
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		83.547
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 89.389
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 93.603
Sb
Sb
Ba
Ba
Tb
Ho 99.877
Hg
Hg
Tl
Pb
Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 14:32:52	Sample Date/Time:	Wednesday, August 21, 2013 17:20:00
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1	Ag	107	0.11138	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1	Ag	109	0.119796	ug/L		< 1
Al	27	-0.26208	ug/L		< 50	Al	27	-0.096673	ug/L		< 50
As	75	-0.071958	ug/L		< 1	As	75	-0.107506	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1	Ba	137	0.009978	ug/L		< 1
Ba	138	0.000189	ug/L		< 1	Ba	138	0.013973	ug/L		< 1
Be	9	-0.011526	ug/L		< 1	Be	9	-0.013222	ug/L		< 1
Ca	44	1.285014	ug/L		< 50	Ca	44	2.131988	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1	Cd	111	-0.044567	ug/L		< 1
Cd	114	0.007666	ug/L		< 1	Cd	114	-0.038087	ug/L		< 1
Co	59	-0.060007	ug/L		< 1	Co	59	-0.0905	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1	Cr	52	0.017578	ug/L		< 1
Cu	63	0.021397	ug/L		< 1	Cu	63	0.021827	ug/L		< 1
Cu	65	0.029362	ug/L		< 1	Cu	65	0.027876	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50	Fe	54	-4.694121	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50	Fe	56	0.7008	ug/L		< 50
Fe	57	0.03486	ug/L		< 50	Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	98.551		Ge	72		ug/L	92.793	
Hg	200	0.000835	ug/L		< 0.2	Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2	Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	99.821		Ho	165		ug/L	95.506	
In	115		ug/L	97.623		In	115		ug/L	93.097	
K	39	-1.029991	ug/L		< 50	K	39	-2.584433	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50	Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50	Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5	Mn	55	-0.0295	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000	Na	23	-0.140785	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1	Ni	60	0.004618	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1	Ni	62	-0.035148	ug/L		< 1
P	31	-0.685617	ug/L		< 50	P	31	-4.843357	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1	Pb	208	-0.004769	ug/L		< 1
Sb	121	0.072129	ug/L		< 1	Sb	121	-0.001531	ug/L		< 1
Sb	123	0.074335	ug/L		< 1	Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	98.465		Sc	45		ug/L	92.391	
Se	82	0.043643	ug/L		< 1	Se	82	-0.033791	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1	Tl	205	-0.068961	ug/L		< 1
V	51	0.220601	ug/L		< 1	V	51	0.347795	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5	Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 18:51:22
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1
Ag	109	0.382578	ug/L		< 1
Al	27	-0.04987	ug/L		< 50
As	75	-0.029484	ug/L		< 1
Ba	137	0.00932	ug/L		< 1
Ba	138	0.013228	ug/L		< 1
Be	9	-0.010209	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1
Co	59	-0.098027	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1
Cu	63	0.069722	ug/L		< 1
Cu	65	0.073293	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50
Ge	72		ug/L	82.019	
Hg	200	0.002538	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2
Ho	165		ug/L	95.831	
In	115		ug/L	88.586	
K	39	-5.938476	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1
P	31	0.144733	ug/L		< 50
Pb	208	0.003305	ug/L		< 1
Sb	121	0.546547	ug/L		< 1
Sb	123	0.557478	ug/L		< 1
Sc	45		ug/L	83.518	
Se	82	-0.069326	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1
V	51	-0.169861	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 20:22:45
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.409088	ug/L		< 1
Ag	109	0.462557	ug/L		< 1
Al	27	-0.058166	ug/L		< 50
As	75	0.021676	ug/L		< 1
Ba	137	0.012484	ug/L		< 1
Ba	138	0.01333	ug/L		< 1
Be	9	-0.001978	ug/L		< 1
Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.07032	ug/L		< 1
Co	59	-0.099707	ug/L		< 1
Cr	52	-0.090933	ug/L		< 1
Cu	63	0.082017	ug/L		< 1
Cu	65	0.073695	ug/L		< 1
Fe	54	-6.674499	ug/L		< 50
Fe	56	-55.093425	ug/L		< 50
Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	83.541	
Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	97.845	
In	115		ug/L	89.505	
K	39	-6.379123	ug/L		< 50
Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.022123	ug/L		< 5
Na	23	0.056546	ug/L		< 5000
Ni	60	0.008771	ug/L		< 1
Ni	62	-0.024023	ug/L		< 1
P	31	-2.824856	ug/L		< 50
Pb	208	0.008953	ug/L		< 1
Sb	121	0.723441	ug/L		< 1
Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	82.676	
Se	82	0.060139	ug/L		< 1
Tl	205	-0.045467	ug/L		< 1
V	51	-0.214544	ug/L		< 1
Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 21:54:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.153846	ug/L		< 1
Ag	109	0.15035	ug/L		< 1
Al	27	0.013772	ug/L		< 50
As	75	0.37065	ug/L		< 1
Ba	137	0.01947	ug/L		< 1
Ba	138	0.021745	ug/L		< 1
Be	9	0.004878	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1
Co	59	-0.10566	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1
Cu	63	0.163582	ug/L		< 1
Cu	65	0.161789	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50
Fe	57	2.66129	ug/L		< 50
Ge	72		ug/L	85.734	
Hg	200	0.007564	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2
Ho	165		ug/L	96.63	
In	115		ug/L	90.015	
K	39	-3.247278	ug/L		< 50
Mg	24	0.269698	ug/L		< 50
Mg	25	0.317386	ug/L		< 50
Mn	55	0.018114	ug/L		< 5
Na	23	4.750616	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1
P	31	-0.93812	ug/L		< 50
Pb	208	0.033931	ug/L		< 1
Sb	121	0.653921	ug/L		< 1
Sb	123	0.671316	ug/L		< 1
Sc	45		ug/L	85.08	
Se	82	0.575163	ug/L		< 1
Tl	205	0.003967	ug/L		< 1
V	51	-0.280011	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 23:25:34
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.155097	ug/L		< 1
Ag	109	0.156398	ug/L		< 1
Al	27	0.049873	ug/L		< 50
As	75	0.319848	ug/L		< 1
Ba	137	0.01958	ug/L		< 1
Ba	138	0.021384	ug/L		< 1
Be	9	0.004036	ug/L		< 1
Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.063347	ug/L		< 1
Co	59	-0.109626	ug/L		< 1
Cr	52	-0.075727	ug/L		< 1
Cu	63	0.09756	ug/L		< 1
Cu	65	0.094357	ug/L		< 1
Fe	54	-2.050464	ug/L		< 50
Fe	56	-4.061431	ug/L		< 50
Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	84.343	
Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	95.521	
In	115		ug/L	89.464	
K	39	-3.193172	ug/L		< 50
Mg	24	0.229747	ug/L		< 50
Mg	25	0.143982	ug/L		< 50
Mn	55	-0.007129	ug/L		< 5
Na	23	4.091156	ug/L		< 5000
Ni	60	0.014038	ug/L		< 1
Ni	62	-0.037908	ug/L		< 1
P	31	-3.357474	ug/L		< 50
Pb	208	0.029733	ug/L		< 1
Sb	121	1.653256	ug/L		< 1
Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.39	
Se	82	0.458721	ug/L		< 1
Tl	205	-0.01207	ug/L		< 1
V	51	-0.30454	ug/L		< 1
Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 00:57:05
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.152331	ug/L		< 1
Ag	109	0.15027	ug/L		< 1
Al	27	-0.03779	ug/L		< 50
As	75	0.057719	ug/L		< 1
Ba	137	0.010942	ug/L		< 1
Ba	138	0.015616	ug/L		< 1
Be	9	-0.011321	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1
Co	59	-0.115011	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1
Cu	63	0.036833	ug/L		< 1
Cu	65	0.037452	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50
Fe	57	1.44184	ug/L		< 50
Ge	72		ug/L	82.371	
Hg	200	0.001505	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2
Ho	165		ug/L	98.75	
In	115		ug/L	90.548	
K	39	-3.35505	ug/L		< 50
Mg	24	0.204655	ug/L		< 50
Mg	25	0.12711	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5
Na	23	2.807046	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1
P	31	-0.22554	ug/L		< 50
Pb	208	0.002268	ug/L		< 1
Sb	121	0.174891	ug/L		< 1
Sb	123	0.17576	ug/L		< 1
Sc	45		ug/L	81.683	
Se	82	0.112483	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1
V	51	-0.328191	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 02:28:35
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.288914	ug/L		< 1
Ag	109	1.28419	ug/L		< 1
Al	27	0.044205	ug/L		< 50
As	75	0.225436	ug/L		< 1
Ba	137	0.018145	ug/L		< 1
Ba	138	0.017597	ug/L		< 1
Be	9	-0.003792	ug/L		< 1
Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.062216	ug/L		< 1
Co	59	-0.110973	ug/L		< 1
Cr	52	-0.064696	ug/L		< 1
Cu	63	0.072073	ug/L		< 1
Cu	65	0.06893	ug/L		< 1
Fe	54	-3.680317	ug/L		< 50
Fe	56	-47.09427	ug/L		< 50
Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	80.61	
Hg	200	0.005209	ug/L		< 0.2
Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	97.019	
In	115		ug/L	88.977	
K	39	-3.434466	ug/L		< 50
Mg	24	0.148344	ug/L		< 50
Mg	25	0.037963	ug/L		< 50
Mn	55	0.008374	ug/L		< 5
Na	23	5.300602	ug/L		< 5000
Ni	60	0.012988	ug/L		< 1
Ni	62	-0.005112	ug/L		< 1
P	31	-2.730091	ug/L		< 50
Pb	208	0.018434	ug/L		< 1
Sb	121	1.521021	ug/L		< 1
Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	80.611	
Se	82	0.174458	ug/L		< 1
Tl	205	-0.053724	ug/L		< 1
V	51	-0.309052	ug/L		< 1
Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 04:00:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.109538	ug/L		< 1
Ag	109	0.107885	ug/L		< 1
Al	27	-0.008883	ug/L		< 50
As	75	0.127157	ug/L		< 1
Ba	137	0.016023	ug/L		< 1
Ba	138	0.016167	ug/L		< 1
Be	9	-0.007956	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1
Co	59	-0.114875	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1
Cu	63	0.032424	ug/L		< 1
Cu	65	0.030497	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50
Ge	72		ug/L	80.444	
Hg	200	0.001923	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2
Ho	165		ug/L	95.511	
In	115		ug/L	88.955	
K	39	-3.001431	ug/L		< 50
Mg	24	0.309671	ug/L		< 50
Mg	25	0.298606	ug/L		< 50
Mn	55	0.023224	ug/L		< 5
Na	23	7.000406	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1
P	31	-0.44829	ug/L		< 50
Pb	208	0.001211	ug/L		< 1
Sb	121	0.079278	ug/L		< 1
Sb	123	0.083749	ug/L		< 1
Sc	45		ug/L	81.009	
Se	82	0.129524	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1
V	51	-0.509723	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 05:31:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.005663	ug/L		< 1
Ag	109	0.010628	ug/L		< 1
Al	27	-0.502926	ug/L		< 50
As	75	1.129123	ug/L		< 1
Ba	137	-0.010148	ug/L		< 1
Ba	138	-0.008275	ug/L		< 1
Be	9	-0.015683	ug/L		< 1
Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.039959	ug/L		< 1
Co	59	0.012542	ug/L		< 1
Cr	52	-0.491944	ug/L		< 1
Cu	63	-0.001465	ug/L		< 1
Cu	65	-0.006339	ug/L		< 1
Fe	54	284.471578	ug/L		< 50
Fe	56	-129.55362	ug/L		< 50
Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	129.949	
Hg	200	-0.003001	ug/L		< 0.2
Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	141.908	
In	115		ug/L	125.817	
K	39	-31.826232	ug/L		< 50
Mg	24	-0.136734	ug/L		< 50
Mg	25	-0.19183	ug/L		< 50
Mn	55	0.061396	ug/L		< 5
Na	23	1.090327	ug/L		< 5000
Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.076872	ug/L		< 1
P	31	26.141474	ug/L		< 50
Pb	208	-0.007794	ug/L		< 1
Sb	121	0.002988	ug/L		< 1
Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	141.513	
Se	82	-0.152989	ug/L		< 1
Tl	205	-0.081941	ug/L		< 1
V	51	-2.241279	ug/L		< 1
Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 07:03:30
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1
Al	27	-0.524824	ug/L		< 50
As	75	1.098666	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1
Be	9	-0.016149	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1
Co	59	-0.033016	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1
Fe	54	318.31098	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50
Ge	72		ug/L	135.534	
Hg	200	-0.00305	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2
Ho	165		ug/L	135.791	
In	115		ug/L	133.042	
K	39	-33.575308	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50
Mn	55	0.05205	ug/L		< 5
Na	23	0.12898	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1
P	31	28.414772	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1
Sc	45		ug/L	135.399	
Se	82	-0.162972	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1
V	51	-2.302445	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 08:35:16
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524517	ug/L		< 50
As	75	1.054567	ug/L		< 1
Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.009079	ug/L		< 1
Be	9	-0.014621	ug/L		< 1
Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.090179	ug/L		< 1
Co	59	-0.078269	ug/L		< 1
Cr	52	-0.47418	ug/L		< 1
Cu	63	0.0013	ug/L		< 1
Cu	65	-0.003215	ug/L		< 1
Fe	54	319.135316	ug/L		< 50
Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.134	
Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	140.956	
In	115		ug/L	144.07	
K	39	-32.805094	ug/L		< 50
Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.229129	ug/L		< 50
Mn	55	0.048782	ug/L		< 5
Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.061371	ug/L		< 1
P	31	27.860573	ug/L		< 50
Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	130.84	
Se	82	-0.404338	ug/L		< 1
Tl	205	-0.093371	ug/L		< 1
V	51	-2.29718	ug/L		< 1
Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 09:33:49
Sample Description: Blank

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.095298	ug/L		< 1
Ag	109	0.094355	ug/L		< 1
Al	27	0.075903	ug/L		< 50
As	75	-0.03098	ug/L		< 1
Ba	137	0.017392	ug/L		< 1
Ba	138	0.020186	ug/L		< 1
Be	9	-0.010611	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1
Co	59	-0.137349	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1
Cu	63	0.039414	ug/L		< 1
Cu	65	0.031906	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50
Ge	72		ug/L	89.373	
Hg	200	0.000491	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2
Ho	165		ug/L	98.89	
In	115		ug/L	92.57	
K	39	-4.157267	ug/L		< 50
Mg	24	0.574241	ug/L		< 50
Mg	25	0.636205	ug/L		< 50
Mn	55	0.021759	ug/L		< 5
Na	23	2.780659	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1
P	31	-0.173755	ug/L		< 50
Pb	208	0.001538	ug/L		< 1
Sb	121	0.078009	ug/L		< 1
Sb	123	0.087634	ug/L		< 1
Sc	45		ug/L	85.875	
Se	82	0.043633	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1
V	51	-0.596453	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 11:24:19
Sample Description: Blank

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.090915	ug/L		< 1
Ag	109	0.09819	ug/L		< 1
Al	27	0.047217	ug/L		< 50
As	75	-0.030436	ug/L		< 1
Ba	137	0.016176	ug/L		< 1
Ba	138	0.020659	ug/L		< 1
Be	9	-0.011288	ug/L		< 1
Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.082977	ug/L		< 1
Co	59	-0.147596	ug/L		< 1
Cr	52	-0.06319	ug/L		< 1
Cu	63	0.038297	ug/L		< 1
Cu	65	0.034062	ug/L		< 1
Fe	54	-1.456751	ug/L		< 50
Fe	56	-0.025537	ug/L		< 50
Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	86.417	
Hg	200	0.00115	ug/L		< 0.2
Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	100.905	
In	115		ug/L	92.826	
K	39	-0.314828	ug/L		< 50
Mg	24	0.573024	ug/L		< 50
Mg	25	0.393241	ug/L		< 50
Mn	55	0.02926	ug/L		< 5
Na	23	4.257669	ug/L		< 5000
Ni	60	0.00676	ug/L		< 1
Ni	62	-0.003664	ug/L		< 1
P	31	0.06278	ug/L		< 50
Pb	208	0.000639	ug/L		< 1
Sb	121	0.071262	ug/L		< 1
Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.343	
Se	82	0.023146	ug/L		< 1
Tl	205	-0.073176	ug/L		< 1
V	51	-0.366388	ug/L		< 1
Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 13:43:03
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1
Ag	109	0.640631	ug/L		< 1
Al	27	0.09732	ug/L		< 50
As	75	0.128392	ug/L		< 1
Ba	137	0.023246	ug/L		< 1
Ba	138	0.021737	ug/L		< 1
Be	9	-0.002378	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1
Co	59	-0.14108	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1
Cu	63	0.072079	ug/L		< 1
Cu	65	0.082805	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50
Fe	57	2.699095	ug/L		< 50
Ge	72		ug/L	79.059	
Hg	200	0.003667	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2
Ho	165		ug/L	92.372	
In	115		ug/L	86.481	
K	39	-0.06939	ug/L		< 50
Mg	24	0.658856	ug/L		< 50
Mg	25	0.529086	ug/L		< 50
Mn	55	0.027991	ug/L		< 5
Na	23	4.666609	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1
P	31	0.073182	ug/L		< 50
Pb	208	0.015682	ug/L		< 1
Sb	121	1.267409	ug/L		< 1
Sb	123	1.287874	ug/L		< 1
Sc	45		ug/L	76.201	
Se	82	0.150628	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1
V	51	-0.220549	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 14:35:14
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.222791	ug/L		< 1
Ag	109	0.224883	ug/L		< 1
Al	27	0.500197	ug/L		< 50
As	75	-0.06713	ug/L		< 1
Ba	137	0.017237	ug/L		< 1
Ba	138	0.021829	ug/L		< 1
Be	9	-0.010387	ug/L		< 1
Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.085964	ug/L		< 1
Co	59	-0.146151	ug/L		< 1
Cr	52	-0.045782	ug/L		< 1
Cu	63	0.041847	ug/L		< 1
Cu	65	0.035843	ug/L		< 1
Fe	54	4.533522	ug/L		< 50
Fe	56	-35.057302	ug/L		< 50
Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.142	
Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	93.451	
In	115		ug/L	87.75	
K	39	0.959589	ug/L		< 50
Mg	24	0.990964	ug/L		< 50
Mg	25	0.888904	ug/L		< 50
Mn	55	0.014971	ug/L		< 5
Na	23	5.109504	ug/L		< 5000
Ni	60	0.00981	ug/L		< 1
Ni	62	-0.00789	ug/L		< 1
P	31	0.284032	ug/L		< 50
Pb	208	0.007423	ug/L		< 1
Sb	121	0.253468	ug/L		< 1
Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.542	
Se	82	0.06488	ug/L		< 1
Tl	205	-0.051882	ug/L		< 1
V	51	-0.227237	ug/L		< 1
Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929	1	
Hg	202	1.040778	ug/L	104.078	1	
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662		1000
Mg	24	103.781446	ug/L	103.368		100
Mg	25	101.910134	ug/L	101.504		100
Mn	55	101.057709	ug/L	100.455		100
Na	23	100.277066	ug/L	98.795		100
Ni	60	102.584982	ug/L	102.176		100
Ni	62	102.933276	ug/L	102.523		100
Pb	208	99.694126	ug/L	98.903		100
Sb	121	100.398697	ug/L	99.999		100
Sb	123	100.622444	ug/L	100.222		100
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043		100
Tl	205	99.216104	ug/L	99.515		100
V	51	101.059419	ug/L	100.059		100
Zn	64	107.272953	ug/L	106.846		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593	1	
Hg	202	1.040768	ug/L	104.077	1	
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252		1000
Mg	24	98.319154	ug/L	97.927		100
Mg	25	96.031291	ug/L	95.649		100
Mn	55	98.959577	ug/L	98.369		100
Na	23	96.168791	ug/L	94.748		100
Ni	60	100.55402	ug/L	100.153		100
Ni	62	102.661248	ug/L	102.252		100
Pb	208	98.323004	ug/L	97.543		100
Sb	121	99.99654	ug/L	99.598		100
Sb	123	99.453167	ug/L	99.057		100
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583		100
Tl	205	97.452476	ug/L	97.746		100
V	51	101.271779	ug/L	100.269		100
Zn	64	109.836832	ug/L	109.399		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4		10000
Mg	24	9880.11872	ug/L	98.801		10000
Mg	25	9759.45121	ug/L	97.595		10000
Na	23	9883.02508	ug/L	98.83		10000
P	31	9713.82327	ug/L	97.138		10000
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896		10000
Mg	24	8956.63881	ug/L	89.566		10000
Mg	25	8963.69564	ug/L	89.637		10000
Na	23	9024.94466	ug/L	90.249		10000
P	31	9411.4984	ug/L	94.115		10000
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 14:52:24
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1
Ag	109	33.528061	ug/L	107.807		31.1
Al	27	175.79957	ug/L	108.518		162
As	75	44.004738	ug/L	108.654		40.5
Ba	137	26.819208	ug/L	101.974		26.3
Be	9	57.677018	ug/L	108.212		53.3
Cd	111	48.935119	ug/L	101.525		48.2
Cd	114	49.027357	ug/L	101.717		48.2
Co	59	26.704507	ug/L	108.555		24.6
Cr	52	12.125672	ug/L	105.441		11.5
Cu	63	29.535617	ug/L	105.484		28
Cu	65	29.324751	ug/L	104.731		28
Fe	54	49.158941	ug/L	110.718		44.4
Fe	57	48.011563	ug/L	108.134		44.4
Ge	72		ug/L		96.994	
Hg	200	1.073622	ug/L	107.362		1
Hg	202	1.06403	ug/L	106.403		1
Ho	165		ug/L		98.773	
In	115		ug/L		97.432	
Mn	55	156.696069	ug/L	105.876		148
Ni	60	37.877474	ug/L	104.924		36.1
Ni	62	37.770046	ug/L	104.626		36.1
Pb	208	140.241661	ug/L	102.366		137
Sb	121	77.130222	ug/L	120.894		63.8
Sb	123	78.14608	ug/L	122.486		63.8
Sc	45		ug/L		97.791	
Se	82	170.349456	ug/L	105.154		162
Tl	205	29.143939	ug/L	104.834		27.8
V	51	146.163334	ug/L	102.932		142
Zn	64	136.871927	ug/L	108.629		126

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 17:33:02
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.401584	ug/L	107.401		31.1
Al	27	170.207121	ug/L	105.066		162
As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.02674	ug/L	105.8		24.6
Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.265666	ug/L	104.52		28
Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		90.92	
Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		95.67	
In	115		ug/L		91.805	
Mn	55	152.821227	ug/L	103.258		148
Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.83278	ug/L	102.798		137
Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		89.874	
Se	82	163.258818	ug/L	100.777		162
Tl	205	28.779001	ug/L	103.522		27.8
V	51	145.251347	ug/L	102.29		142
Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922		1
Hg	202	1.082203	ug/L	108.22		1
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119		1000
Mg	24	99.317125	ug/L	98.921		100
Mg	25	97.694613	ug/L	97.305		100
Mn	55	97.083947	ug/L	96.505		100
Na	23	97.926622	ug/L	96.479		100
Ni	60	99.931756	ug/L	99.534		100
Ni	62	101.122532	ug/L	100.72		100
Pb	208	104.220792	ug/L	103.394		100
Sb	121	103.564096	ug/L	103.151		100
Sb	123	105.370593	ug/L	104.951		100
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647		100
Tl	205	102.083183	ug/L	102.39		100
V	51	99.948537	ug/L	98.959		100
Zn	64	111.868594	ug/L	111.423		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489		1
Hg	202	1.036762	ug/L	103.676		1
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214		1000
Mg	24	97.583939	ug/L	97.195		100
Mg	25	96.371483	ug/L	95.988		100
Mn	55	96.222644	ug/L	95.649		100
Na	23	94.867561	ug/L	93.466		100
Ni	60	99.787099	ug/L	99.39		100
Ni	62	100.716791	ug/L	100.316		100
Pb	208	101.118943	ug/L	100.316		100
Sb	121	101.603508	ug/L	101.199		100
Sb	123	101.96027	ug/L	101.554		100
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683		100
Tl	205	99.868488	ug/L	100.169		100
V	51	99.064993	ug/L	98.084		100
Zn	64	110.300389	ug/L	109.861		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339		10000
Mg	24	9107.17615	ug/L	91.072		10000
Mg	25	9113.08412	ug/L	91.131		10000
Na	23	9142.69945	ug/L	91.427		10000
P	31	9237.4397	ug/L	92.374		10000
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23		10000
Mg	24	9115.36461	ug/L	91.154		10000
Mg	25	9076.8622	ug/L	90.769		10000
Na	23	9186.42576	ug/L	91.864		10000
P	31	9240.66309	ug/L	92.407		10000
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 19:04:23
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1
Ag	109	32.243043	ug/L	103.675		31.1
Al	27	169.877405	ug/L	104.863		162
As	75	43.649422	ug/L	107.776		40.5
Ba	137	26.539059	ug/L	100.909		26.3
Be	9	58.537574	ug/L	109.827		53.3
Cd	111	47.686438	ug/L	98.935		48.2
Cd	114	48.50097	ug/L	100.624		48.2
Co	59	24.967966	ug/L	101.496		24.6
Cr	52	11.295588	ug/L	98.223		11.5
Cu	63	28.509718	ug/L	101.82		28
Cu	65	28.505075	ug/L	101.804		28
Fe	54	36.488238	ug/L	82.181		44.4
Fe	57	37.63998	ug/L	84.775		44.4
Ge	72		ug/L		83.794	
Hg	200	1.079841	ug/L	107.984		1
Hg	202	1.075676	ug/L	107.568		1
Ho	165		ug/L		94.617	
In	115		ug/L		89.825	
Mn	55	146.325811	ug/L	98.869		148
Ni	60	35.354291	ug/L	97.934		36.1
Ni	62	35.812885	ug/L	99.205		36.1
Pb	208	142.748232	ug/L	104.196		137
Sb	121	78.438027	ug/L	122.944		63.8
Sb	123	79.381895	ug/L	124.423		63.8
Sc	45		ug/L		85.798	
Se	82	168.196615	ug/L	103.825		162
Tl	205	29.939774	ug/L	107.697		27.8
V	51	138.465296	ug/L	97.511		142
Zn	64	132.284935	ug/L	104.988		126

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 20:35:46
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.56866	ug/L	104.672		162
As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	47.957987	ug/L	99.498		48.2
Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	29.183414	ug/L	104.226		28
Cu	65	29.283253	ug/L	104.583		28
Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		82.957	
Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		96.96	
In	115		ug/L		90.311	
Mn	55	149.386866	ug/L	100.937		148
Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	139.712907	ug/L	101.98		137
Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		83.441	
Se	82	170.175299	ug/L	105.046		162
Tl	205	28.521962	ug/L	102.597		27.8
V	51	142.922273	ug/L	100.649		142
Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID:	QC Std 5	Sample ID:	QC Std 5
ıple Date/Time:	Thursday, August 22, 2013 01:10:06	Sample Date/Time:	Thursday, August 22, 2013 02:41:37
ıple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

,centration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
ılyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
	107	32.085084	ug/L	103.167		31.1	Ag	107	32.40122	ug/L	104.184		31.1
	109	32.283397	ug/L	103.805		31.1	Ag	109	32.681402	ug/L	105.085		31.1
	27	176.628105	ug/L	109.03		162	Al	27	175.971114	ug/L	108.624		162
	75	43.800976	ug/L	108.151		40.5	As	75	43.433784	ug/L	107.244		40.5
	137	26.837539	ug/L	102.044		26.3	Ba	137	26.985416	ug/L	102.606		26.3
	9	61.614851	ug/L	115.6		53.3	Be	9	61.712462	ug/L	115.783		53.3
	111	47.430034	ug/L	98.403		48.2	Cd	111	47.380861	ug/L	98.301		48.2
	114	48.746097	ug/L	101.133		48.2	Cd	114	48.585557	ug/L	100.8		48.2
ı	59	26.280712	ug/L	106.832		24.6	Co	59	26.170913	ug/L	106.386		24.6
	52	12.015753	ug/L	104.485		11.5	Cr	52	11.920527	ug/L	103.657		11.5
ı	63	29.462402	ug/L	105.223		28	Cu	63	28.915989	ug/L	103.271		28
ı	65	29.259493	ug/L	104.498		28	Cu	65	29.162714	ug/L	104.153		28
ı	54	44.033776	ug/L	99.175		44.4	Fe	54	44.487941	ug/L	100.198		44.4
ı	57	43.567683	ug/L	98.125		44.4	Fe	57	42.710078	ug/L	96.194		44.4
e	72		ug/L		82.707		Ge	72		ug/L		81.216	
g	200	1.057705	ug/L	105.77		1	Hg	200	1.026397	ug/L	102.64		1
g	202	1.069887	ug/L	106.989		1	Hg	202	1.042264	ug/L	104.226		1
o	165		ug/L		96.744		Ho	165		ug/L		96.797	
ı	115		ug/L		90.217		In	115		ug/L		88.977	
ın	55	156.302321	ug/L	105.61		148	Mn	55	155.899113	ug/L	105.337		148
li	60	37.297646	ug/L	103.318		36.1	Ni	60	36.847545	ug/L	102.071		36.1
li	62	37.56515	ug/L	104.059		36.1	Ni	62	36.750603	ug/L	101.802		36.1
›b	208	141.740015	ug/L	103.46		137	Pb	208	140.681713	ug/L	102.687		137
›b	121	78.450993	ug/L	122.964		63.8	Sb	121	78.164808	ug/L	122.515		63.8
›b	123	78.806471	ug/L	123.521		63.8	Sb	123	79.249706	ug/L	124.216		63.8
›c	45		ug/L		79.964		Sc	45		ug/L		81.057	
Se	82	169.290777	ug/L	104.5		162	Se	82	169.545511	ug/L	104.658		162
Tl	205	28.847121	ug/L	103.767		27.8	Tl	205	28.82577	ug/L	103.69		27.8
V	51	147.903791	ug/L	104.158		142	V	51	146.069039	ug/L	102.866		142
Zn	64	138.748402	ug/L	110.118		126	Zn	64	136.170963	ug/L	108.072		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905	1	
Hg	202	1.034894	ug/L	103.489	1	
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ımple ID:	QC Std 5	Sample ID:	QC Std 5
ımple Date/Time:	Thursday, August 22, 2013 04:13:10	Sample Date/Time:	Thursday, August 22, 2013 05:44:51
ımple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ɔncentration Results				QC Std	Int Std	True
ıalyte	Mass	Conc.	Units	% R	% R	Value
ɡ	107	31.910435	ug/L	102.606		31.1
ɡ	109	32.451735	ug/L	104.346		31.1
	27	176.978661	ug/L	109.246		162
s	75	43.693437	ug/L	107.885		40.5
a	137	26.960732	ug/L	102.512		26.3
e	9	63.399941	ug/L	118.949		53.3
d	111	48.186725	ug/L	99.972		48.2
d	114	48.776891	ug/L	101.197		48.2
·o	59	26.421149	ug/L	107.403		24.6
;r	52	11.97374	ug/L	104.119		11.5
;u	63	29.055703	ug/L	103.77		28
;u	65	29.197034	ug/L	104.275		28
e	54	43.74309	ug/L	98.52		44.4
e	57	41.962856	ug/L	94.511		44.4
ɜe	72		ug/L		80.709	
ɬg	200	1.069262	ug/L	106.926		1
ɬg	202	1.056357	ug/L	105.636		1
ɬo	165		ug/L		95.83	
n	115		ug/L		88.442	
Mn	55	156.943489	ug/L	106.043		148
Ni	60	37.048042	ug/L	102.626		36.1
Ni	62	36.398976	ug/L	100.828		36.1
Pb	208	141.718411	ug/L	103.444		137
Sb	121	78.316181	ug/L	122.753		63.8
Sb	123	78.931664	ug/L	123.717		63.8
Sc	45		ug/L		80.835	
Se	82	171.023934	ug/L	105.57		162
Tl	205	28.771042	ug/L	103.493		27.8
V	51	146.166037	ug/L	102.934		142
Zn	64	138.002467	ug/L	109.526		126

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.002583	ug/L	-0.008		31.1
Ag	109	-0.001163	ug/L	-0.004		31.1
Al	27	-0.512186	ug/L	-0.316		162
As	75	1.099476	ug/L	2.715		40.5
Ba	137	-0.009982	ug/L	-0.038		26.3
Be	9	-0.016701	ug/L	-0.031		53.3
Cd	111	-0.043471	ug/L	-0.09		48.2
Cd	114	-0.050387	ug/L	-0.105		48.2
Co	59	0.008112	ug/L	0.033		24.6
Cr	52	-0.495766	ug/L	-4.311		11.5
Cu	63	-0.000159	ug/L	-0.001		28
Cu	65	-0.005692	ug/L	-0.02		28
Fe	54	291.990802	ug/L	657.637		44.4
Fe	57	-21.372424	ug/L	-48.136		44.4
Ge	72		ug/L		132.416	
Hg	200	-0.003091	ug/L	-0.309		1
Hg	202	-0.003251	ug/L	-0.325		1
Ho	165		ug/L		126.741	
In	115		ug/L		145.25	
Mn	55	0.053751	ug/L	0.036		148
Ni	60	-0.011788	ug/L	-0.033		36.1
Ni	62	-0.058488	ug/L	-0.162		36.1
Pb	208	-0.007995	ug/L	-0.006		137
Sb	121	-0.004589	ug/L	-0.007		63.8
Sb	123	-0.002685	ug/L	-0.004		63.8
Sc	45		ug/L		143.741	
Se	82	-0.047835	ug/L	-0.03		162
Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	-2.27818	ug/L	-1.604		142
Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282		1
Hg	202	-0.003181	ug/L	-0.318		1
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406		1000
Mg	24	-0.174617	ug/L	-0.174		100
Mg	25	-0.247938	ug/L	-0.247		100
Mn	55	0.05222	ug/L	0.052		100
Na	23	0.032718	ug/L	0.032		100
Ni	60	-0.011779	ug/L	-0.012		100
Ni	62	-0.061766	ug/L	-0.062		100
Pb	208	-0.011789	ug/L	-0.012		100
Sb	121	-0.014839	ug/L	-0.015		100
Sb	123	-0.014279	ug/L	-0.014		100
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152		100
Tl	205	-0.096793	ug/L	-0.097		100
V	51	-2.312245	ug/L	-2.289		100
Zn	64	-1.422791	ug/L	-1.417		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295		1
Hg	202	-0.002419	ug/L	-0.242		1
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002		1000
Mg	24	-0.166032	ug/L	-0.165		100
Mg	25	-0.22414	ug/L	-0.223		100
Mn	55	0.061606	ug/L	0.061		100
Na	23	-0.358021	ug/L	-0.353		100
Ni	60	-0.011193	ug/L	-0.011		100
Ni	62	-0.060722	ug/L	-0.06		100
Pb	208	-0.011966	ug/L	-0.012		100
Sb	121	-0.018787	ug/L	-0.019		100
Sb	123	-0.01744	ug/L	-0.017		100
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294		100
Tl	205	-0.09285	ug/L	-0.093		100
V	51	-2.221141	ug/L	-2.199		100
Zn	64	-1.411079	ug/L	-1.405		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344		10000
Mg	24	-0.161123	ug/L	-0.002		10000
Mg	25	-0.20827	ug/L	-0.002		10000
Na	23	-0.132712	ug/L	-0.001		10000
P	31	22.784733	ug/L	0.228		10000
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338		10000
Mg	24	-0.17897	ug/L	-0.002		10000
Mg	25	-0.22029	ug/L	-0.002		10000
Na	23	-0.508698	ug/L	-0.005		10000
P	31	22.801151	ug/L	0.228		10000
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 07:16:32
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 08:48:17
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143	1	
Hg	202	1.052693	ug/L	105.269	1	
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067	1000	
Mg	24	105.163942	ug/L	104.745	100	
Mg	25	104.562376	ug/L	104.146	100	
Mn	55	103.439706	ug/L	102.823	100	
Na	23	107.064006	ug/L	105.482	100	
Ni	60	103.416914	ug/L	103.005	100	
Ni	62	104.626279	ug/L	104.209	100	
Pb	208	102.222971	ug/L	101.412	100	
Sb	121	105.67022	ug/L	105.249	100	
Sb	123	106.381046	ug/L	105.957	100	
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517	100	
Tl	205	102.761032	ug/L	103.07	100	
V	51	102.90077	ug/L	101.882	100	
Zn	64	114.087363	ug/L	113.633	100	

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757	1	
Hg	202	1.034154	ug/L	103.415	1	
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132	1000	
Mg	24	104.129898	ug/L	103.715	100	
Mg	25	103.655906	ug/L	103.243	100	
Mn	55	104.253269	ug/L	103.631	100	
Na	23	106.903493	ug/L	105.324	100	
Ni	60	105.713366	ug/L	105.292	100	
Ni	62	104.35735	ug/L	103.942	100	
Pb	208	103.094453	ug/L	102.276	100	
Sb	121	103.629563	ug/L	103.217	100	
Sb	123	103.888418	ug/L	103.475	100	
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303	100	
Tl	205	102.099164	ug/L	102.406	100	
V	51	103.657425	ug/L	102.631	100	
Zn	64	114.231025	ug/L	113.776	100	

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591	10000	
Mg	24	9453.82297	ug/L	94.538	10000	
Mg	25	9445.54684	ug/L	94.455	10000	
Na	23	9519.12975	ug/L	95.191	10000	
P	31	9507.21505	ug/L	95.072	10000	
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333	10000	
Mg	24	9627.10708	ug/L	96.271	10000	
Mg	25	9643.50715	ug/L	96.435	10000	
Na	23	9640.23924	ug/L	96.402	10000	
P	31	9707.49771	ug/L	97.075	10000	
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1
Ag	109	33.688755	ug/L	108.324		31.1
Al	27	179.043586	ug/L	110.521		162
As	75	45.162096	ug/L	111.511		40.5
Ba	137	27.731851	ug/L	105.444		26.3
Be	9	64.398794	ug/L	120.823		53.3
Cd	111	49.461889	ug/L	102.618		48.2
Cd	114	49.490706	ug/L	102.678		48.2
Co	59	27.129774	ug/L	110.284		24.6
Cr	52	12.414864	ug/L	107.955		11.5
Cu	63	29.906814	ug/L	106.81		28
Cu	65	29.383655	ug/L	104.942		28
Fe	54	47.801167	ug/L	107.66		44.4
Fe	57	47.125058	ug/L	106.138		44.4
Ge	72		ug/L		77.442	
Hg	200	1.059861	ug/L	105.986		1
Hg	202	1.062051	ug/L	106.205		1
Ho	165		ug/L		91.204	
In	115		ug/L		85.046	
Mn	55	162.656169	ug/L	109.903		148
Ni	60	38.003502	ug/L	105.273		36.1
Ni	62	37.531851	ug/L	103.966		36.1
Pb	208	144.276791	ug/L	105.312		137
Sb	121	80.552718	ug/L	126.258		63.8
Sb	123	81.755156	ug/L	128.143		63.8
Sc	45		ug/L		76.245	
Se	82	176.391985	ug/L	108.884		162
Tl	205	29.572709	ug/L	106.377		27.8
V	51	149.952502	ug/L	105.6		142
Zn	64	141.444438	ug/L	112.257		126

Silver spike only reported.

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.078838	ug/L	106.363		31.1
Al	27	174.750964	ug/L	107.871		162
As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.205882	ug/L	103.444		26.3
Be	9	62.863805	ug/L	117.943		53.3
Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	48.546222	ug/L	100.718		48.2
Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.413619	ug/L	105.049		28
Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.354	
Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		92.327	
In	115		ug/L		86.826	
Mn	55	158.688787	ug/L	107.222		148
Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.011138	ug/L	105.118		137
Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.361	
Se	82	174.683949	ug/L	107.83		162
Tl	205	29.024052	ug/L	104.403		27.8
V	51	148.64255	ug/L	104.678		142
Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72776.5, 43816.1			
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72776.5, 43816.1			25 mL
123529.1 MSD			73087.1, 72776.5, 43816.1			25 mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	739166.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			26 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			739166.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.02	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	73966.6, 73992.1, 74240.1	83.5	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
1231022.01						
1231029.01						
02						
1231041.01						
02						
1231042.04						
05						1:10 dilution
1231047.01						1:10 dilution
02						
03						
1231048.01						
1231049.01						
1049.01 MS			73087.1, 72276.5, 43816.1			
1049.01 MSD			73087.1, 72276.5, 43816.1			
1231049.02						
1231049.03						
1231049.04						
1049.04 MS			73087.1, 72276.5, 43816.1			
1049.04 MSD			73087.1, 72276.5, 43816.1			
1231050.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73986.10, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72276.5, 43816.1			25 mL
711.02 MSD			73087.1, 72276.5, 43816.1			25 mL
123741.01	↓	↓	↓	↓	↓	

23 TAL mets ✓

Sample ID: 123528.02
Sample Date/Time: Wednesday, August 21, 2013 19:23:56
Autosampler Position: 43
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.02.77643

Use Zn64 for all

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23010.418	ug/L	
Be	9	0.053977	49.334	ug/L	0.003
B	10	212.129717	30894.724	ug/L	2.620
B	11	215.842053	160107.200	ug/L	0.427
C	12		880315.144	ug/L	
Na	23	19504.629056	154685436.514	ug/L	81.035
Mg	24	14774.626681	80999638.546	ug/L	36.541
Mg	25	14749.641716	11480548.262	ug/L	58.561
Al	27	690.087641	5908417.866	ug/L	5.510
Si	28		46098358.132	ug/L	
P	31	543.412391	287603.535	ug/L	0.677
S	32		80028322.817	ug/L	
Cl	35		9343267.196	ug/L	
K	39	24231.120356	311407079.507	ug/L	13.890
Ca	44	47324.194730	19787480.925	ug/L	612.998
Sc	45		243221.369	ug/L	
Ti	47	48.263255	52421.898	ug/L	0.317
Ti	48	97.230299	1147682.701	ug/L	4.201
V	51	1.300449	67306.580	ug/L	0.035
ClO	51		67895.606	ug/L	
Cr	52	3.380335	58588.474	ug/L	0.052
Cr	53	-0.075133	15428.235	ug/L	0.067
Fe	54	20694.736945	21545169.642	ug/L	91.429
Mn	55	974.098852	20735210.912	ug/L	4.355
Fe	56	20771.035457	362535596.272	ug/L	297.383
Fe	57	20789.338804	8637721.963	ug/L	292.735
Co	59	3.997025	63770.190	ug/L	0.049
Ni	60	9.455723	30093.026	ug/L	0.099
Ni	62	8.454752	4055.612	ug/L	0.024
Cu	63	4.217038	29926.810	ug/L	0.026
Zn	64	7.989923	29290.550	ug/L	0.018
Cu	65	4.057302	14414.897	ug/L	0.039
Zn	66	7.231314	16104.748	ug/L	0.070
Zn	68	8.831985	14436.932	ug/L	0.007
Ge	72		169944.650	ug/L	
As	75	53.254321	90991.107	ug/L	0.382
Se	82	2.360322	447.948	ug/L	0.186
ArCl	77		809.711	ug/L	
Br	79		185148.990	ug/L	

Br	81		210399.270	ug/L	
Y	89		443826.618	ug/L	
Mo	95	1.036173	4224.692	ug/L	0.036
Rh	103		387505.061	ug/L	
Ag	107	0.234031	3353.653	ug/L	0.013
Ag	109	0.240546	3279.291	ug/L	0.006
Cd	111	-0.007340	312.342	ug/L	0.007
Cd	114	0.018809	932.724	ug/L	0.003
In	115		562422.674	ug/L	
Sb	121	0.504717	4635.229	ug/L	0.028
Sb	123	0.505862	3570.386	ug/L	0.003
Ba	137	69.800634	380838.178	ug/L	0.324
Ba	138	67.393321	2388634.041	ug/L	0.872
Tb	159		778022.367	ug/L	
Ho	165		758629.522	ug/L	
Hg	200	0.016777	69.668	ug/L	0.003
Hg	202	0.011216	71.001	ug/L	0.004
Tl	205	-0.056001	2892.491	ug/L	0.008
Pb	208	1.758668	102878.514	ug/L	0.011
Bi	209		703075.069	ug/L	
Se	77	-0.136865	791.042	ug/L	0.103
Se	78	-5.520148	8959.299	ug/L	0.264

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		118.075
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	86.106
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	85.865
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.897
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123528.03
Sample Date/Time: Wednesday, August 21, 2013 19:30:28
Autosampler Position: 44
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.03.77644

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23328.571	ug/L	
Be	9	0.065225	56.334	ug/L	0.013
B	10	218.070704	31890.502	ug/L	3.688
B	11	219.312954	163357.107	ug/L	2.557
C	12		881284.275	ug/L	
Na	23	19605.139459	156133822.573	ug/L	112.250
Mg	24	15083.292999	83037704.559	ug/L	151.851
Mg	25	15204.052750	11884119.941	ug/L	266.171
Al	27	851.708125	7321916.872	ug/L	19.833
Si	28		47928559.493	ug/L	
P	31	577.624399	306112.283	ug/L	5.196
S	32		83395096.688	ug/L	
Cl	35		9612575.788	ug/L	
K	39	24778.857002	319768419.068	ug/L	459.950
Ca	44	47356.864353	19883768.511	ug/L	818.840
Sc	45		244234.660	ug/L	
Ti	47	61.518891	67030.222	ug/L	0.309
Ti	48	111.408172	1320737.683	ug/L	0.269
V	51	1.598750	72492.974	ug/L	0.042
ClO	51		74502.849	ug/L	
Cr	52	4.095704	68765.617	ug/L	0.105
Cr	53	0.685043	16773.647	ug/L	0.453
Fe	54	20778.437421	21723121.466	ug/L	531.669
Mn	55	964.729845	20622766.734	ug/L	25.004
Fe	56	21284.690932	372985783.897	ug/L	413.005
Fe	57	21357.362340	8911015.631	ug/L	387.722
Co	59	4.121254	65938.619	ug/L	0.043
Ni	60	9.820878	31383.728	ug/L	0.064
Ni	62	9.051134	4354.753	ug/L	0.127
Cu	63	4.522425	32207.285	ug/L	0.075
Zn	64	9.360894	33668.489	ug/L	0.073
Cu	65	4.447169	15851.299	ug/L	0.001
Zn	66	8.569493	18656.645	ug/L	0.075
Zn	68	10.187982	16384.918	ug/L	0.117
Ge	72		173028.462	ug/L	
As	75	52.917519	92058.930	ug/L	0.599
Se	82	2.389941	461.259	ug/L	0.016
ArCl	77		783.708	ug/L	
Br	79		187337.925	ug/L	

Br	81		215519.641	ug/L	
Y	89		448517.228	ug/L	
Mo	95	1.033535	4289.722	ug/L	0.040
Rh	103		391136.659	ug/L	
Ag	107	0.187064	2741.775	ug/L	0.013
Ag	109	0.189021	2634.741	ug/L	0.006
Cd	111	-0.007956	309.675	ug/L	0.002
Cd	114	0.008154	851.048	ug/L	0.001
In	115		560937.571	ug/L	
Sb	121	0.411637	3821.175	ug/L	0.009
Sb	123	0.408036	2910.314	ug/L	0.008
Ba	137	70.282585	382451.985	ug/L	0.235
Ba	138	68.948166	2437217.501	ug/L	0.704
Tb	159		764113.092	ug/L	
Ho	165		761652.445	ug/L	
Hg	200	0.015069	64.668	ug/L	0.003
Hg	202	0.012829	77.668	ug/L	0.003
Tl	205	-0.055141	2940.839	ug/L	0.004
Pb	208	1.918843	112570.326	ug/L	0.055
Bi	209		698086.996	ug/L	
Se	77	-0.013245	809.711	ug/L	0.265
Se	78	-5.133949	9146.395	ug/L	0.143

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		118.567
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.669
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.638
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 92.263
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04
Sample Date/Time: Wednesday, August 21, 2013 19:36:59
Autosampler Position: 45
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04.77645

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23820.500	ug/L	
Be	9	-0.007747	13.000	ug/L	0.003
B	10	65.784941	10209.834	ug/L	2.998
B	11	64.544334	51032.712	ug/L	2.713
C	12		725006.662	ug/L	
Na	23	10050.632817	84522104.606	ug/L	310.956
Mg	24	5055.530955	29388958.816	ug/L	140.581
Mg	25	5014.781197	4139227.611	ug/L	111.834
Al	27	2.982217	32340.652	ug/L	0.054
Si	28		52020053.369	ug/L	
P	31	122.613122	80227.102	ug/L	2.612
S	32		79102999.550	ug/L	
Cl	35		9511937.820	ug/L	
K	39	9044.265592	123764611.848	ug/L	178.858
Ca	44	27958.263742	12401553.571	ug/L	669.137
Sc	45		257968.319	ug/L	
Ti	47	3.161793	3891.205	ug/L	0.150
Ti	48	36.824986	460497.718	ug/L	1.259
V	51	-0.789365	35095.637	ug/L	0.070
ClO	51		35878.709	ug/L	
Cr	52	0.231034	15972.037	ug/L	0.041
Cr	53	-3.479589	10309.613	ug/L	0.192
Fe	54	36865.176470	40629198.239	ug/L	1135.233
Mn	55	979.596369	22107940.126	ug/L	38.221
Fe	56	37681.461384	694138767.841	ug/L	1399.291
Fe	57	37697.854018	16598537.452	ug/L	838.614
Co	59	3.588137	61024.746	ug/L	0.063
Ni	60	7.320099	24719.811	ug/L	0.215
Ni	62	6.407641	3277.624	ug/L	0.235
Cu	63	0.138504	1354.448	ug/L	0.002
Zn	64	-0.346855	3732.615	ug/L	0.028
Cu	65	0.068149	418.014	ug/L	0.003
Zn	66	-0.661473	1599.824	ug/L	0.058
Zn	68	0.068681	2428.682	ug/L	0.012
Ge	72		186032.328	ug/L	
As	75	200.781085	375909.871	ug/L	4.696
Se	82	0.948504	208.713	ug/L	0.204
ArCl	77		755.372	ug/L	
Br	79		79402.598	ug/L	

Br	81		101760.305	ug/L	
Y	89		433056.577	ug/L	
Mo	95	0.406998	1875.546	ug/L	0.044
Rh	103		408726.830	ug/L	
Ag	107	0.161477	2504.037	ug/L	0.003
Ag	109	0.155234	2299.647	ug/L	0.006
Cd	111	-0.072470	106.668	ug/L	0.004
Cd	114	-0.069906	280.674	ug/L	0.000
In	115		581603.705	ug/L	
Sb	121	0.196528	2035.248	ug/L	0.011
Sb	123	0.202520	1599.854	ug/L	0.017
Ba	137	13.090841	73906.609	ug/L	0.374
Ba	138	13.189929	483637.650	ug/L	0.425
Tb	159		799927.927	ug/L	
Ho	165		794747.747	ug/L	
Hg	200	0.004121	33.334	ug/L	0.002
Hg	202	0.000976	32.000	ug/L	0.001
Tl	205	-0.072160	2332.657	ug/L	0.004
Pb	208	0.005973	1474.396	ug/L	0.000
Bi	209		756880.636	ug/L	
Se	77	-0.309050	765.040	ug/L	0.084
Se	78	-4.789167	9313.427	ug/L	0.053

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		125.234
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 94.257
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.793
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 96.272
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MS
Sample Date/Time: Wednesday, August 21, 2013 19:43:31
Autosampler Position: 46
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MS.77646

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21450.642	ug/L	
Be	9	692.141520	405341.843	ug/L	1.180
B	10	66.110657	9440.327	ug/L	1.018
B	11	65.919272	47946.959	ug/L	1.526
C	12		1333861.918	ug/L	
Na	23	17337.819536	134124938.058	ug/L	41.680
Mg	24	12257.338672	65546454.472	ug/L	200.862
Mg	25	12258.475988	9307084.623	ug/L	140.301
Al	27	7341.051380	61262259.384	ug/L	63.875
Si	28		49640017.184	ug/L	
P	31	6404.752519	3160176.432	ug/L	158.743
S	32		78846714.680	ug/L	
Cl	35		10427534.937	ug/L	
K	39	16515.227876	207268027.909	ug/L	50.194
Ca	44	37118.090982	15141099.404	ug/L	185.017
Sc	45		237245.156	ug/L	
Ti	47	23.192171	24699.103	ug/L	0.776
Ti	48	47.816880	550278.995	ug/L	1.188
V	51	695.052323	11141963.991	ug/L	13.569
ClO	51		11433704.400	ug/L	
Cr	52	679.702477	9174532.298	ug/L	11.058
Cr	53	666.109032	1103947.999	ug/L	9.404
Fe	54	46541.435679	47167348.975	ug/L	358.483
Mn	55	1724.075718	35796459.784	ug/L	24.144
Fe	56	47874.837873	810381179.989	ug/L	990.782
Fe	57	47497.319964	19233996.250	ug/L	986.640
Co	59	667.942783	9923251.169	ug/L	10.415
Ni	60	661.682360	2049118.122	ug/L	8.815
Ni	62	663.327727	304834.236	ug/L	12.711
Cu	63	611.785287	4192201.523	ug/L	6.236
Zn	64	690.826110	2087454.220	ug/L	1.897
Cu	65	601.603765	2062693.417	ug/L	2.556
Zn	66	699.924780	1265120.814	ug/L	5.616
Zn	68	717.768794	972623.046	ug/L	5.593
Ge	72		176641.073	ug/L	
As	75	1110.288866	1974383.138	ug/L	30.877
Se	82	928.498816	175506.255	ug/L	15.165
ArCl	77		129636.723	ug/L	
Br	79		49241.989	ug/L	

Br	81		70324.423	ug/L	
Y	89		411583.398	ug/L	
Mo	95	1009.052675	4182178.587	ug/L	8.110
Rh	103		382459.333	ug/L	
Ag	107	49.537373	634051.999	ug/L	0.563
Ag	109	49.645856	611772.543	ug/L	1.131
Cd	111	952.170051	3051626.904	ug/L	30.164
Cd	114	954.733774	7094138.135	ug/L	29.460
In	115		560684.915	ug/L	
Sb	121	1182.359271	10196569.185	ug/L	28.688
Sb	123	1182.506391	7855587.172	ug/L	27.080
Ba	137	980.480326	5329618.770	ug/L	34.611
Ba	138	966.602467	34133008.915	ug/L	35.834
Tb	159		754398.570	ug/L	
Ho	165		740581.277	ug/L	
Hg	200	1.080522	3162.582	ug/L	0.017
Hg	202	1.075339	4165.996	ug/L	0.011
Tl	205	1024.694692	41507757.658	ug/L	2.389
Pb	208	1006.475893	56883817.877	ug/L	17.051
Bi	209		706707.684	ug/L	
Se	77	851.206927	129356.857	ug/L	11.547
Se	78	848.178052	422539.156	ug/L	6.616

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		115.174
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.499
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.600
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 89.710
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MSD
Sample Date/Time: Wednesday, August 21, 2013 19:50:03
Autosampler Position: 47
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MSD.77647

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		20687.529	ug/L	
Be	9	679.510443	394680.890	ug/L	33.137
B	10	66.048808	9358.909	ug/L	1.205
B	11	64.637787	46659.247	ug/L	1.179
C	12		1318687.496	ug/L	
Na	23	17268.879126	132496601.004	ug/L	837.652
Mg	24	12101.818502	64200252.065	ug/L	421.929
Mg	25	12119.920849	9129180.102	ug/L	383.074
Al	27	7281.557651	60276958.045	ug/L	290.581
Si	28		48695230.585	ug/L	
P	31	6399.612554	3132241.678	ug/L	263.936
S	32		76300052.393	ug/L	
Cl	35		10361933.569	ug/L	
K	39	16493.463528	205366539.473	ug/L	484.304
Ca	44	36950.677797	14950815.723	ug/L	1582.292
Sc	45		235494.196	ug/L	
Ti	47	22.539437	23826.424	ug/L	0.457
Ti	48	48.321163	551920.144	ug/L	0.410
V	51	694.090973	11039744.009	ug/L	18.503
ClO	51		11242280.922	ug/L	
Cr	52	669.692171	8969775.394	ug/L	14.296
Cr	53	656.100738	1078982.796	ug/L	21.590
Fe	54	46454.923274	46715206.458	ug/L	1026.129
Mn	55	1703.945723	35098096.546	ug/L	56.645
Fe	56	47318.706446	794818599.856	ug/L	1043.749
Fe	57	47332.769125	19017494.952	ug/L	1299.554
Co	59	662.615455	9764885.581	ug/L	26.936
Ni	60	653.756366	2008489.670	ug/L	22.392
Ni	62	651.206743	296914.084	ug/L	19.176
Cu	63	603.399927	4102144.272	ug/L	18.417
Zn	64	676.365336	2027563.113	ug/L	23.771
Cu	65	591.133818	2010646.630	ug/L	20.762
Zn	66	687.256458	1232362.911	ug/L	24.631
Zn	68	708.146302	951831.605	ug/L	30.950
Ge	72		175055.040	ug/L	
As	75	1098.830008	1936280.183	ug/L	29.105
Se	82	909.684411	170378.988	ug/L	23.575
ArCl	77		128988.302	ug/L	
Br	79		45772.601	ug/L	

Br	81		66412.465	ug/L	
Y	89		402730.463	ug/L	
Mo	95	1001.435640	4113081.635	ug/L	11.214
Rh	103		384289.316	ug/L	
Ag	107	52.935064	655263.673	ug/L	3.263
Ag	109	52.439653	625153.267	ug/L	2.818
Cd	111	971.447485	3013430.519	ug/L	36.559
Cd	114	974.345710	7007490.922	ug/L	35.387
In	115		542881.707	ug/L	
Sb	121	1181.161653	9859615.727	ug/L	36.334
Sb	123	1187.375785	7634052.491	ug/L	42.671
Ba	137	986.538205	5189442.602	ug/L	47.725
Ba	138	988.883444	33795690.883	ug/L	44.524
Tb	159		754034.396	ug/L	
Ho	165		744344.531	ug/L	
Hg	200	1.048548	3084.221	ug/L	0.035
Hg	202	1.032897	4023.264	ug/L	0.011
Tl	205	1006.735774	40973627.911	ug/L	32.476
Pb	208	986.998417	56055769.618	ug/L	22.396
Bi	209		686818.077	ug/L	
Se	77	839.575070	127600.271	ug/L	11.197
Se	78	838.508390	417854.623	ug/L	4.096

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		114.324
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.696
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 82.882
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.166
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MS
Sample Date/Time: Wednesday, August 21, 2013 19:56:35
Autosampler Position: 48
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MS.77648

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21230.102	ug/L	
Be	9	714.874064	404658.380	ug/L	25.899
B	10	64.805409	8949.494	ug/L	0.905
B	11	64.328783	45241.754	ug/L	1.679
C	12		1269329.889	ug/L	
Na	23	17399.847148	130100180.435	ug/L	664.338
Mg	24	12336.886824	63778098.000	ug/L	336.004
Mg	25	12380.055883	9085937.589	ug/L	399.128
Al	27	7583.629727	61165260.807	ug/L	314.344
Si	28		46568170.047	ug/L	
P	31	6672.114099	3182348.860	ug/L	155.211
S	32		75825250.950	ug/L	
Cl	35		10097183.642	ug/L	
K	39	16491.424236	200084627.151	ug/L	452.871
Ca	44	36613.332802	14436083.763	ug/L	1335.229
Sc	45		229468.585	ug/L	
Ti	47	23.114209	23791.997	ug/L	0.992
Ti	48	50.209769	559000.785	ug/L	0.380
V	51	735.095334	11389575.282	ug/L	20.056
ClO	51		11563558.675	ug/L	
Cr	52	708.177963	9237258.639	ug/L	32.889
Cr	53	695.837334	1113635.060	ug/L	38.756
Fe	54	46311.894047	45355846.053	ug/L	2254.464
Mn	55	1735.798600	34825323.330	ug/L	90.012
Fe	56	47182.566469	771879801.011	ug/L	2210.076
Fe	57	47040.891267	18408101.322	ug/L	2354.646
Co	59	698.770878	10032304.130	ug/L	32.480
Ni	60	693.567938	2075851.740	ug/L	29.235
Ni	62	694.942439	308684.275	ug/L	25.758
Cu	63	638.923525	4231667.919	ug/L	24.427
Zn	64	717.464007	2094883.094	ug/L	33.800
Cu	65	626.337618	2075393.961	ug/L	27.719
Zn	66	729.316578	1273990.643	ug/L	29.148
Zn	68	745.022878	975633.900	ug/L	31.070
Ge	72		174363.422	ug/L	
As	75	1117.423206	1961092.022	ug/L	32.660
Se	82	951.915416	177575.758	ug/L	23.803
ArCl	77		132414.019	ug/L	
Br	79		72164.068	ug/L	

Br	81		93227.343	ug/L	
Y	89		404573.107	ug/L	
Mo	95	1021.961501	4180884.356	ug/L	7.840
Rh	103		380119.122	ug/L	
Ag	107	826.360637	10403823.279	ug/L	13.960
Ag	109	822.515040	9972588.262	ug/L	6.846
Cd	111	988.665613	3118644.743	ug/L	30.939
Cd	114	988.767943	7231371.747	ug/L	28.052
In	115		551812.374	ug/L	
Sb	121	1193.160951	10129942.016	ug/L	1.335
Sb	123	1194.326385	7810318.497	ug/L	7.631
Ba	137	997.264676	5335987.119	ug/L	25.862
Ba	138	999.260201	34737162.202	ug/L	19.176
Tb	159		767573.552	ug/L	
Ho	165		754878.516	ug/L	
Hg	200	1.081246	3224.604	ug/L	0.033
Hg	202	1.089035	4299.393	ug/L	0.012
Tl	205	1013.664893	41833585.575	ug/L	35.846
Pb	208	990.446711	57045287.883	ug/L	20.575
Bi	209		668039.910	ug/L	
Se	77	858.628641	130477.649	ug/L	4.946
Se	78	864.540522	430466.065	ug/L	0.304

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		111.398
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.345
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.245
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.442
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MSD
Sample Date/Time: Wednesday, August 21, 2013 20:03:08
Autosampler Position: 49
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MSD.77649

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		20909.372	ug/L	
Be	9	712.657681	401803.534	ug/L	24.253
B	10	65.736658	9040.250	ug/L	0.846
B	11	63.995242	44835.418	ug/L	0.904
C	12		1266594.570	ug/L	
Na	23	17525.539129	130541279.825	ug/L	450.958
Mg	24	12389.202709	63794515.102	ug/L	284.103
Mg	25	12421.162860	9080664.111	ug/L	296.811
Al	27	7576.713735	60881922.857	ug/L	184.710
Si	28		46916656.907	ug/L	
P	31	6641.844488	3155249.226	ug/L	141.363
S	32		74735365.818	ug/L	
Cl	35		10144941.090	ug/L	
K	39	16675.090298	201485419.241	ug/L	479.922
Ca	44	37116.764623	14578695.428	ug/L	878.899
Sc	45		228521.846	ug/L	
Ti	47	22.705574	23286.352	ug/L	0.730
Ti	48	48.941815	542170.743	ug/L	2.218
V	51	738.521327	11395236.711	ug/L	24.806
ClO	51		11610837.289	ug/L	
Cr	52	712.417891	9256871.728	ug/L	26.895
Cr	53	692.335858	1104109.691	ug/L	23.279
Fe	54	46333.454676	45214151.958	ug/L	1120.432
Mn	55	1729.076891	34564673.368	ug/L	53.135
Fe	56	47029.058729	766473405.099	ug/L	1620.574
Fe	57	46747.579022	18226010.133	ug/L	1509.316
Co	59	687.075737	9827722.944	ug/L	20.931
Ni	60	683.740175	2038584.423	ug/L	22.408
Ni	62	682.130925	301788.795	ug/L	24.520
Cu	63	627.050500	4136302.775	ug/L	25.468
Zn	64	706.454702	2054937.330	ug/L	26.302
Cu	65	620.558948	2048283.609	ug/L	23.387
Zn	66	722.656085	1257288.278	ug/L	31.058
Zn	68	746.774158	973993.596	ug/L	32.922
Ge	72		173739.557	ug/L	
As	75	1114.765384	1949435.402	ug/L	35.459
Se	82	935.158255	173819.077	ug/L	29.043
ArCl	77		130858.753	ug/L	
Br	79		72481.682	ug/L	

Br	81		93566.549	ug/L	
Y	89		403847.762	ug/L	
Mo	95	1024.616669	4176637.995	ug/L	11.076
Rh	103		379911.946	ug/L	
Ag	107	842.542259	10445154.371	ug/L	32.475
Ag	109	832.922382	9942349.030	ug/L	37.960
Cd	111	992.687089	3084099.837	ug/L	32.658
Cd	114	992.310200	7147563.351	ug/L	32.903
In	115		543529.476	ug/L	
Sb	121	1187.902372	9933682.197	ug/L	3.339
Sb	123	1192.338458	7681091.099	ug/L	3.367
Ba	137	1008.044716	5312114.875	ug/L	31.482
Ba	138	1006.236577	34448253.622	ug/L	31.403
Tb	159		748795.155	ug/L	
Ho	165		737462.199	ug/L	
Hg	200	1.073187	3125.235	ug/L	0.047
Hg	202	1.069930	4126.311	ug/L	0.015
Tl	205	1014.253224	40879343.925	ug/L	37.939
Pb	208	996.767970	56057430.544	ug/L	36.081
Bi	209		669041.894	ug/L	
Se	77	851.976640	129473.095	ug/L	4.949
Se	78	846.658300	421802.902	ug/L	0.373

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		110.939
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 88.029
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 82.980
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 89.333
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123528.02
Sample Date/Time: Thursday, August 22, 2013 14:09:07
Autosampler Position: 43
Sample Description: 1:1 Ca LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.02.77809

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22666.934	ug/L	
Be	9	0.025645	25.000	ug/L	0.005
B	10	133.107006	15010.873	ug/L	3.039
B	11	133.577171	76725.976	ug/L	2.464
C	12		599620.144	ug/L	
Na	23	12096.708108	74181505.958	ug/L	46.288
Mg	24	9227.550667	39114919.410	ug/L	25.661
Mg	25	9246.593944	5565025.182	ug/L	54.859
Al	27	424.734311	2813397.470	ug/L	5.401
Si	28		21582468.860	ug/L	
P	31	334.515806	141009.177	ug/L	4.570
S	32		77673199.749	ug/L	
Cl	35		8732188.936	ug/L	
K	39	14630.184309	145598445.577	ug/L	208.351
Ca	44	27543.601098	8908017.077	ug/L	475.694
Sc	45		188054.563	ug/L	
Ti	47	28.205988	23767.934	ug/L	0.278
Ti	48	64.328099	586925.504	ug/L	1.283
V	51	0.561818	42691.432	ug/L	0.032
ClO	51		43748.456	ug/L	
Cr	52	2.020497	30769.049	ug/L	0.015
Cr	53	-0.824915	10957.376	ug/L	0.035
Fe	54	12605.698420	10171800.073	ug/L	316.403
Mn	55	598.078821	9844710.368	ug/L	8.357
Fe	56	12854.259359	174572687.308	ug/L	146.798
Fe	57	12884.815212	4143175.931	ug/L	52.617
Co	59	2.379378	30264.270	ug/L	0.022
Ni	60	5.801594	14297.711	ug/L	0.046
Ni	62	5.152567	1932.891	ug/L	0.128
Cu	63	2.608990	14404.213	ug/L	0.046
Zn	64	4.623868	14601.798	ug/L	0.007
Cu	65	2.521219	6970.741	ug/L	0.033
Zn	66	4.222110	8149.399	ug/L	0.012
Zn	68	5.032985	7091.169	ug/L	0.064
Ge	72		152555.191	ug/L	
As	75	27.552407	42188.677	ug/L	0.667
Se	82	1.391458	243.394	ug/L	0.129
ArCl	77		673.365	ug/L	
Br	79		88275.952	ug/L	

Br	81		110453.968	ug/L	
Y	89		404051.385	ug/L	
Mo	95	0.705267	2607.400	ug/L	0.012
Rh	103		378825.285	ug/L	
Ag	107	0.245960	3419.678	ug/L	0.020
Ag	109	0.256693	3394.001	ug/L	0.014
Cd	111	-0.055160	155.003	ug/L	0.003
Cd	114	-0.046944	432.348	ug/L	0.002
In	115		549106.867	ug/L	
Sb	121	0.557447	4970.075	ug/L	0.016
Sb	123	0.560747	3842.087	ug/L	0.011
Ba	137	33.953452	180819.791	ug/L	1.291
Ba	138	33.805083	1169453.301	ug/L	1.317
Tb	159		747572.793	ug/L	
Ho	165		739326.559	ug/L	
Hg	200	0.009961	48.001	ug/L	0.001
Hg	202	0.010167	65.001	ug/L	0.001
Tl	205	-0.056319	2804.796	ug/L	0.008
Pb	208	0.892784	51395.098	ug/L	0.021
Bi	209		710833.195	ug/L	
Se	77	-0.980123	663.698	ug/L	0.034
Se	78	-7.102491	8192.722	ug/L	0.284

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		91.293
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
> Ge 77.296
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
> In 83.832
Sb
Sb
Ba
Ba
Tb
> Ho 89.558
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123528.03
Sample Date/Time: Thursday, August 22, 2013 14:15:38
Autosampler Position: 44
Sample Description: 1:1 Ca LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.03.77810

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22276.615	ug/L	
Be	9	0.048958	35.667	ug/L	0.013
B	10	135.923540	15323.730	ug/L	2.893
B	11	137.099258	78684.861	ug/L	5.589
C	12		620460.314	ug/L	
Na	23	12495.445966	76564759.382	ug/L	582.649
Mg	24	9582.080097	40587768.037	ug/L	424.028
Mg	25	9578.677550	5761537.545	ug/L	360.620
Al	27	522.899976	3460320.548	ug/L	21.445
Si	28		22632164.523	ug/L	
P	31	362.954269	151968.073	ug/L	18.757
S	32		80273816.745	ug/L	
Cl	35		8738223.741	ug/L	
K	39	15138.164346	150564890.259	ug/L	556.766
Ca	44	28133.667271	9091246.558	ug/L	1432.628
Sc	45		188136.040	ug/L	
Ti	47	36.221388	30444.531	ug/L	1.684
Ti	48	72.054291	657553.152	ug/L	1.150
V	51	0.723917	44728.906	ug/L	0.107
ClO	51		45641.410	ug/L	
Cr	52	2.446955	35297.018	ug/L	0.162
Cr	53	-0.460051	11420.950	ug/L	0.423
Fe	54	12904.152982	10405336.875	ug/L	433.224
Mn	55	602.406266	9910446.121	ug/L	21.143
Fe	56	13042.209100	177003115.440	ug/L	421.601
Fe	57	13334.604221	4285993.574	ug/L	386.771
Co	59	2.501988	31689.459	ug/L	0.100
Ni	60	6.195607	15255.275	ug/L	0.262
Ni	62	5.590418	2091.261	ug/L	0.234
Cu	63	2.952804	16269.046	ug/L	0.076
Zn	64	6.297445	18599.615	ug/L	0.164
Cu	65	2.788494	7693.999	ug/L	0.097
Zn	66	5.773306	10361.339	ug/L	0.275
Zn	68	6.567511	8726.941	ug/L	0.439
Ge	72		154792.462	ug/L	
As	75	26.859963	41727.606	ug/L	0.759
Se	82	1.239537	222.307	ug/L	0.100
ArCl	77		642.362	ug/L	
Br	79		89174.078	ug/L	

Br	81		111307.391	ug/L	
Y	89		405101.472	ug/L	
Mo	95	1.018463	3782.825	ug/L	0.005
Rh	103		370085.925	ug/L	
Ag	107	0.191710	2678.088	ug/L	0.009
Ag	109	0.200164	2650.079	ug/L	0.007
Cd	111	-0.053420	156.336	ug/L	0.005
Cd	114	-0.041748	459.016	ug/L	0.001
In	115		536465.821	ug/L	
Sb	121	0.445883	3935.558	ug/L	0.006
Sb	123	0.447779	3035.562	ug/L	0.007
Ba	137	36.232183	188500.863	ug/L	1.035
Ba	138	36.353396	1228600.165	ug/L	1.033
Tb	159		736767.375	ug/L	
Ho	165		733116.571	ug/L	
Hg	200	0.012402	54.334	ug/L	0.003
Hg	202	0.007636	54.667	ug/L	0.001
Tl	205	-0.052826	2908.830	ug/L	0.012
Pb	208	0.998847	56825.811	ug/L	0.046
Bi	209		682978.528	ug/L	
Se	77	-1.251641	622.694	ug/L	0.331
Se	78	-6.855256	8312.496	ug/L	0.028

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		91.333
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	78.429
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	81.902
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	88.806
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123528.04
Sample Date/Time: Thursday, August 22, 2013 10:20:40
Autosampler Position: 45
Sample Description: 1:1 Sc met check
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04.77775

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25007.699	ug/L	
Be	9	-0.013014	8.000	ug/L	0.002
B	10	39.334877	5083.805	ug/L	0.007
B	11	39.464811	25980.339	ug/L	0.623
C	12		529588.381	ug/L	
Na	23	6321.076018	44041908.797	ug/L	32.400
Mg	24	3200.411801	15412104.673	ug/L	51.303
Mg	25	3199.932681	2187890.366	ug/L	51.210
Al	27	2.751920	25056.987	ug/L	0.026
Si	28		25907416.665	ug/L	
P	31	74.755372	45280.338	ug/L	0.237
S	32		76523964.437	ug/L	
Cl	35		9374873.943	ug/L	
K	39	5548.843022	63160094.576	ug/L	37.470
Ca	44	16408.480703	6034441.440	ug/L	20.571
Sc	45		213645.335	ug/L	
Ti	47	1.752259	1885.881	ug/L	0.047
Ti	48	22.401128	231836.702	ug/L	0.683
V	51	-0.921103	27180.845	ug/L	0.022
ClO	51		27920.090	ug/L	
Cr	52	0.094365	11573.657	ug/L	0.002
Cr	53	-3.474528	8548.770	ug/L	0.033
Fe	54	22121.532317	20224899.146	ug/L	66.426
Mn	55	589.512634	11023582.170	ug/L	2.010
Fe	56	22570.098136	345780669.004	ug/L	330.511
Fe	57	22762.342453	8306537.731	ug/L	106.697
Co	59	2.115231	30847.891	ug/L	0.007
Ni	60	4.435854	12434.956	ug/L	0.042
Ni	62	3.959848	1702.843	ug/L	0.107
Cu	63	0.142583	1147.084	ug/L	0.002
Zn	64	-0.445399	2824.837	ug/L	0.037
Cu	65	0.110597	477.351	ug/L	0.002
Zn	66	-0.617419	1397.455	ug/L	0.002
Zn	68	-0.247737	1625.828	ug/L	0.037
Ge	72		178885.605	ug/L	
As	75	102.768768	184968.532	ug/L	0.720
Se	82	0.463109	107.970	ug/L	0.075
ArCl	77		657.697	ug/L	
Br	79		35055.863	ug/L	

Br	81		56029.706	ug/L	
Y	89		441230.029	ug/L	
Mo	95	0.556509	2432.683	ug/L	0.019
Rh	103		416139.034	ug/L	
Ag	107	0.034458	847.048	ug/L	0.003
Ag	109	0.037969	829.713	ug/L	0.003
Cd	111	-0.086591	61.667	ug/L	0.003
Cd	114	-0.087142	153.003	ug/L	0.002
In	115		601902.145	ug/L	
Sb	121	0.101301	1225.762	ug/L	0.001
Sb	123	0.100014	926.087	ug/L	0.002
Ba	137	6.390369	37391.448	ug/L	0.134
Ba	138	6.387324	242696.953	ug/L	0.103
Tb	159		825758.448	ug/L	
Ho	165		809770.026	ug/L	
Hg	200	0.000234	21.667	ug/L	0.001
Hg	202	-0.000583	26.000	ug/L	0.002
Tl	205	-0.075602	2222.629	ug/L	0.006
Pb	208	0.004528	1413.058	ug/L	0.001
Bi	209		835160.848	ug/L	
Se	77	-0.887410	677.699	ug/L	0.247
Se	78	-3.934973	9727.247	ug/L	0.063

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		103.717
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 90.636
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 91.892
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.092
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MS
Sample Date/Time: Thursday, August 22, 2013 11:50:22
Autosampler Position: 46
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MS.77788

Report Sc mets w/ low rec

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23420.797	ug/L	
Be	9	417.875424	216573.842	ug/L	11.979
B	10	39.104484	4968.407	ug/L	0.307
B	11	39.787419	25736.636	ug/L	1.064
C	12		792810.748	ug/L	
Na	23	10613.234265	72665089.646	ug/L	275.331
Mg	24	7538.953459	35681399.683	ug/L	158.970
Mg	25	7528.900143	5058846.704	ug/L	202.243
Al	27	4449.836818	32867202.159	ug/L	99.636
Si	28		26146840.044	ug/L	
P	31	3984.474801	1744528.689	ug/L	90.601
S	32		81485099.973	ug/L	
Cl	35		10216707.510	ug/L	
K	39	10019.229519	111571353.430	ug/L	59.904
Ca	44	21731.017418	7852582.917	ug/L	37.130
Sc	45		210032.751	ug/L	
Ti	47	14.707412	13947.837	ug/L	0.081
Ti	48	29.235997	297461.268	ug/L	1.386
V	51	409.202512	5822430.112	ug/L	6.821
ClO	51		5880419.591	ug/L	
Cr	52	394.818681	4721590.643	ug/L	4.504
Cr	53	387.911898	574608.957	ug/L	8.060
Fe	54	27596.862184	24779568.929	ug/L	667.060
Mn	55	1013.173836	18621422.871	ug/L	11.173
Fe	56	28295.955644	425292256.000	ug/L	250.215
Fe	57	28484.787368	10215252.920	ug/L	242.565
Co	59	401.125786	5276711.791	ug/L	0.798
Ni	60	400.937341	1099042.968	ug/L	5.786
Ni	62	398.394859	162042.371	ug/L	12.625
Cu	63	376.135921	2281061.480	ug/L	10.485
Zn	64	422.992103	1132618.165	ug/L	12.755
Cu	65	375.556676	1139579.704	ug/L	10.531
Zn	66	433.847936	694870.268	ug/L	12.428
Zn	68	440.425514	528925.593	ug/L	9.925
Ge	72		175903.422	ug/L	
As	75	586.581757	1038694.734	ug/L	6.966
Se	82	487.096672	91687.565	ug/L	7.350
ArCl	77		68575.020	ug/L	
Br	79		26107.812	ug/L	

Br	81		47282.178	ug/L	
Y	89		428634.107	ug/L	
Mo	95	514.508105	2123693.749	ug/L	0.322
Rh	103		405087.962	ug/L	
Ag	107	27.660540	370347.728	ug/L	0.049
Ag	109	27.945004	360253.806	ug/L	0.076
Cd	111	486.178182	1629785.021	ug/L	2.316
Cd	114	486.742634	3782950.074	ug/L	2.356
In	115		586178.151	ug/L	
Sb	121	583.882502	5265731.219	ug/L	5.123
Sb	123	592.012313	4112563.912	ug/L	7.517
Ba	137	493.567220	2806181.885	ug/L	0.494
Ba	138	491.443798	18151725.460	ug/L	0.998
Tb	159		799410.568	ug/L	
Ho	165		792363.026	ug/L	
Hg	200	0.506576	1597.156	ug/L	0.007
Hg	202	0.509748	2127.270	ug/L	0.007
Tl	205	490.572728	21264766.477	ug/L	1.502
Pb	208	487.809977	29497800.786	ug/L	4.594
Bi	209		742421.921	ug/L	
Se	77	447.477696	68387.625	ug/L	4.560
Se	78	444.945057	227190.209	ug/L	3.075

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		101.963
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	89.125
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	89.492
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	95.983
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123528.04 MSD
Sample Date/Time: Thursday, August 22, 2013 11:56:54
Autosampler Position: 47
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MSD.77789

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23102.656	ug/L	
Be	9	421.823837	209500.914	ug/L	8.718
B	10	40.428421	4920.381	ug/L	0.643
B	11	40.801807	25292.415	ug/L	0.976
C	12		780263.382	ug/L	
Na	23	10918.614570	71657802.978	ug/L	208.527
Mg	24	7647.834980	34694028.231	ug/L	134.175
Mg	25	7635.180200	4917781.188	ug/L	156.591
Al	27	4471.646268	31657272.537	ug/L	71.345
Si	28		25245936.977	ug/L	
P	31	3960.372034	1662044.988	ug/L	55.410
S	32		79664128.528	ug/L	
Cl	35		9830219.505	ug/L	
K	39	9947.000942	106141836.983	ug/L	65.491
Ca	44	21585.506850	7473633.079	ug/L	142.788
Sc	45		201226.981	ug/L	
Ti	47	14.273938	12973.714	ug/L	0.096
Ti	48	29.464587	287248.567	ug/L	2.015
V	51	408.532026	5569739.014	ug/L	6.915
ClO	51		5612286.867	ug/L	
Cr	52	396.922609	4548074.878	ug/L	3.429
Cr	53	392.205072	556568.432	ug/L	4.786
Fe	54	27923.867560	24026816.390	ug/L	327.997
Mn	55	1022.687878	18009911.382	ug/L	7.116
Fe	56	28187.015527	405933765.263	ug/L	166.847
Fe	57	28247.870525	9706370.279	ug/L	147.650
Co	59	398.821964	5026358.184	ug/L	2.332
Ni	60	403.096902	1058732.533	ug/L	5.237
Ni	62	399.950756	155894.539	ug/L	8.672
Cu	63	380.306467	2210223.225	ug/L	5.746
Zn	64	429.364165	1101771.867	ug/L	4.854
Cu	65	378.700187	1101300.600	ug/L	2.516
Zn	66	433.360640	665221.190	ug/L	2.372
Zn	68	441.207765	507779.247	ug/L	2.452
Ge	72		174152.499	ug/L	
As	75	569.095477	997811.060	ug/L	2.890
Se	82	478.752487	89230.587	ug/L	4.851
ArCl	77		66709.885	ug/L	
Br	79		25089.586	ug/L	

Br	81		45934.614	ug/L	
Y	89		426921.426	ug/L	
Mo	95	499.689086	2041964.676	ug/L	1.507
Rh	103		401378.750	ug/L	
Ag	107	30.438034	405369.794	ug/L	0.169
Ag	109	30.499942	391108.632	ug/L	0.383
Cd	111	473.425624	1578793.059	ug/L	0.758
Cd	114	472.618940	3654136.479	ug/L	5.003
In	115		583109.120	ug/L	
Sb	121	569.947757	5113549.113	ug/L	7.206
Sb	123	574.222500	3968522.522	ug/L	5.168
Ba	137	480.479436	2717496.290	ug/L	1.163
Ba	138	475.955667	17487915.591	ug/L	0.043
Tb	159		798976.034	ug/L	
Ho	165		788583.732	ug/L	
Hg	200	0.507225	1591.822	ug/L	0.016
Hg	202	0.498576	2071.590	ug/L	0.006
Tl	205	478.210480	20629624.046	ug/L	0.886
Pb	208	468.532742	28198244.767	ug/L	5.285
Bi	209		715481.684	ug/L	
Se	77	428.170430	65471.935	ug/L	7.360
Se	78	429.704906	219807.015	ug/L	6.629

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		97.688
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.238
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 89.023
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.525
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123528.04 MS
Sample Date/Time: Thursday, August 22, 2013 12:03:27
Autosampler Position: 48
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MS.77790

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23443.532	ug/L	
Be	9	441.547920	219310.734	ug/L	4.599
B	10	39.820742	4846.340	ug/L	0.474
B	11	39.515859	24498.551	ug/L	0.745
C	12		841366.263	ug/L	
Na	23	10805.506023	70900692.084	ug/L	311.257
Mg	24	7693.908028	34895724.062	ug/L	144.879
Mg	25	7702.645646	4960044.341	ug/L	103.468
Al	27	4649.299355	32908043.666	ug/L	51.227
Si	28		24615433.898	ug/L	
P	31	4150.251172	1740842.467	ug/L	28.736
S	32		76003301.491	ug/L	
Cl	35		9889134.830	ug/L	
K	39	9909.997942	105733754.990	ug/L	41.730
Ca	44	21094.950772	7303029.268	ug/L	56.262
Sc	45		201208.979	ug/L	
Ti	47	14.205894	12912.293	ug/L	0.105
Ti	48	29.348405	286249.597	ug/L	0.208
V	51	421.894690	5751003.237	ug/L	3.747
ClO	51		5813049.678	ug/L	
Cr	52	410.949701	4708413.064	ug/L	3.720
Cr	53	405.256453	574662.480	ug/L	1.680
Fe	54	27253.436332	23451940.007	ug/L	304.599
Mn	55	1026.344870	18073767.831	ug/L	2.802
Fe	56	28121.118555	404979887.556	ug/L	292.389
Fe	57	28105.617730	9657108.390	ug/L	51.071
Co	59	416.720305	5251554.947	ug/L	3.158
Ni	60	418.708416	1099753.203	ug/L	0.661
Ni	62	417.089076	162585.601	ug/L	1.311
Cu	63	391.314498	2274260.743	ug/L	0.793
Zn	64	441.762682	1133479.118	ug/L	0.132
Cu	65	391.850228	1139503.341	ug/L	1.761
Zn	66	453.481308	695975.297	ug/L	2.629
Zn	68	458.961968	528126.128	ug/L	7.702
Ge	72		173048.946	ug/L	
As	75	586.410207	1021642.040	ug/L	5.729
Se	82	497.130263	92074.131	ug/L	1.496
ArCl	77		69046.259	ug/L	
Br	79		35428.560	ug/L	

Br	81		56682.623	ug/L	
Y	89		423484.577	ug/L	
Mo	95	522.338495	2121383.387	ug/L	13.974
Rh	103		399608.566	ug/L	
Ag	107	314.533508	4139164.763	ug/L	20.218
Ag	109	300.457722	3806984.897	ug/L	0.390
Cd	111	496.395774	1636860.817	ug/L	0.230
Cd	114	497.565013	3803924.775	ug/L	1.554
In	115		576585.529	ug/L	
Sb	121	579.402154	5140486.153	ug/L	21.315
Sb	123	584.499570	3994626.917	ug/L	26.133
Ba	137	505.968432	2829673.477	ug/L	4.341
Ba	138	498.243002	18101919.330	ug/L	1.065
Tb	159		812003.398	ug/L	
Ho	165		796965.080	ug/L	
Hg	200	0.520740	1650.833	ug/L	0.008
Hg	202	0.506725	2126.937	ug/L	0.020
Tl	205	488.569993	21296505.098	ug/L	20.315
Pb	208	484.078333	29442386.162	ug/L	6.574
Bi	209		723551.856	ug/L	
Se	77	446.990748	68314.088	ug/L	6.589
Se	78	449.780894	229532.963	ug/L	1.940

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		97.679
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	87.679
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	88.027
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	96.541
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123528.04 MSD
Sample Date/Time: Thursday, August 22, 2013 12:10:00
Autosampler Position: 49
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123528.04 MSD.77791

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23304.501	ug/L	
Be	9	422.851736	211723.877	ug/L	12.157
B	10	37.124226	4558.189	ug/L	1.768
B	11	38.792305	24248.547	ug/L	1.334
C	12		838540.196	ug/L	
Na	23	10704.493461	70810716.586	ug/L	103.500
Mg	24	7515.922886	34365686.180	ug/L	116.431
Mg	25	7486.546729	4859810.606	ug/L	199.063
Al	27	4498.267604	32096318.729	ug/L	118.527
Si	28		24498021.253	ug/L	
P	31	4036.416456	1707254.977	ug/L	42.006
S	32		75857623.775	ug/L	
Cl	35		9934895.149	ug/L	
K	39	9734.449411	104714997.106	ug/L	223.185
Ca	44	20811.226455	7263489.802	ug/L	419.492
Sc	45		202868.056	ug/L	
Ti	47	13.505652	12388.562	ug/L	0.195
Ti	48	29.511319	290219.817	ug/L	0.127
V	51	413.875262	5688488.305	ug/L	4.849
ClO	51		5786284.744	ug/L	
Cr	52	404.866880	4676661.015	ug/L	5.979
Cr	53	394.908933	564878.903	ug/L	7.560
Fe	54	26876.319483	23314685.190	ug/L	795.030
Mn	55	994.106589	17647933.548	ug/L	23.604
Fe	56	27081.605653	393252418.479	ug/L	970.896
Fe	57	27087.212568	9383448.657	ug/L	414.398
Co	59	399.692095	5077928.409	ug/L	9.566
Ni	60	403.457565	1068386.298	ug/L	3.092
Ni	62	401.562144	157824.128	ug/L	1.074
Cu	63	381.847611	2237193.957	ug/L	10.392
Zn	64	431.029504	1115032.647	ug/L	7.918
Cu	65	378.890972	1110744.805	ug/L	9.097
Zn	66	439.538394	680090.966	ug/L	12.526
Zn	68	442.616613	513515.013	ug/L	8.436
Ge	72		172194.202	ug/L	
As	75	577.376390	1000989.592	ug/L	0.269
Se	82	487.457081	89841.655	ug/L	4.727
ArCl	77		67590.679	ug/L	
Br	79		35269.286	ug/L	

Br	81		55893.923	ug/L	
Y	89		421948.088	ug/L	
Mo	95	511.922536	2068678.242	ug/L	13.778
Rh	103		399572.391	ug/L	
Ag	107	285.008986	3777489.480	ug/L	21.895
Ag	109	299.790400	3825530.516	ug/L	14.051
Cd	111	484.784204	1609529.549	ug/L	1.418
Cd	114	484.420643	3728879.946	ug/L	0.433
In	115		580544.040	ug/L	
Sb	121	566.940155	5064893.825	ug/L	16.305
Sb	123	571.754401	3934556.390	ug/L	14.100
Ba	137	493.565064	2779228.183	ug/L	0.294
Ba	138	488.333623	17863356.876	ug/L	2.244
Tb	159		805036.866	ug/L	
Ho	165		785632.965	ug/L	
Hg	200	0.489854	1532.144	ug/L	0.013
Hg	202	0.522532	2161.612	ug/L	0.010
Tl	205	489.463797	21036038.733	ug/L	1.795
Pb	208	480.423252	28806372.446	ug/L	0.501
Bi	209		741473.488	ug/L	
Se	77	438.031065	66961.040	ug/L	2.358
Se	78	437.442865	223555.721	ug/L	6.187

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		98.485
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.246
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.631
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.168
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123529
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/14/2013

Dear Mr. Marcotte:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

8-30-13
Date

386
of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1.4 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123529.01	GW-OP-5-0813	8/14/13	8/12/13	aqueous		Adheres to Sample Acceptance Policy
123529.02	GW-AE-1A-0813	8/14/13	8/12/13	aqueous		Adheres to Sample Acceptance Policy
123529.03	GW-AE-1B-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.04	GW-BP-4-49BGS-0813	8/14/13	8/12/13	aqueous		Adheres to Sample Acceptance Policy
123529.05	GW-FPC-9A-0813	8/14/13	8/12/13	aqueous		Adheres to Sample Acceptance Policy
123529.06	GW-MW-5D-154BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.07	GW-MW-5D-149BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.08	GW-MW-5D-144BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.09	GW-MW-5S-73BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.1	GW-MW-5S-68BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.11	GW-MW-5S-63BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.12	GW-MW-5S-58BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.13	GW-MW-5S-53BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.14	GW-FPC-8B-53BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.15	GW-FPC-8B-48BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.16	GW-FPC-8B-43BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.17	GW-GZ-105-48BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.18	GW-GZ-105-43BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.19	GW-GZ-105-37BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.2	GW-MW-8-59BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.21	GW-MW-8-54BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.22	GW-MW-8-54BGS-DUP-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.23	GW-MW-8-49BGS-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.24	GW-MW-8-FB-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

SAMPLE CONDITIONS PAGE

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1.4 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123529.25	GW-MW-8-EB-0813	8/14/13	8/13/13	aqueous		Adheres to Sample Acceptance Policy
123529.26	Trip Blank	8/14/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123529.27	GW-MW-11-37BGS 0813	8/14/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy
123529.28	GW-MW-11-42BGS 0813	8/14/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy
123529.29	GW-MW-11-47BGS 0813	8/14/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT

EAI ID#: **123529**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/14/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

No field QC was designated for this sample delivery group.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

1,4 DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

The low level standard (STD 0.25) analyzed on August 18, 2013 was outside the 12 hour tune window.

METALS

All QC samples meet acceptance criteria

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-BP-4-49BGS-0813	GW-MW-5D -154BGS -0813	GW-MW-5D -149BGS -0813	GW-MW-5D -144BGS -0813	GW-MW-5S -73BGS -0813	GW-MW-5S -68BGS -0813	GW-MW-5S -63BGS -0813
Lab Sample ID:	123529.04	123529.06	123529.07	123529.08	123529.09	123529.1	123529.11
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/12/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/16/13	8/20/13	8/20/13	8/20/13	8/20/13	8/17/13	8/19/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	20	20	20	10	1	10
1,4-Dioxane	**9.6**	**140**	**120**	**190**	**50**	**46**	**60**
4-Bromofluorobenzene (surr)	**110 %R**	**99 %R**	**99 %R**	**100 %R**	**102 %R**	**103 %R**	**110 %R**
Toluene-d8 (surr)	**100 %R**	**98 %R**	**94 %R**	**97 %R**	**94 %R**	**94 %R**	**96 %R**

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-5S-58BGS-0813	GW-MW-5S-53BGS-0813	GW-FPC-8B-53BGS-0813	GW-FPC-8B-48BGS-0813	GW-FPC-8B-43BGS-0813	GW-GZ-105-48BGS-0813	GW-GZ-105-43BGS-0813
Lab Sample ID:	123529.12	123529.13	123529.14	123529.15	123529.16	123529.17	123529.18
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/19/13	8/19/13	8/19/13	8/17/13	8/17/13	8/17/13	8/18/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	10	10	1	1	1	1	1
1,4-Dioxane	**55**	**71**	**0.93**	**0.79**	**0.70**	1.4	**0.60**
4-Bromofluorobenzene (surr)	**109 %R**	**111 %R**	**106 %R**	**101 %R**	**101 %R**	**102 %R**	**100 %R**
Toluene-d8 (surr)	**96 %R**	**96 %R**	**94 %R**	**98 %R**	**94 %R**	**100 %R**	**94 %R**

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-GZ-105-37BGS-0813	GW-MW-8-59BGS-0813	GW-MW-8-54BGS-0813	GW-MW-8-54BGS-DUP-0813	GW-MW-8-49BGS-0813	GW-MW-8-FB-0813	GW-MW-8-EB-0813
Lab Sample ID:	123529.19	123529.2	123529.21	123529.22	123529.23	123529.24	123529.25
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13	8/13/13
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13	8/14/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/18/13	8/19/13	8/20/13	8/20/13	8/20/13	8/19/13	8/18/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	100	100	100	100	1	1
1,4-Dioxane	**5.3**	**250**	**240**	**250**	**240**	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	**98 %R**	**111 %R**	**111 %R**	**113 %R**	**111 %R**	**109 %R**	**102 %R**
Toluene-d8 (surr)	**92 %R**	**97 %R**	**100 %R**	**98 %R**	**101 %R**	**102 %R**	**93 %R**

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank	GW-MW-11 -37BGS 0813	GW-MW-11 -42BGS 0813	GW-MW-11 -47BGS 0813
Lab Sample ID:	123529.26	123529.27	123529.28	123529.29
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/29/13	8/14/13	8/14/13	8/14/13
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13
Units:	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/19/13	8/18/13	8/19/13	8/19/13
Analyst:	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.25	**34**	**27**	**27**
4-Bromofluorobenzene (surr)	**106 %R**	**101 %R**	**103 %R**	**103 %R**
Toluene-d8 (surr)	**95 %R**	**98 %R**	**98 %R**	**94 %R**

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.7 (94 %R)	5.3 (106 %R) (12 RPD)	8/16/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	111 %R	107 %R	109 %R	8/16/2013	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	99 %R	95 %R	100 %R	8/16/2013	% Rec	70 - 130	50	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below .

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.8 (95 %R)	4.4 (89 %R) (7 RPD)	ug/l	8/17/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	102 %R	101 %R	102 %R	% Rec	8/17/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	98 %R	98 %R	98 %R	% Rec	8/17/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.4 (89 %R)	4.4 (89 %R) (0 RPD)	ug/l	8/18/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	99 %R	98 %R	98 %R	% Rec	8/18/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	92 %R	97 %R	97 %R	% Rec	8/18/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.8 (96 %R)	4.2 (85 %R) (12 RPD)	ug/l	8/19/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	103 %R	103 %R	103 %R	% Rec	8/19/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	93 %R	94 %R	98 %R	% Rec	8/19/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.8 (96 %R)	4.9 (99 %R) (3 RPD)	ug/l	8/19/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	105 %R	104 %R	105 %R	% Rec	8/19/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	100 %R	100 %R	99 %R	% Rec	8/19/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.6 (92 %R)	4.2 (83 %R) (10 RPD)	ug/l	8/20/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	96 %R	97 %R	98 %R	% Rec	8/20/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	97 %R	98 %R	99 %R	% Rec	8/20/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-OP-5-0813	GW-AE-1A -0813	GW-AE-1B -0813	GW-BP-4 -49BGS-0813					
Lab Sample ID:	123529.01	123529.02	123529.03	123529.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/12/13	8/12/13	8/13/13	8/12/13					
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Aluminum	< 0.05	**4.7**	**0.17**	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	**0.030**	**0.018**	**0.008**	**0.032**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.019**	**0.048**	**0.040**	**0.042**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**12**	**25**	**26**	**40**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	**0.008**	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	< 0.001	**0.016**	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	**0.012**	**0.004**	< 0.001	**0.004**	AqTot	mg/L	8/21/13	200.8	DS
Iron	**18**	**8.2**	**2.2**	**35**	AqTot	mg/L	8/21/13	200.8	DS
Lead	< 0.001	**0.004**	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**2.8**	**11**	**12**	**15**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**3.1**	**0.47**	**0.49**	**0.96**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.017**	**0.013**	< 0.001	**0.011**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**2.0**	**4.5**	**4.9**	**14**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	**0.001**	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**8**	**14**	**20**	**55**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	**0.010**	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	< 0.005	**0.034**	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: GW-FPC-9A-0813

Lab Sample ID:	123529.05
Matrix:	aqueous
Date Sampled:	8/12/13
Date Received:	8/14/13

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Aluminum	**0.22**	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	**0.045**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.10**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**56**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Iron	**7.5**	AqTot	mg/L	8/21/13	200.8	DS
Lead	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**24**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**0.24**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.004**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**8.7**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	**0.003**	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**83**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	**0.021**	AqTot	mg/L	8/21/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-5D -154BGS-0813	GW-MW-5D -149BGS -0813	GW-MW-5D -144BGS -0813	GW-MW-5S -73BGS -0813					
Lab Sample ID:	123529.06	123529.07	123529.08	123529.09					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13					
Arsenic	**0.007**	**0.009**	**0.011**	**0.015**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.64**	**0.65**	**0.64**	**2.5**	AqTot	mg/L	8/22/13	200.8	DS

Sample ID:	GW-MW-5S -68BGS-0813	GW-MW-5S -63BGS-0813	GW-MW-5S -58BGS -0813	GW-MW-5S -53BGS -0813					
Lab Sample ID:	123529.1	123529.11	123529.12	123529.13					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13					
Arsenic	**0.023**	**0.028**	**0.030**	**0.030**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**2.1**	**2.5**	**2.8**	**3.0**	AqTot	mg/L	8/22/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-FPC-8B -53BGS-0813	GW-FPC-8B -48BGS-0813	GW-FPC-8B -43BGS -0813	GW-GZ-105 -48BGS -0813					
Lab Sample ID:	123529.14	123529.15	123529.16	123529.17					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13					
Arsenic	**0.007**	**0.007**	**0.008**	< 0.001	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.035**	**0.039**	**0.034**	**0.023**	AqTot	mg/L	8/22/13	200.8	DS

Sample ID:	GW-GZ-105 -43BGS-0813	GW-GZ-105 -37BGS-0813	GW-MW-8 -59BGS -0813	GW-MW-8 -54BGS -0813					
Lab Sample ID:	123529.18	123529.19	123529.2	123529.21					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13					
Arsenic	< 0.001	**0.001**	**0.011**	**0.013**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.027**	**0.045**	**1.2**	**1.3**	AqTot	mg/L	8/22/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-8-54BGS-DUP-0813	GW-MW-8-49BGS-0813	GW-MW-8-FB-0813	GW-MW-8-EB-0813					
Lab Sample ID:	123529.22	123529.23	123529.24	123529.25					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/13/13	8/13/13	8/13/13	8/13/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13	8/14/13					
Arsenic	**0.012**	**0.008**	< 0.001	< 0.001	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**1.2**	**0.035**	< 0.005	< 0.005	AqTot	mg/L	8/22/13	200.8	DS

Sample ID:	GW-MW-11-37BGS 0813	GW-MW-11-42BGS 0813	GW-MW-11-47BGS 0813					
Lab Sample ID:	123529.27	123529.28	123529.29					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	8/14/13	8/14/13	8/14/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/14/13	8/14/13	8/14/13					
Arsenic	**0.014**	**0.013**	**0.013**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.37**	**0.39**	**0.38**	AqTot	mg/L	8/22/13	200.8	DS

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	10 (92 %R)		mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.1 (111 %R)		mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	0.98 (98 %R)		mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	0.97 (97 %R)		mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	10 (93 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.91 (91 %R)		mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.87 (87 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.89 (89 %R)		mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	10 (92 %R)		mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	9.6 (87 %R)		mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.90 (90 %R)		mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0010 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.90 (90 %R)		mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	9.9 (90 %R)		mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (110 %R)		mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	10 (87 %R)		mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123528.04	< 0.05	8.9 (81 %R)	8.9 (81 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123528.04	< 0.001	1.2 (118 %R)	1.2 (118 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123528.04	0.20	1.1 (91 %R)	1.1 (90 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123528.04	0.013	0.98 (97 %R)	0.99 (97 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123528.04	< 0.001	0.84 (84 %R)	0.84 (84 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123528.04	28	37 (83 %R)	37 (82 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123528.04	< 0.001	0.95 (95 %R)	0.97 (97 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123528.04	< 0.001	0.79 (79 %R)	0.79 (79 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123528.04	< 0.001	0.75 (75 %R)	0.76 (76 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123528.04	0.004	0.80 (80 %R)	0.80 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123528.04	37	47 (89 %R)	47 (88 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123528.04	< 0.001	1.0 (101 %R)	0.99 (99 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123528.04	5.0	15 (91 %R)	15 (93 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123528.04	0.98	2.0 (105 %R)	2.0 (107 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123528.04	< 0.0001	0.0011 (107 %R)	0.0010 (103 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123528.04	0.006	0.80 (80 %R)	0.80 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123528.04	9.0	20 (100 %R)	20 (99 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123528.04	< 0.001	0.93 (93 %R)	0.91 (91 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123528.04	< 0.001	0.83 (83 %R)	0.84 (84 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123528.04	10	21 (102 %R)	22 (107 %R) (5 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123528.04	< 0.001	1.0 (102 %R)	1.0 (101 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123528.04	< 0.005	0.82 (82 %R)	0.82 (82 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123528.04	< 0.005	0.85 (85 %R)	0.86 (86 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123529**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.001	1.0 (100 %R)		mg/L	8/22/13	85 - 115	20	200.8
Manganese	< 0.005	0.91 (91 %R)		mg/L	8/22/13	85 - 115	20	200.8

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	123529.1	0.023	1.0 (101 %R)	1.0 (101 %R) (0 RPD)	mg/L	8/22/13	70-130	20	200.8
Manganese	123529.1	2.1	3.1 (98 %R)	3.0 (88 %R) (11 RPD)	mg/L	8/22/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 3

CHAIN-OF-CUSTODY RECORD

123529

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 524.2 VTICS; 8260B 624 1,4 DIOXANE; 8021B BTEX HALOS; 8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP ABN A BN PAH; TPH8100 L1 L2; 8015B DRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.; BR CL F SO4 NO2 NO3 NO2NO3; BOD CBOD T. ALK.; TKN NH3 O. PHOS. T. PHOS.; PH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: 1,4 Dioxane SIM; Total As/Mn; TAL Metals	# OF CONTAINERS	NOTES MEOH VIAL #
GW-OP-5-0813	8/12/13 1215	GW	C								X	X	1	
GW-AE-1A-0813	8/12/13 1175											X	1	
GW-AE-1B-0813	8/13/13 0850											X	1	
GW-BP-4-49BGS-0813	8/12/13 1250										X	X	3	
GW-FPC-9A-0813	8/12/13 1345											X	1	
GW-MW-5D-154BGS-0813	8/13/13 1100										OK X	X	3	TOTAL metals
GW-MW-5D-149BGS-0813	8/13/13 1120										OK X	X	3	
GW-MW-5D-144BGS-0813	8/13/13 1140										X	X	3	
GW-MW-55-73BGS-0813	8/13/13 1230										X	X	3	
GW-MW-55-68BGS-0813	8/13/13 1245										X	X	3	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER											X	N	N	
PRESERVATIVE: H-HCL; N-HNO3; S-H2SO4; Na-NaOH; M-MEOH														

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PROJECT MANAGER: Steve Marcotte
COMPANY: Summit Env. Consultants
ADDRESS: 640 Main Street
CITY: Lewiston STATE: ME ZIP: 04240
PHONE: 207-795-6009 EXT.:
FAX:
E-MAIL: smarcotte@summitenv.com
SITE NAME: Coakley Landfill
PROJECT #: 12-3173
STATE: (NH) MA ME VT OTHER:
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:
QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C (SPECIAL OR) PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS: YES OR NO; IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS: NO FAX E-MAIL (PDF) EQUIS

TEMP. 1.4 °C ICE? (YES) NO

SAMPLER(S): Sue Yerma

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	8/14/13	0845	Steve Marcotte
Steve Marcotte	10/14/13	10:28	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	8/14/13	11:35	

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS: TAL metals (23 Totals) see QAPP

SAMPLES FIELD FILTERED? ☐ YES ☒ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

GW-MW-5D **** samples as corrected above (Lines 6 & 7) shall be submitted for Total As/Mn & 1,4-Dioxane SIM

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 2 of 3

Chain-of-Custody Record

F 123529

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX 524.2 MTBE only	VOC: 8260B 624 VTICs 1,4 Dioxane	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (list below)	Metals: Total Metals (list below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO4 NO2 NO3 NO2NO3	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide · Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other: 1,4 Dioxane Sims	Other: Total As/MW	Other: TAL metals	# of Containers	Notes MeOH Vial #
Gw-BKG-SS-63BGS-0813	8/13/13 1255	GW	G																							X	X		3	
GW-MW-SS58BGS-0813	8/13/13 1305																									X	X		3	
Gw-MW-SS-53BGS-0813	8/13/13 1315																									X	X		3	
Gw-FPC-8A-53BGS-0813	8/13/13 1350																									Y	Y		3	
Gw-FPC-8A(B)-48BGS-0813	8/13/13 1405																									Y	Y		3	
Gw-FPC-8A(B)-43BGS-0813	8/13/13 1415																									Y	Y		3	
Gw-G2-105-48BGS-0813	8/13/13 1435																									Y	Y		3	
Gw-G2-105-43BGS-0813	8/13/13 1445																									Y	Y		3	
Gw-G2-105-37BGS-0813	8/13/13 1455																									Y	X		3	
Gw-MW-8 59BGS-0813	8/13/13 1540																									Y	Y		3	
																										Y	N	N		

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Steve Marcotte

Company: Summit Env. Consultants

Address: 640 Main Street

City: Lewiston State: ME Zip: 04240

Phone: 207-795-6009 Ext.:

Fax:

E-Mail: smarcotte@summitenv.com

Site Name: COAKLEY LAND FILL

Project #: 12-3173

State: (NH) MA ME VT Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other: superfund

Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B C (Special) OR Presumptive Certainty

Reporting Options: Prelims: Yes or No; If Yes: Fax or (PDF)

Electronic Options: No Fax E-Mail (PDF) Equis

Temp. 1.4 °C ICE? (Yes) No

Sampler(s): Sue Yerina

Relinquished By:	Date:	Time:	Received By:
[signature]	8/14/13	0845	S Marcotte
[signature]	8/14/13	10:28	[signature]
[signature]	8/14/13	11:35	[signature]

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu TAL metals (23 totals)

Other Metals: See QAPP

Samples Field Filtered? ☐ Yes ☒ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

Samples GW-FPC-8A --- have been Changed to 8B.

TA - 8/23/13

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(White: Original Green: Project Manager)

Page 3 of 3

CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 123529

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 BTEX 524.2 MTBE ONLY; 8260B 624 VTICS 1, 4 DIOXANE; 8021B BTEX HALOS; 8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP ABN A BN PAH; TPH8100 L1 L2; 8015B DRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.; BR CL F SO4 NO2 NO3 NO2,NO3; BOD CBOD T. ALK.; TKN NH3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: 1,4 Dioxane SIM; total AS (INN)	# OF CONTAINERS	NOTES MEOH VIAL #
GW-MW-8-54BGS-0813	8/13/13 1550	GW	G								X X	3	
GW-MW-8-54BGS-DUP-0813	8/13/13 1555										X X	3	
GW-MW-8-91BGS-0813	8/13/13 1605										X X	3	
GW-MW-8-FB-0813	8/13/13 1725										X X	3	
GW-MW-8-EB-0813	8/13/13 1715										X X	3	
TRIP BLANK	~~7/29/13 1150~~ * 7/29/13 11:50										X	2	
GW-MW-11-37 BGS-0813	8/14/13 0824										X X	4	
GW-MW-11-42 BGS-0813	8/14/13 0813										X X	4	
GW-MW-11-47 BGS-0813	8/14/13 0732										X X	4	
											X N		

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO3; S-H2SO4; Na-NaOH; M-MEOH

* EAI PREPPED 8/28/13

PROJECT MANAGER: Steve Marcotte

COMPANY: Summit Env. Consultants

ADDRESS: 640 Main Street

CITY: Lewiston STATE: ME ZIP: 04240

PHONE: 207-784-[illegible]609 EXT.:

FAX:

E-MAIL: SMarcotte@summitenv.com

SITE NAME: Cookley Landfill

PROJECT #: 12-31 73

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: Superfund

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C Special OR PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS: YES OR NO; IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS: NO FAX E-MAIL (PDF) EQUIS

TEMP. 1.4 °C ICE? (YES) NO

SAMPLER(S): Sue Yering

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	8/14/13	0845	S. Marcotte
Steve Marcotte	8/14/13	1028	[signature]
[signature]	8/14/13	11:35	[signature]
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

123529
C Level Package Data

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 5/10/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAIS1001	BKB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IM0510	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BKB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120524.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	02					VOC			
25	25	BKB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120612					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	22					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120711.02				✓	VOC			
39	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/13

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

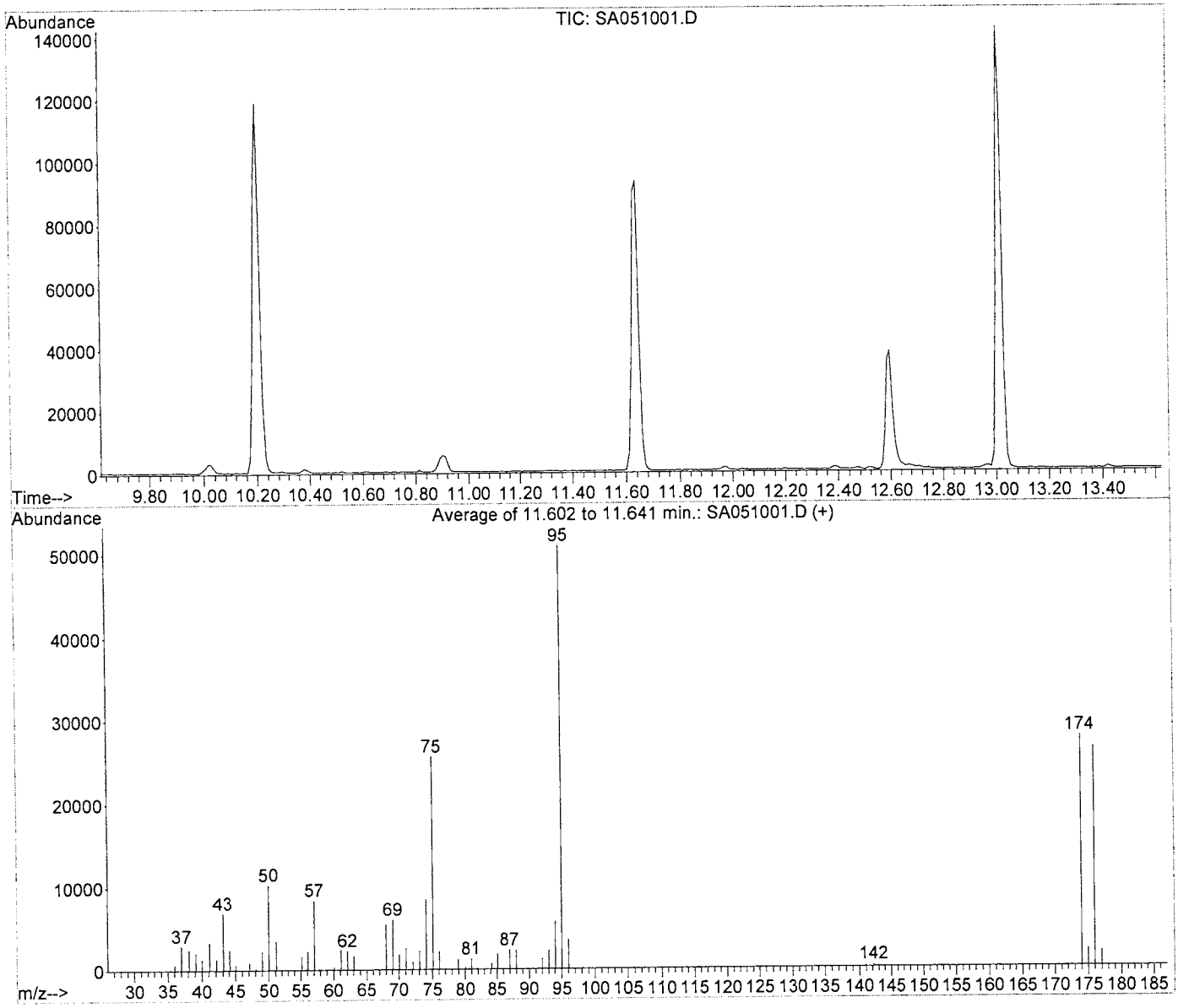
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

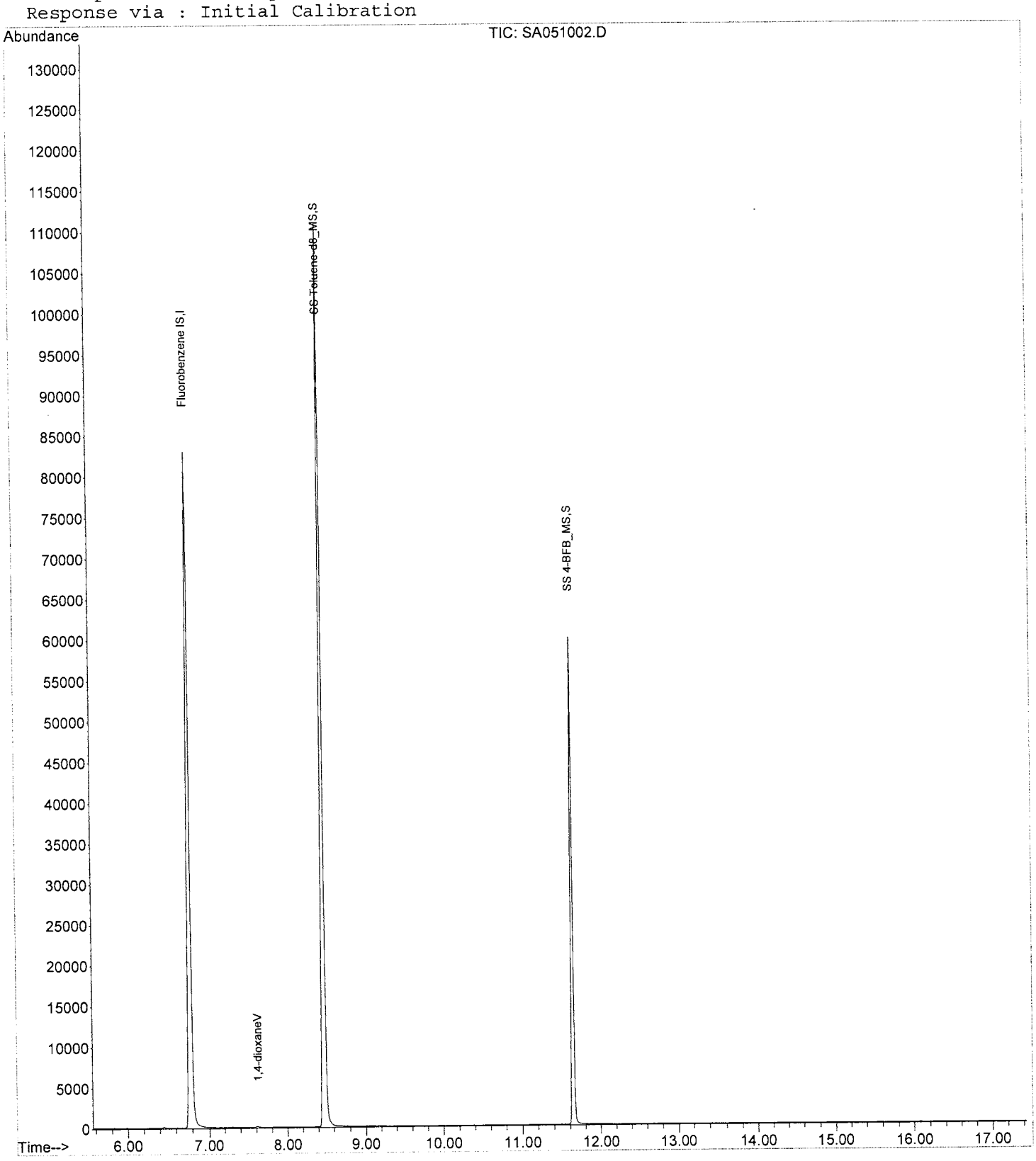
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	160084	9.79	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.91%		
4) SS 4-BFB_MS			11.64	95	56746	10.12	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	101.22%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

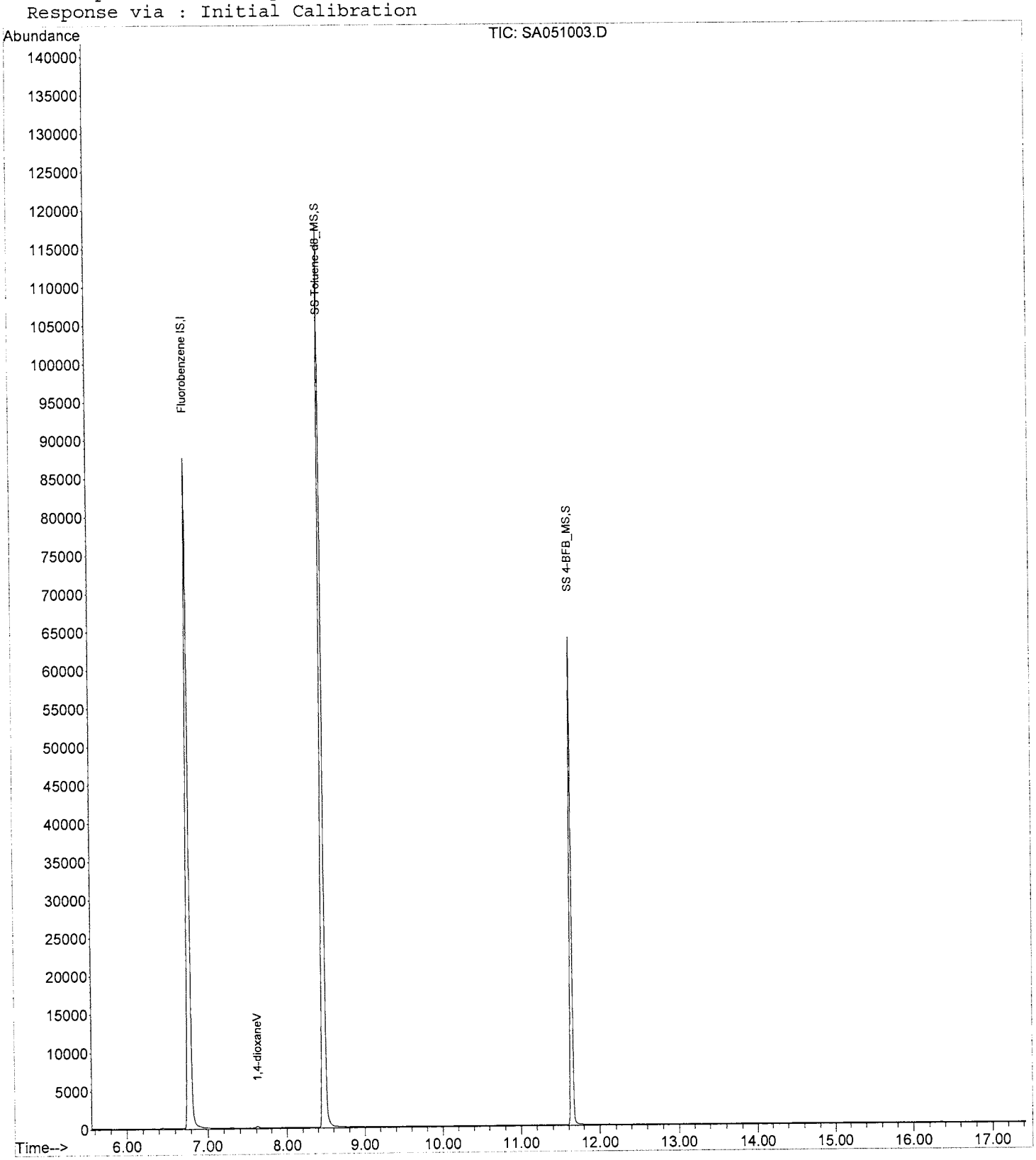
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	170558	9.82	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.19%		
4) SS 4-BFB_MS		11.64	95	59943	10.06	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	100.64%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

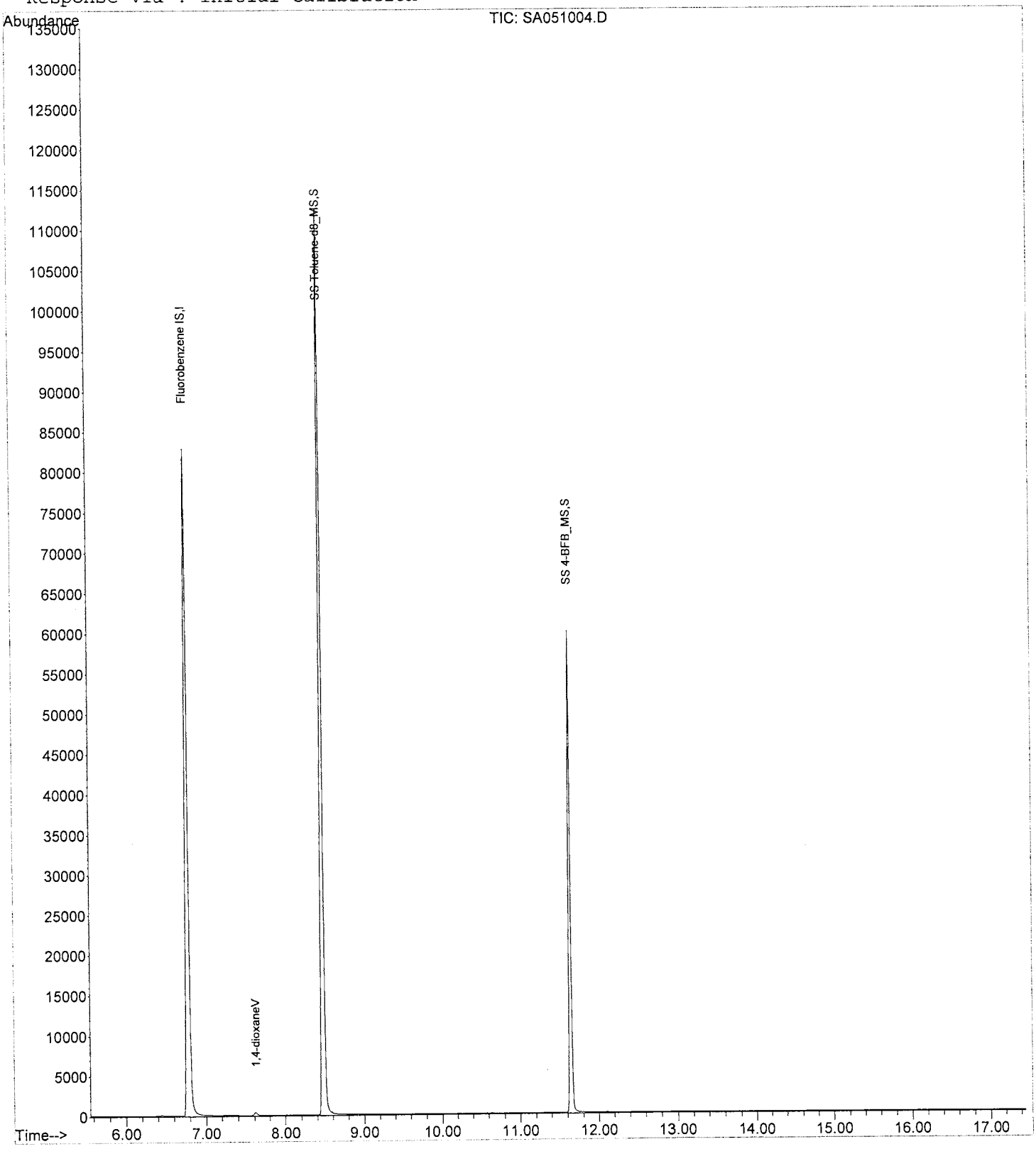
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

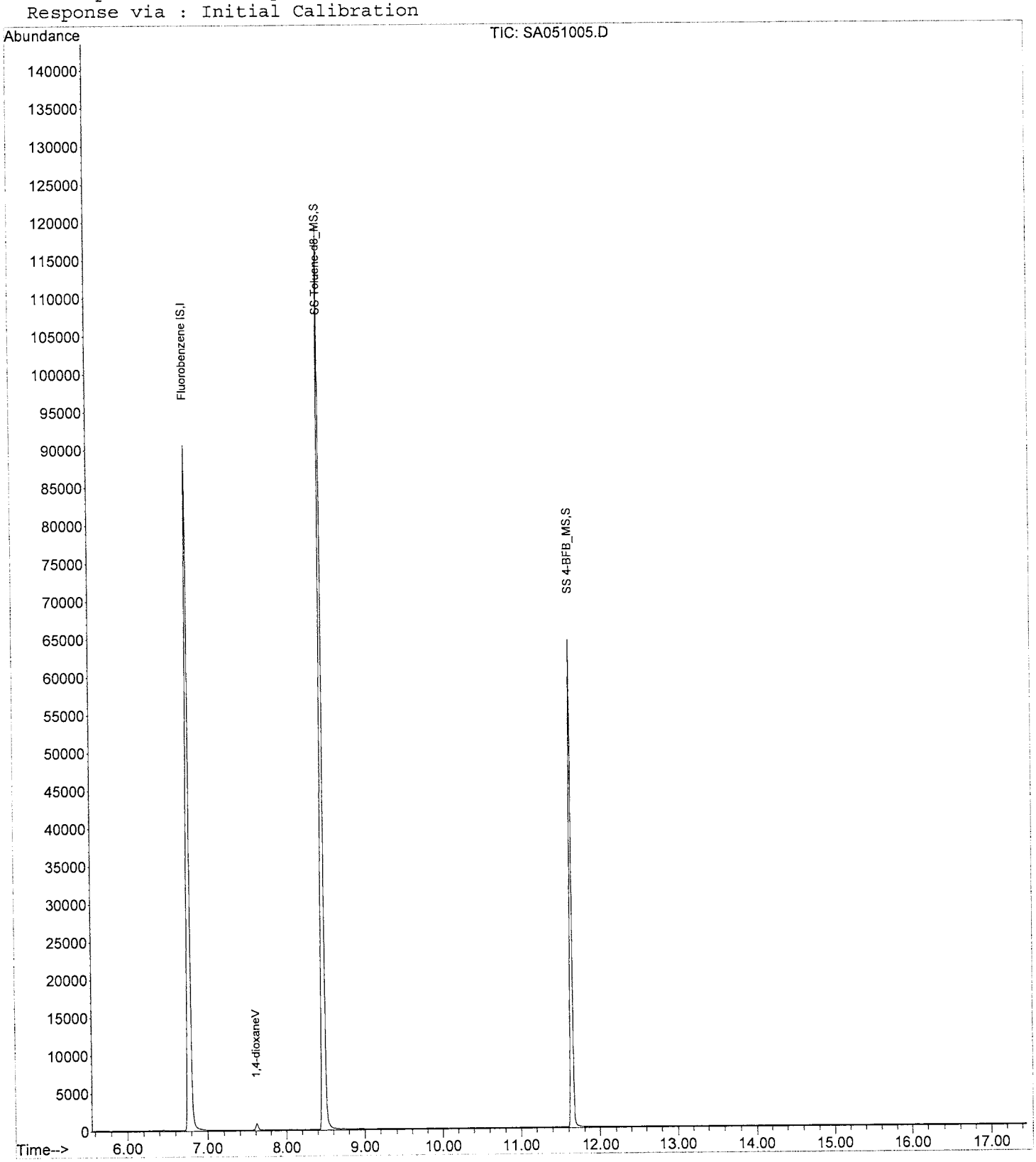
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	170943	9.68	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.75%		
4) SS 4-BFB_MS		11.64	95	59771	9.87	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.66%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

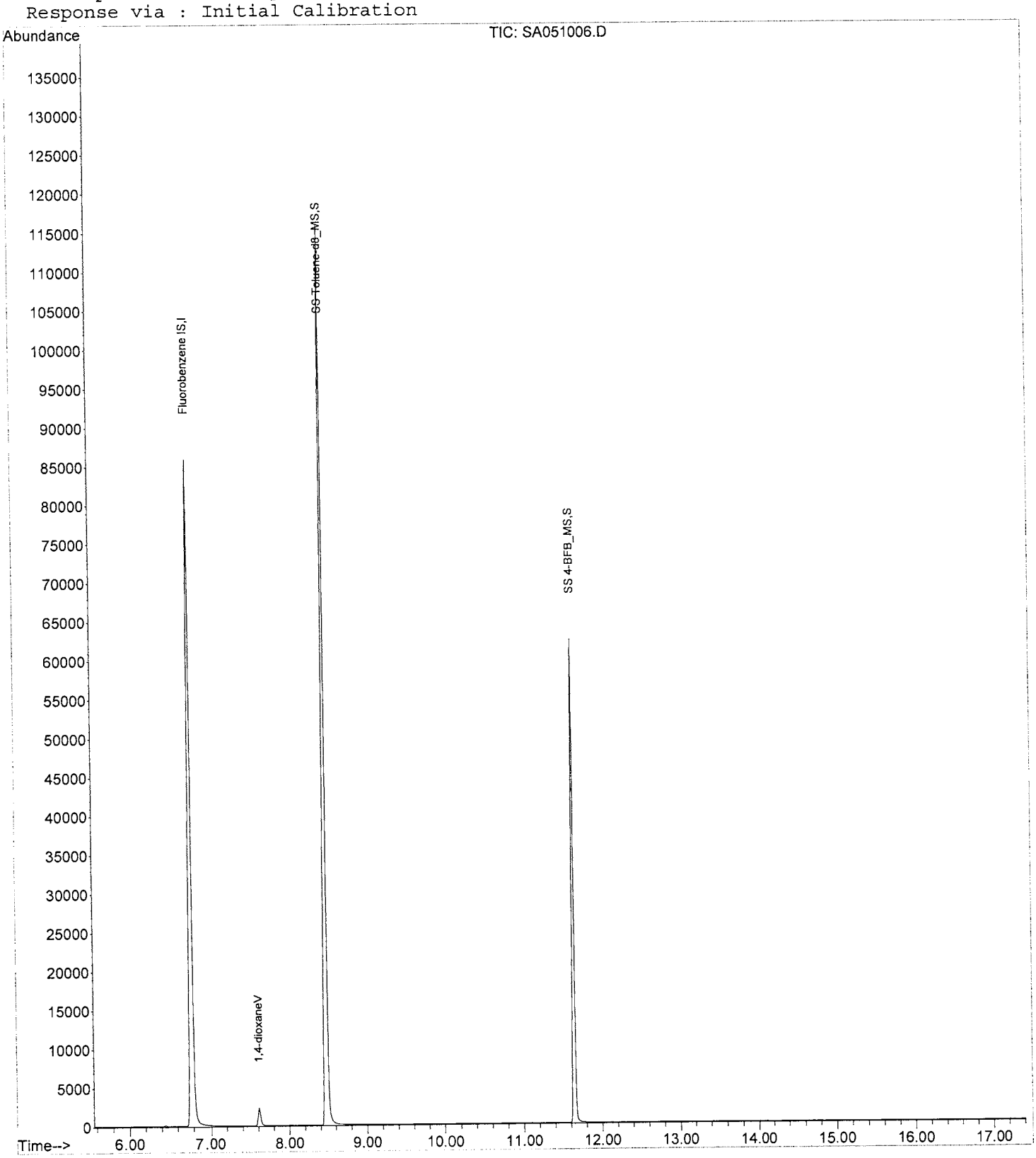
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	167384	9.78	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.84%		
4) SS 4-BFB_MS			11.64	95	58776	10.02	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	100.20%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

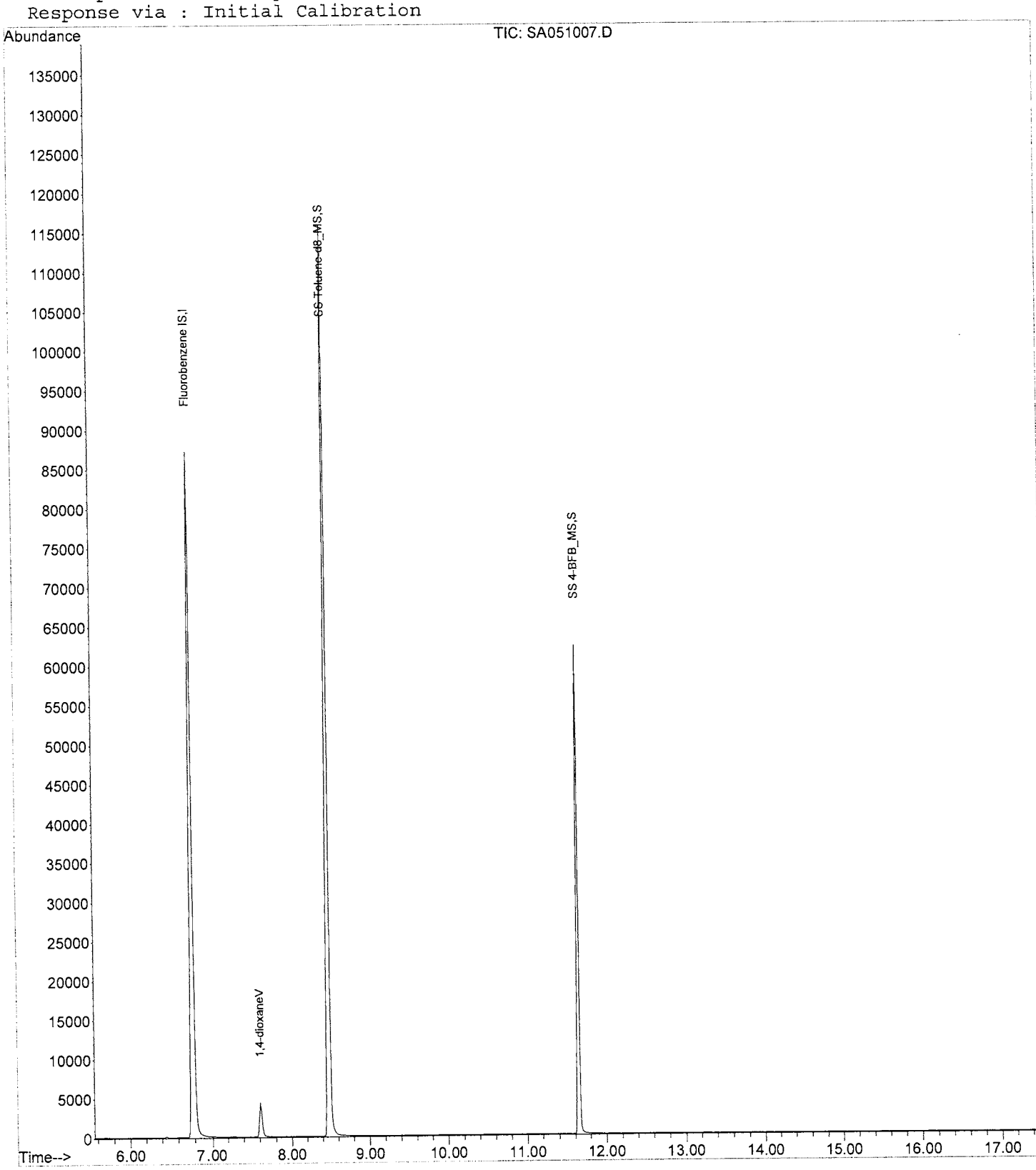
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	159671	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%			
4) SS 4-BFB_MS	11.64	95	58595	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

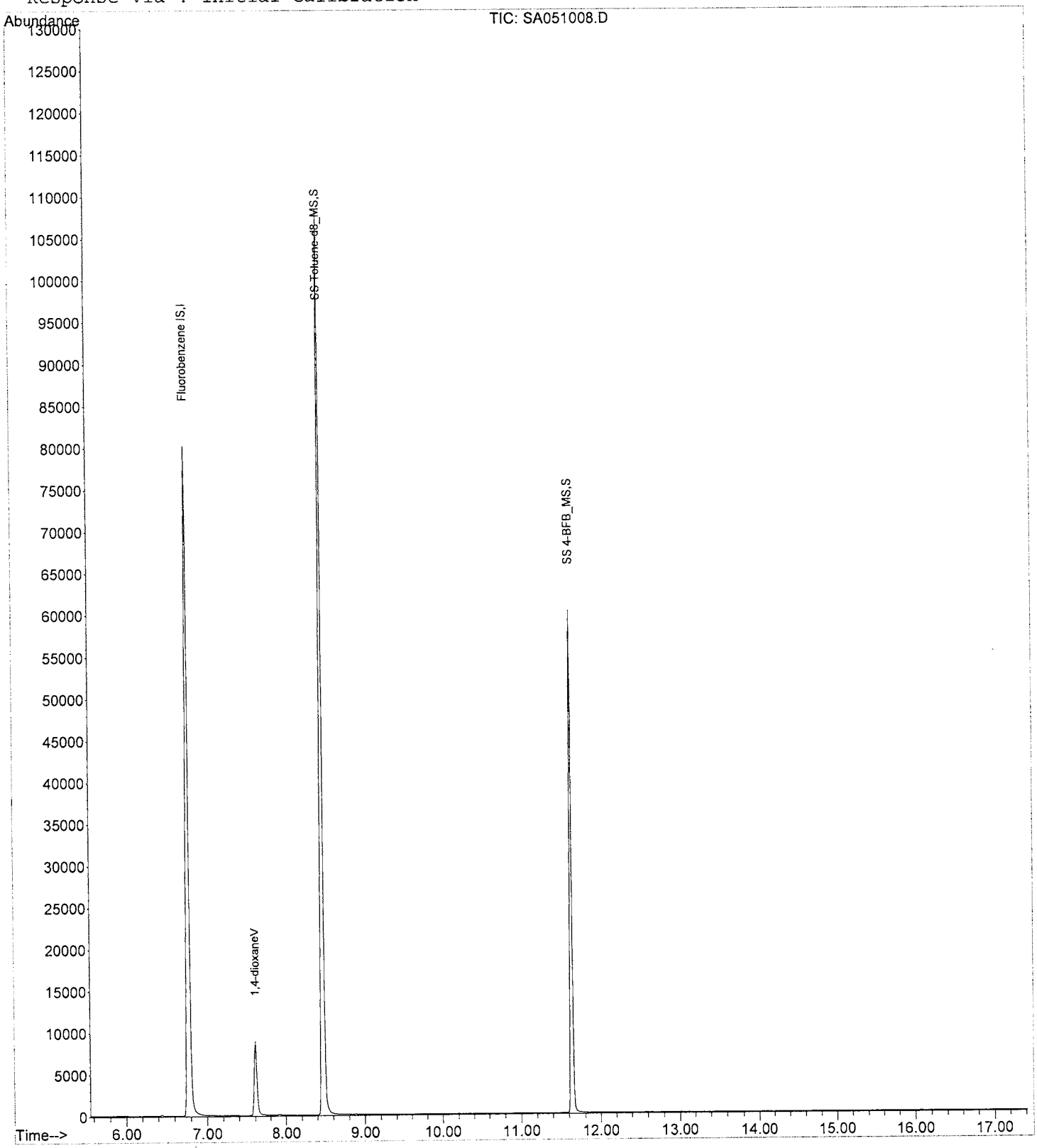
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	149017	9.37	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	93.70%		
4) SS 4-BFB_MS			11.64	95	55675	10.21	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	102.09%		.
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

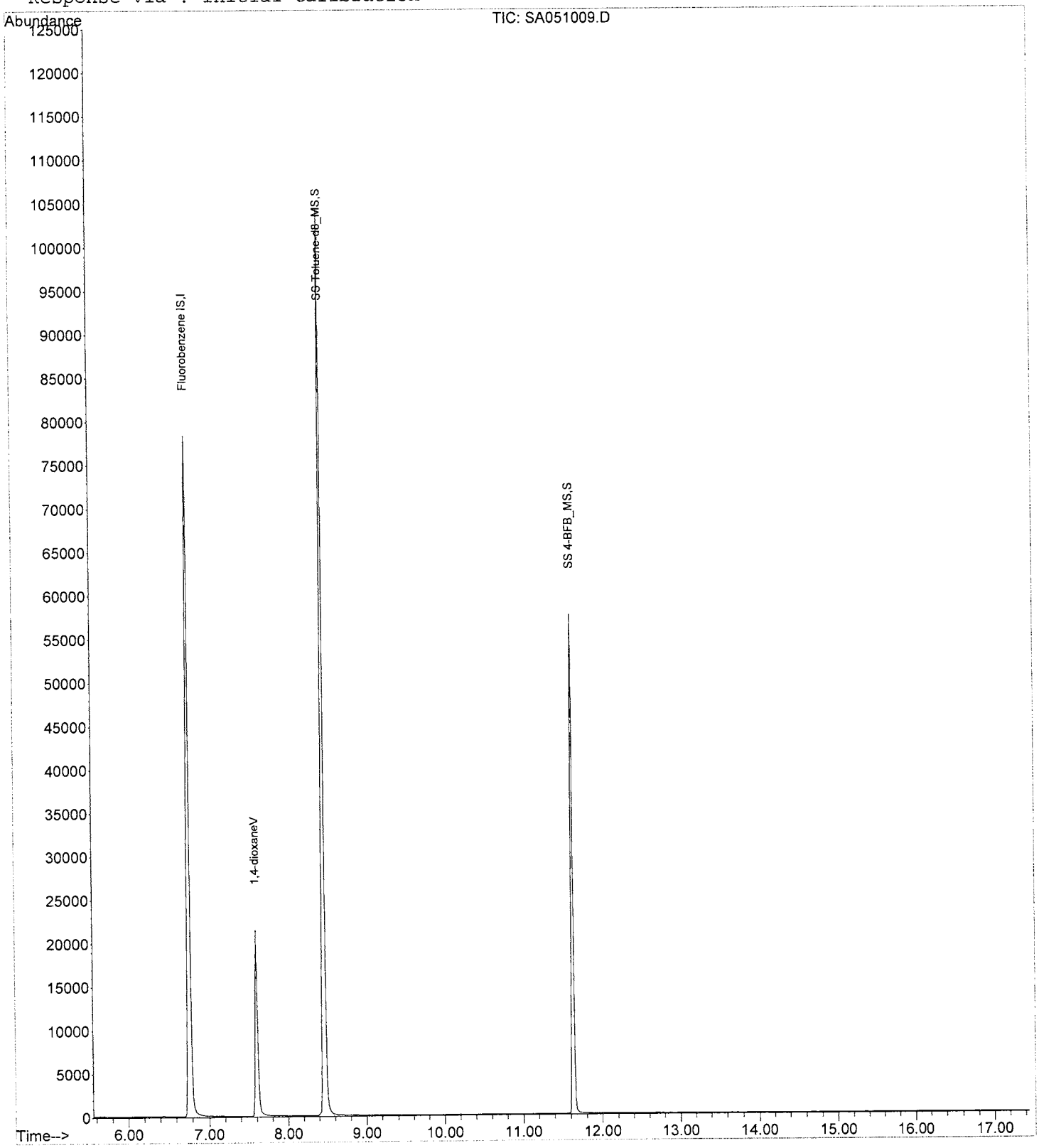
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	148830	9.89	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS	11.63	95	52945	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

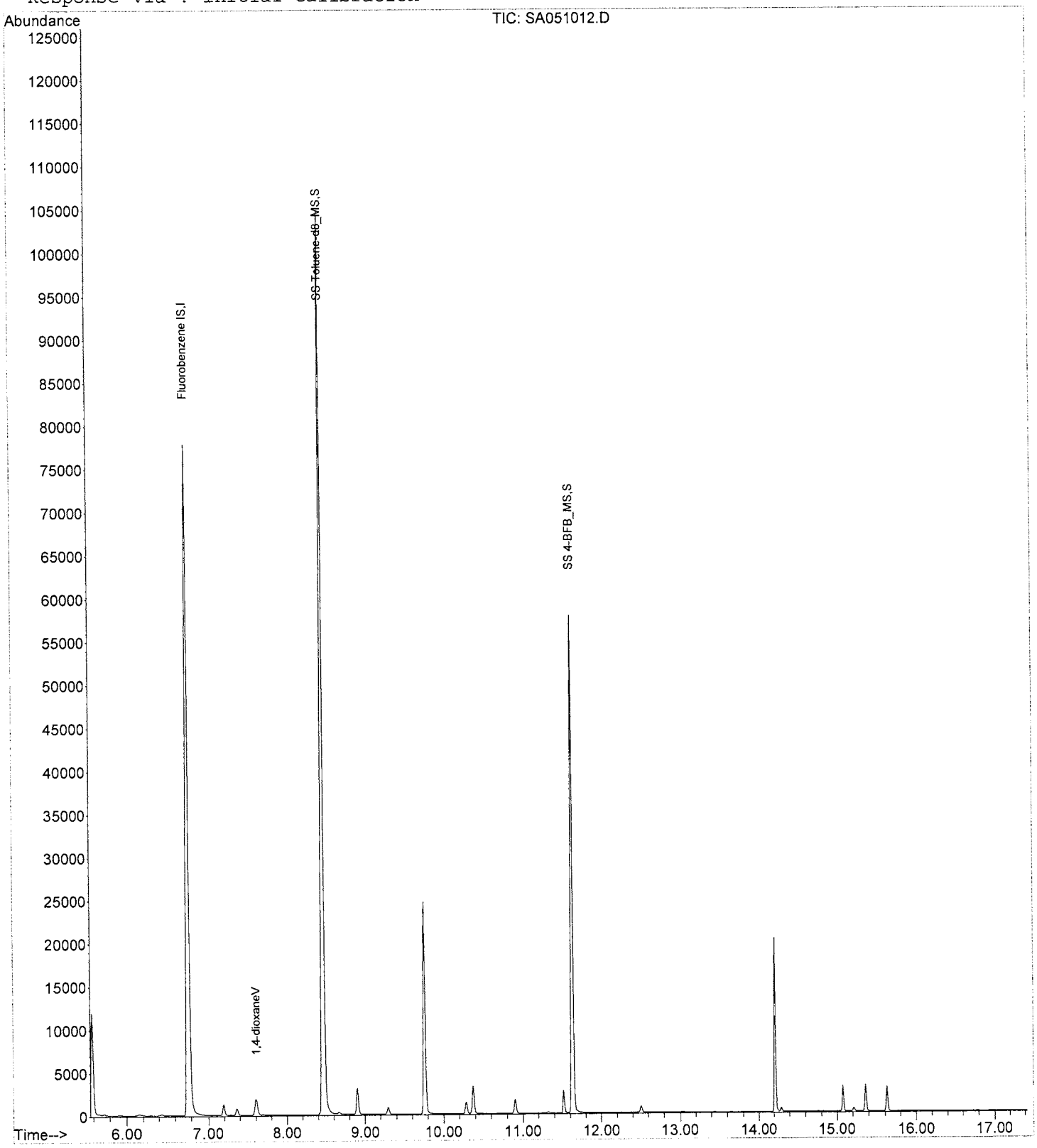
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.14%		
4) SS 4-BFB_MS			11.63	95	52679	10.31	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	103.13%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

professional laboratory & drilling services

8260B SIM 1,4 Dioxane

Sample and QC Data

IS/SS ID= V- 4079

Standard ID= V- 4040

Analyst: VG

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 8/15/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	S1308501	BRB		✓		x1	VOCMSI			
2	2	STD5		✓			VOCSIM	2SIMSD		
3	3	LCS5		✓			VOC			
4	4	LCSD5		✓			VOC			
5	5	Blank		✓			VOC			
6	6	123507.11		✓			VOC			
7	7	12		✓			VOC			
8	8	14		✓			VOC			
9	9	123508.01		✓			VOC			
10	10	02		✓			VOC			
11	11	03		✓			VOC			
12	12	04		✓			VOC			
13	13	123430.01			✓		VOC			
14	14	02			✓		VOC			
15	15	03			✓		VOC			
16	16	STD0.25		✓			VOC			
17	17	BRB		✓			VOCMSI			
18	18	STD5		✓			VOCSIM			
19	19	LCS5		✓			VOC			
20	20	LCSD5		✓			VOC			
21	21	Blank		✓			VOC			
22	22	123524.04		✓			VOC			
23	23	06		✓			VOC			
24	24	07		✓			VOC			
25	25	08		✓			VOC			
26	26	09		✓			VOC			
27	27	123513.02		✓			VOC			
28	28	01		✓			VOC			
29	29	BLK 8/13			✓		VOC			
30	30	LCS 8/13			✓		VOC			
31	31	LCSD 8/13			✓	↓	VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by VG 8/16/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1513\SA081517.D
Tune Time : 15 Aug 2013 9:43 pm

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1513\SA081518.D

			186429
File	Sample	Surrogate Recovery %	Internal Standard Responses
SA081518.D	STD5	100 112	186429
SA081519.D	LCS5	95 107	188892
SA081520.D	LCSD5	100 109	185110
SA081521.D	BLANK	99 111	184572
SA081522.D	123529.04	100 110	183628
SA081523.D	123529.06	98 113	181290
SA081524.D	123529.07	97 113	180528
SA081525.D	123529.08	102 111	194395
SA081526.D	123529.09	96 111	195466
SA081527.D	123513.02	100 110	197491
SA081528.D	123513.01	96 108	199757
SA081529.D	BLK 8/12	100 110	191821
SA081530.D	LCS 8/12	103 112	190938
SA081531.D	LCSD 8/12	98 111	195792

t - fails 12hr time check * - fails criteria

Created: Fri Aug 16 10:59:22 2013 VOAMS2

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081516.D Vial: 16
Acq On : 15 Aug 2013 8:52 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:26:35 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

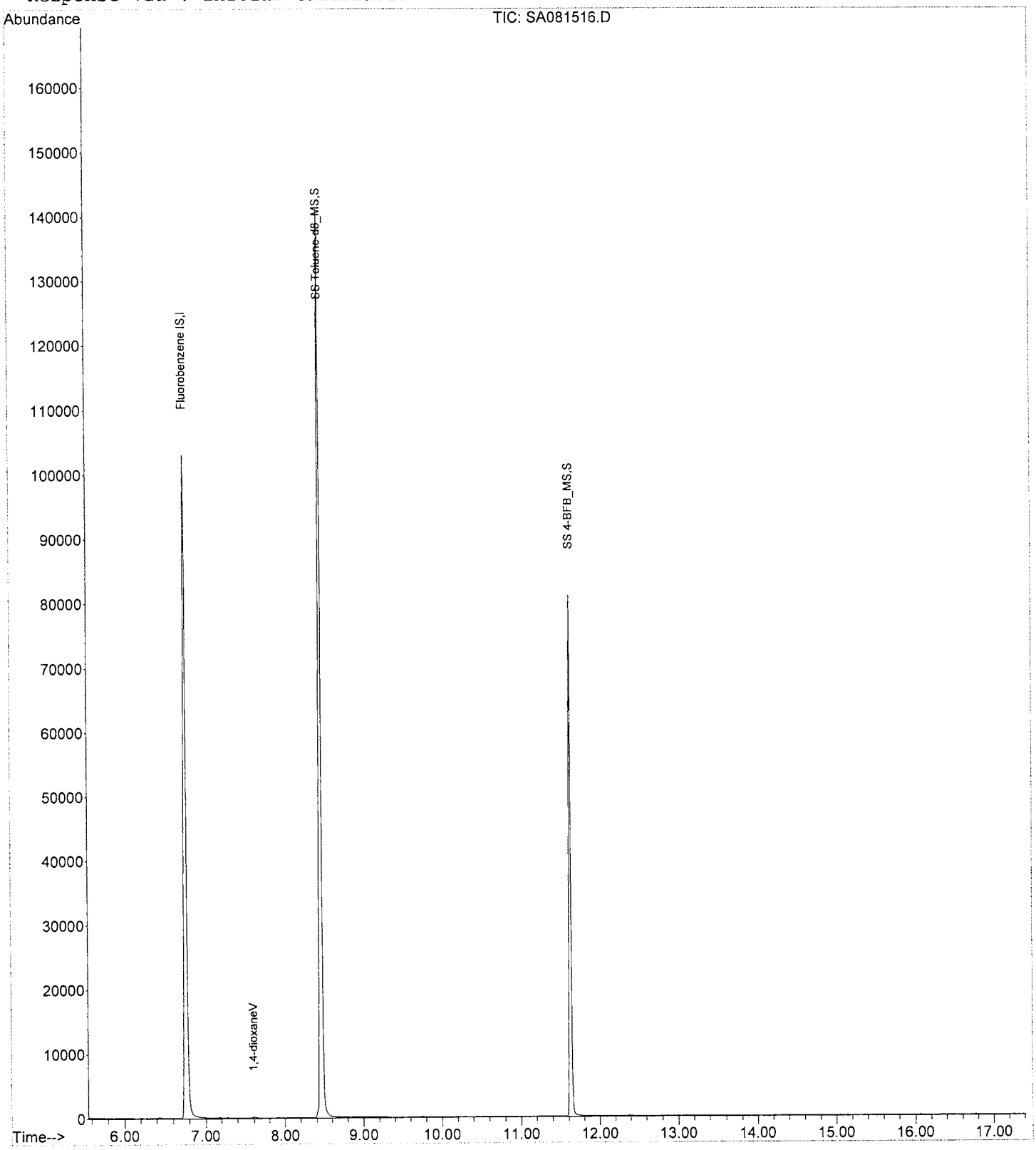
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	185228	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	191350	9.95	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.52%			
4) SS 4-BFB_MS	11.62	95	75363	10.94	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.42%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	240	0.309	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

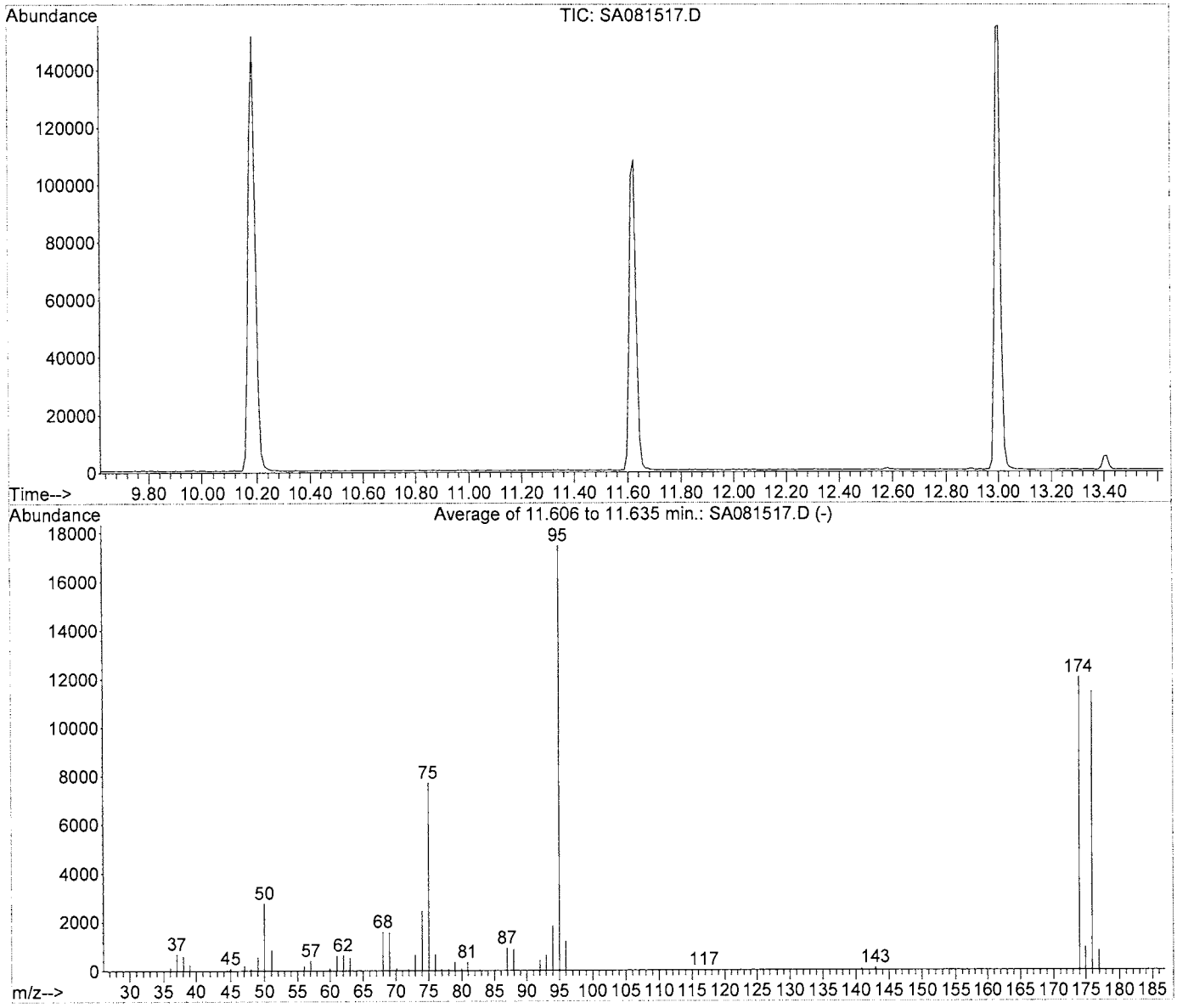
Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081516.D Vial: 16
Acq On : 15 Aug 2013 8:52 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:24 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081517.D Vial: 17
Acq On : 15 Aug 2013 9:43 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.606 to 11.635 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	2765	PASS
75	95	30	60	44.1	7709	PASS
95	95	100	100	100.0	17467	PASS
96	95	5	9	6.8	1195	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	68.9	12041	PASS
175	174	5	9	7.8	941	PASS
176	174	95	101	95.1	11454	PASS
177	176	5	9	6.9	787	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081518.D Vial: 18
Acq On : 15 Aug 2013 10:35 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	117	-0.01
2		1,4-dioxaneV	5.000	4.951	1.0	116	-0.01
3	S	SS Toluene-d8_MS	10.000	9.965	0.4	115	-0.01
4	S	SS 4-BFB_MS	10.000	11.190	-11.9	132	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Wed Aug 21 11:34:44 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081518.D Vial: 18
Acq On : 15 Aug 2013 10:35 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:27:01 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

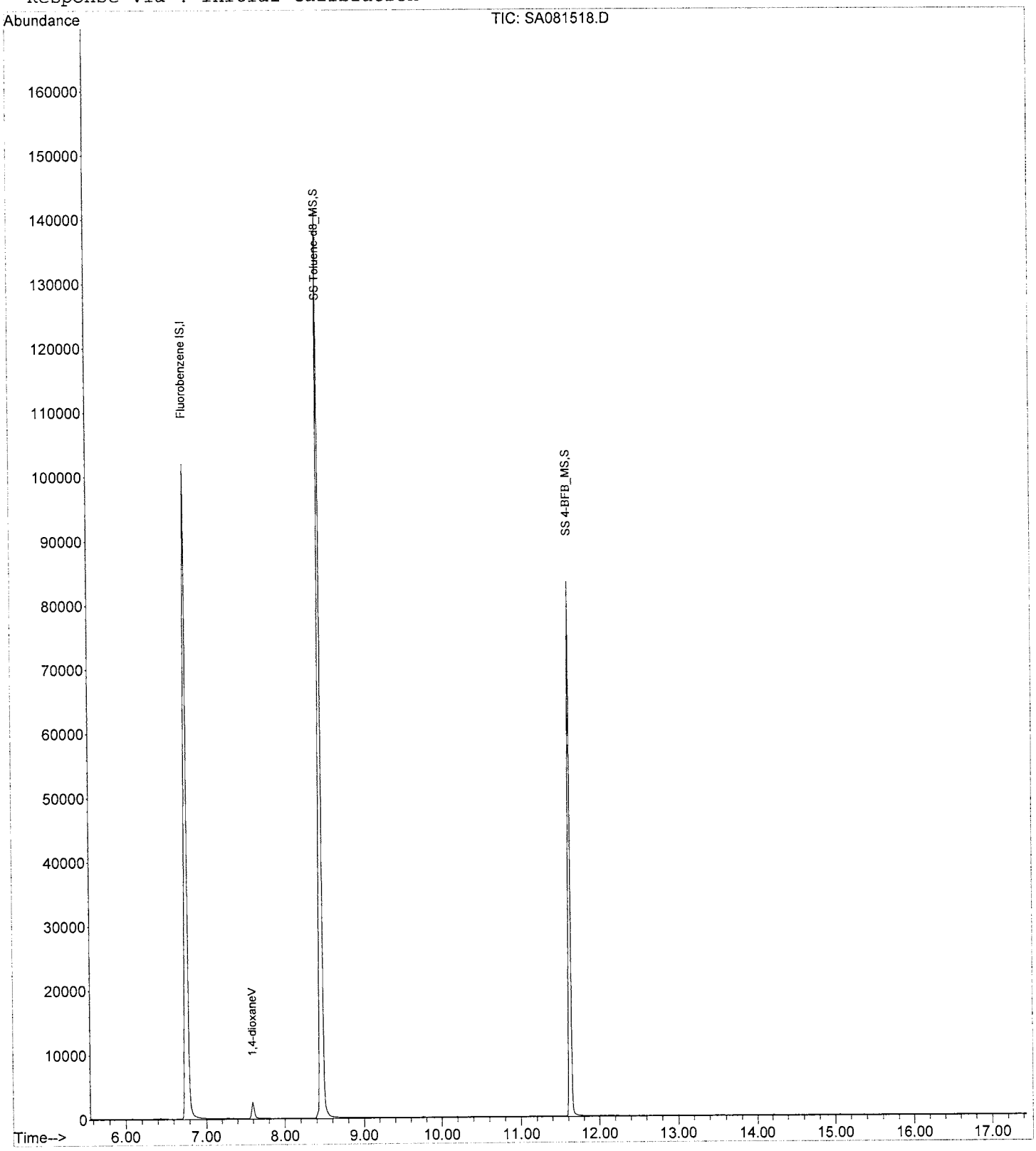
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.76	96	186429	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	192836	9.96	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.65%		
4) SS 4-BFB_MS			11.63	95	77571	11.19	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	111.90%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.59	88	3874	4.951	ug/L	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081518.D Vial: 18
Acq On : 15 Aug 2013 10:35 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:25 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081519.D Vial: 19
Acq On : 15 Aug 2013 11:28 pm Operator: VG
Sample : LCSaA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:27:12 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

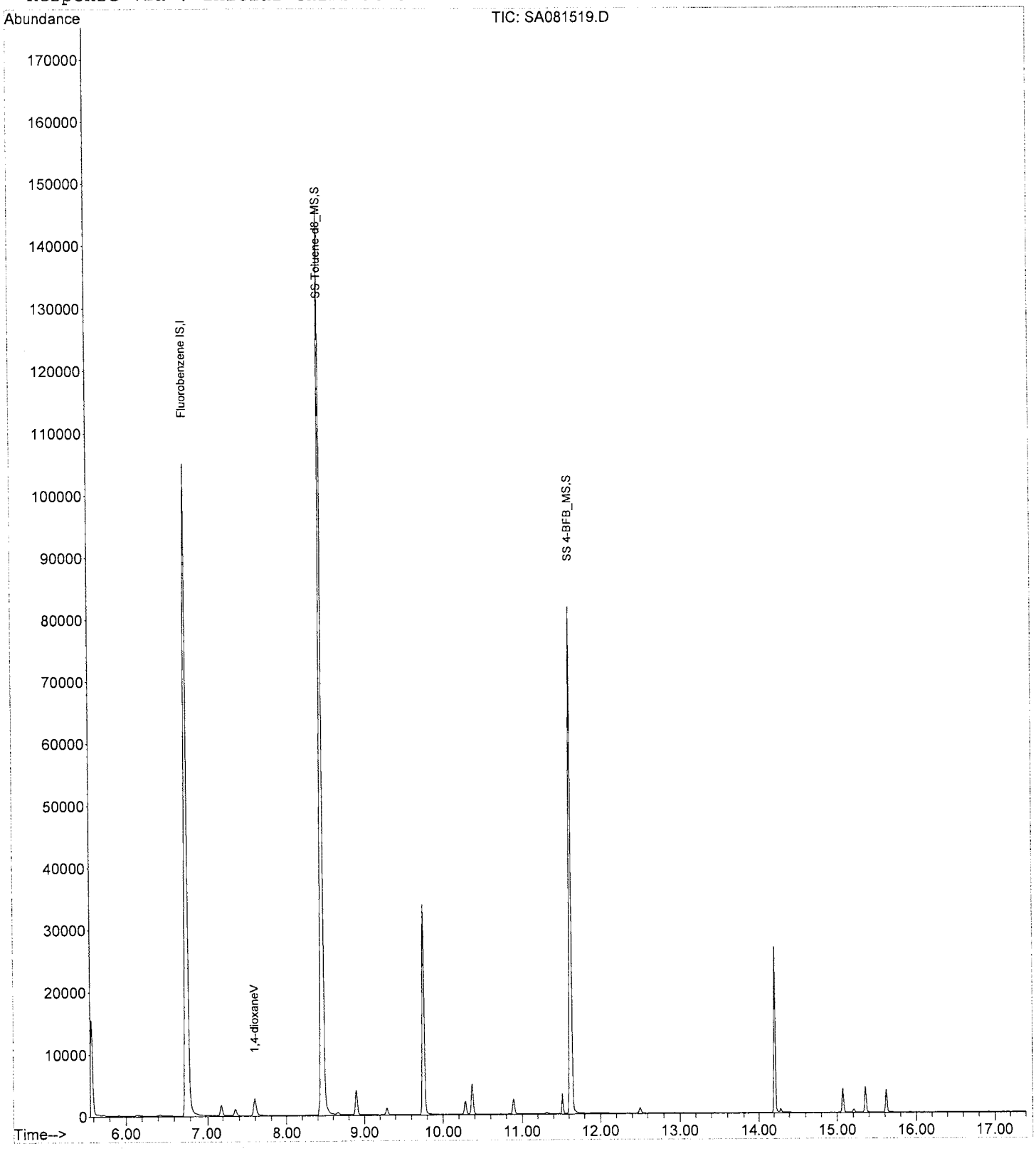
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	188892	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	187152	9.55	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.45%			
4) SS 4-BFB_MS	11.62	95	75487	10.75	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.48%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3720	4.693	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081519.D Vial: 19
Acq On : 15 Aug 2013 11:28 pm Operator: VG
Sample : LCSaA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:25 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081520.D Vial: 20
Acq On : 16 Aug 2013 12:20 am Operator: VG
Sample : LCSDA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:27:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

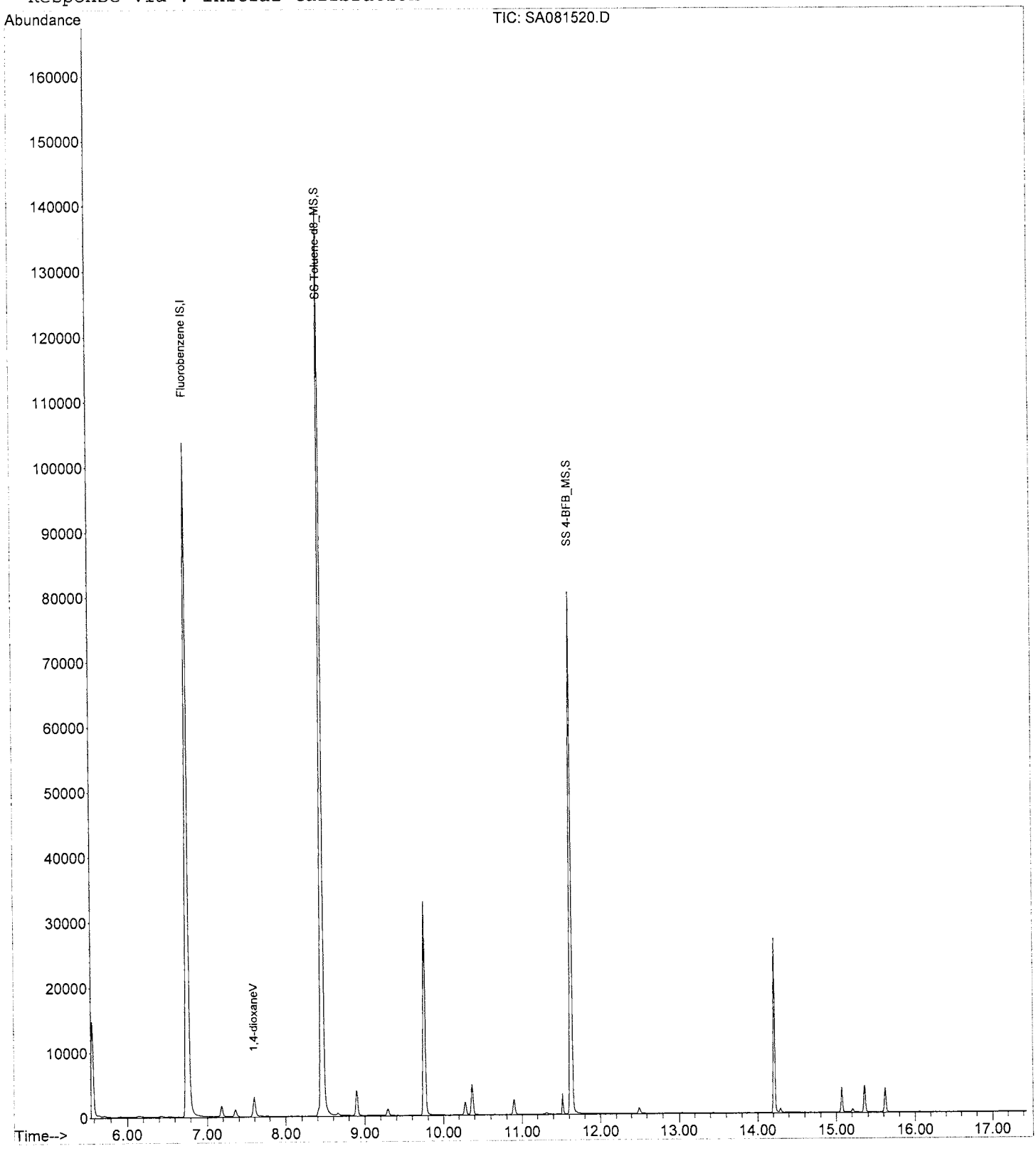
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	185110	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	191755	9.98	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.80%		
4) SS 4-BFB_MS		11.62	95	74939	10.89	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	108.88%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	4114	5.296	ug/L	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081520.D Vial: 20
Acq On : 16 Aug 2013 12:20 am Operator: VG
Sample : LCSDA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:25 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081521.D Vial: 21
Acq On : 16 Aug 2013 1:12 am Operator: VG
Sample : BlnkA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:27:34 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

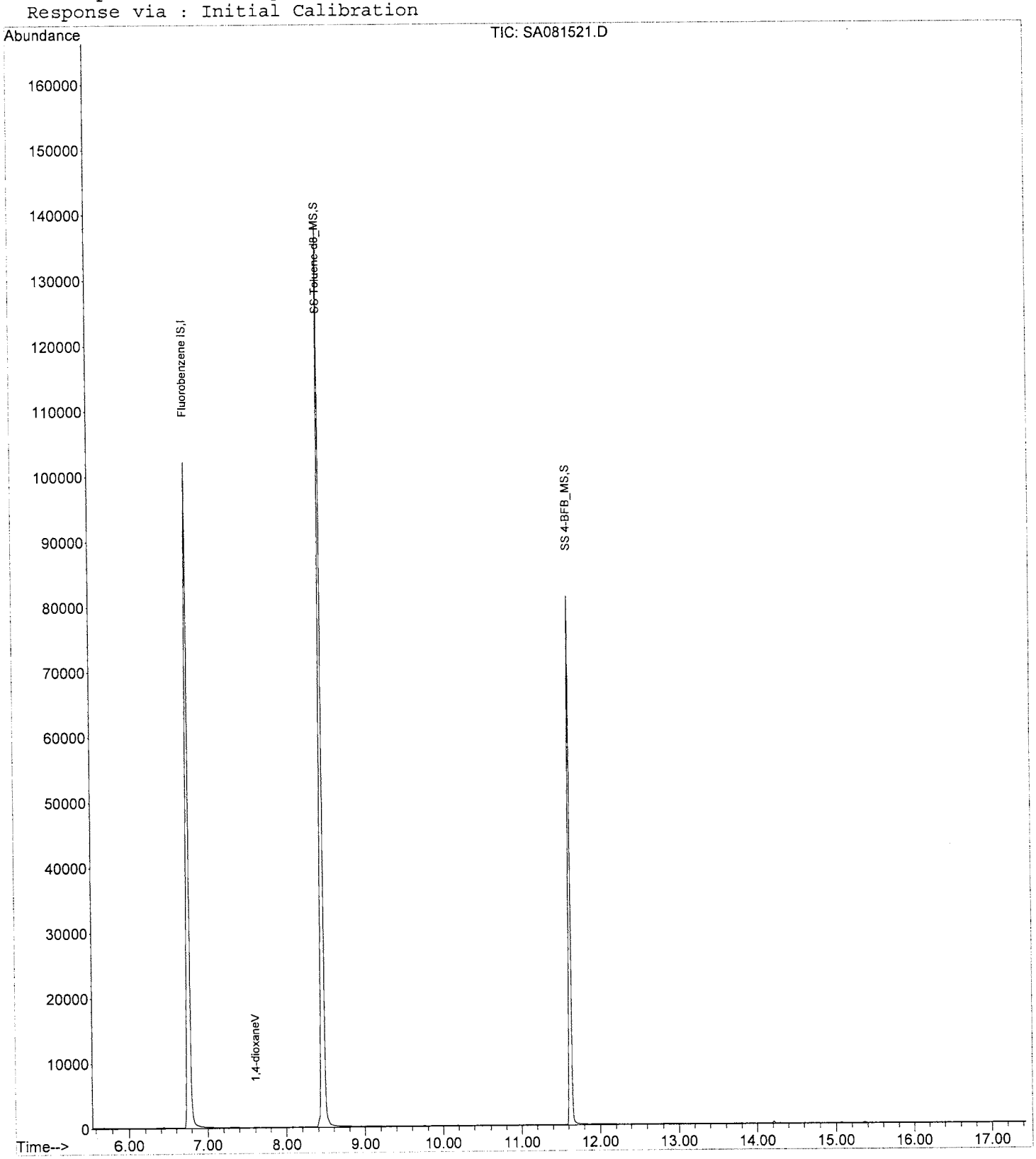
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	184572	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	188814	9.86	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.55%			
4) SS 4-BFB_MS	11.63	95	76162	11.10	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.97%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	94	0.121	ug/L	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081521.D Vial: 21
Acq On : 16 Aug 2013 1:12 am Operator: VG
Sample : BlnkA081513V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:25 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081522.D Vial: 22
Acq On : 16 Aug 2013 2:04 am Operator: VG
Sample : 123529.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:38:21 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	183628	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	190711	10.01	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	100.05%		
4) SS 4-BFB_MS		11.63	95	74876	10.97	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	109.66%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	7430	9.641	ug/L	89

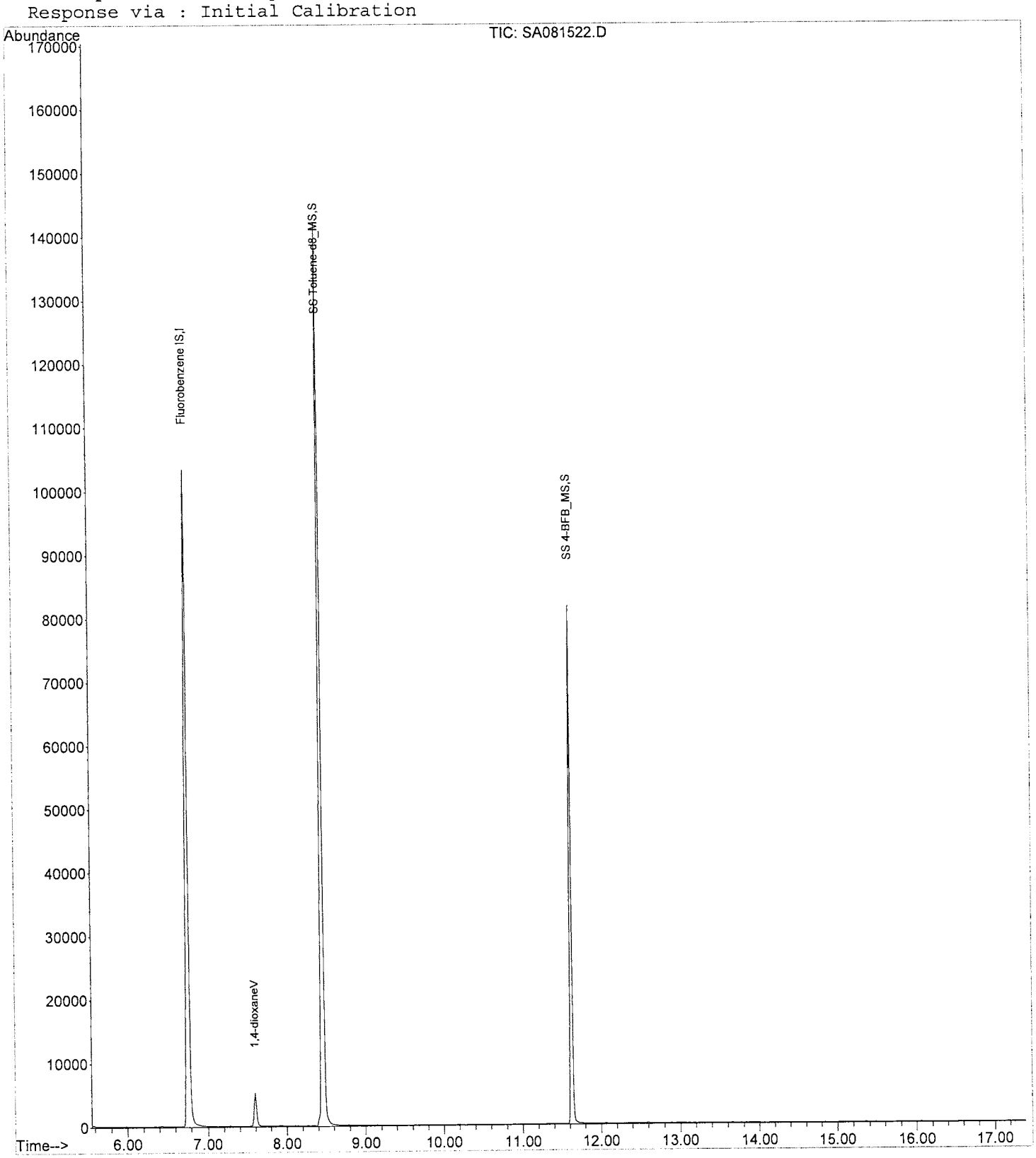
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081522.D 2SIM0510.M Fri Aug 16 08:38:21 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081522.D Vial: 22
Acq On : 16 Aug 2013 2:04 am Operator: VG
Sample : 123529.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081523.D Vial: 23
Acq On : 16 Aug 2013 2:57 am Operator: VG
Sample : 123529.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:38:24 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	181290	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	183637	9.76	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.59%			
4) SS 4-BFB_MS	11.62	95	75917	11.26	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.62%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	94415	124.096	ug/L	95

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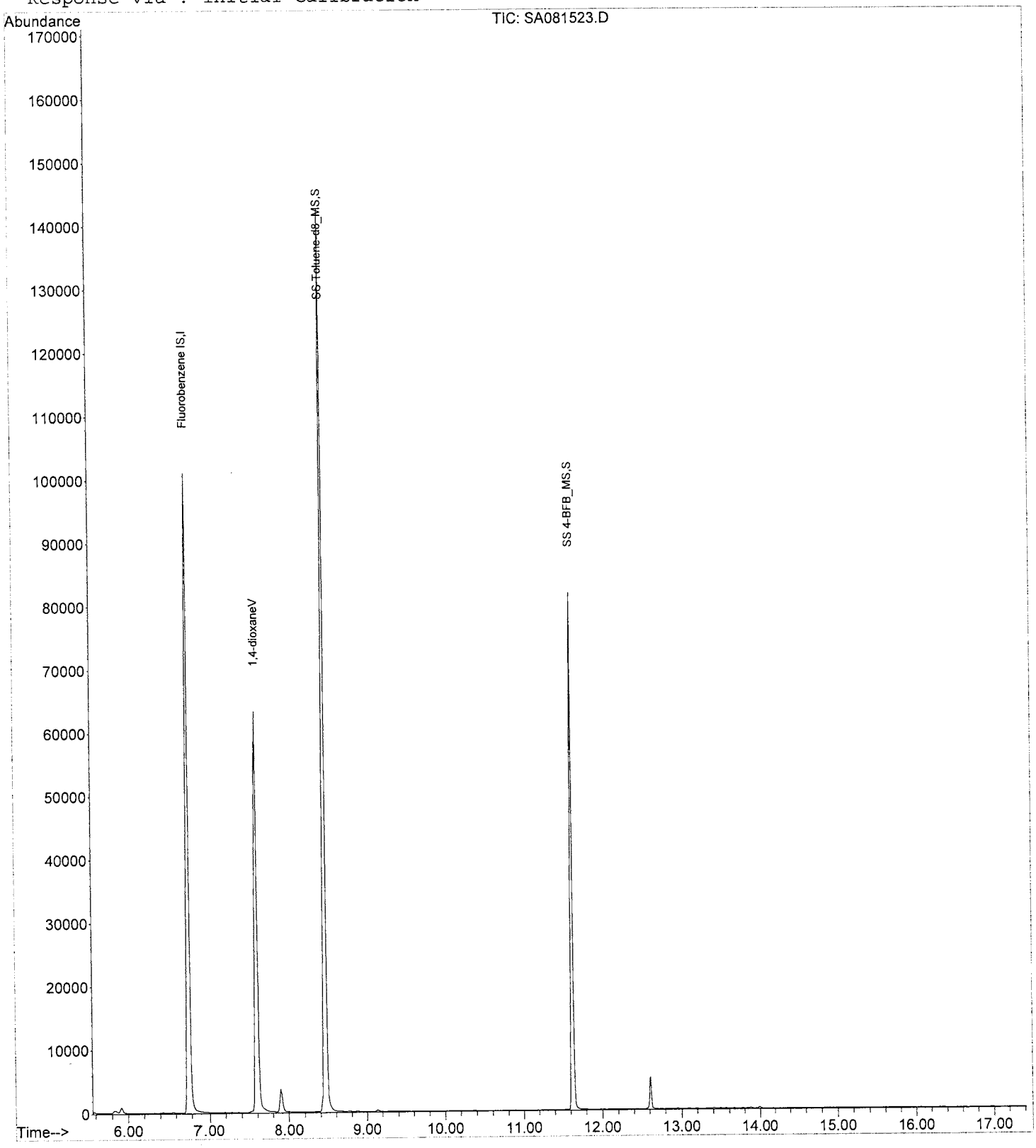
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081523.D 2SIM0510.M Fri Aug 16 08:38:24 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081523.D Vial: 23
Acq On : 16 Aug 2013 2:57 am Operator: VG
Sample : 123529.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081524.D Vial: 24
Acq On : 16 Aug 2013 3:48 am Operator: VG
Sample : 123529.07 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 08:38:27 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	180528	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	182620	9.75	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.45%			
4) SS 4-BFB_MS	11.63	95	75605	11.26	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	98221	129.643	ug/L	89

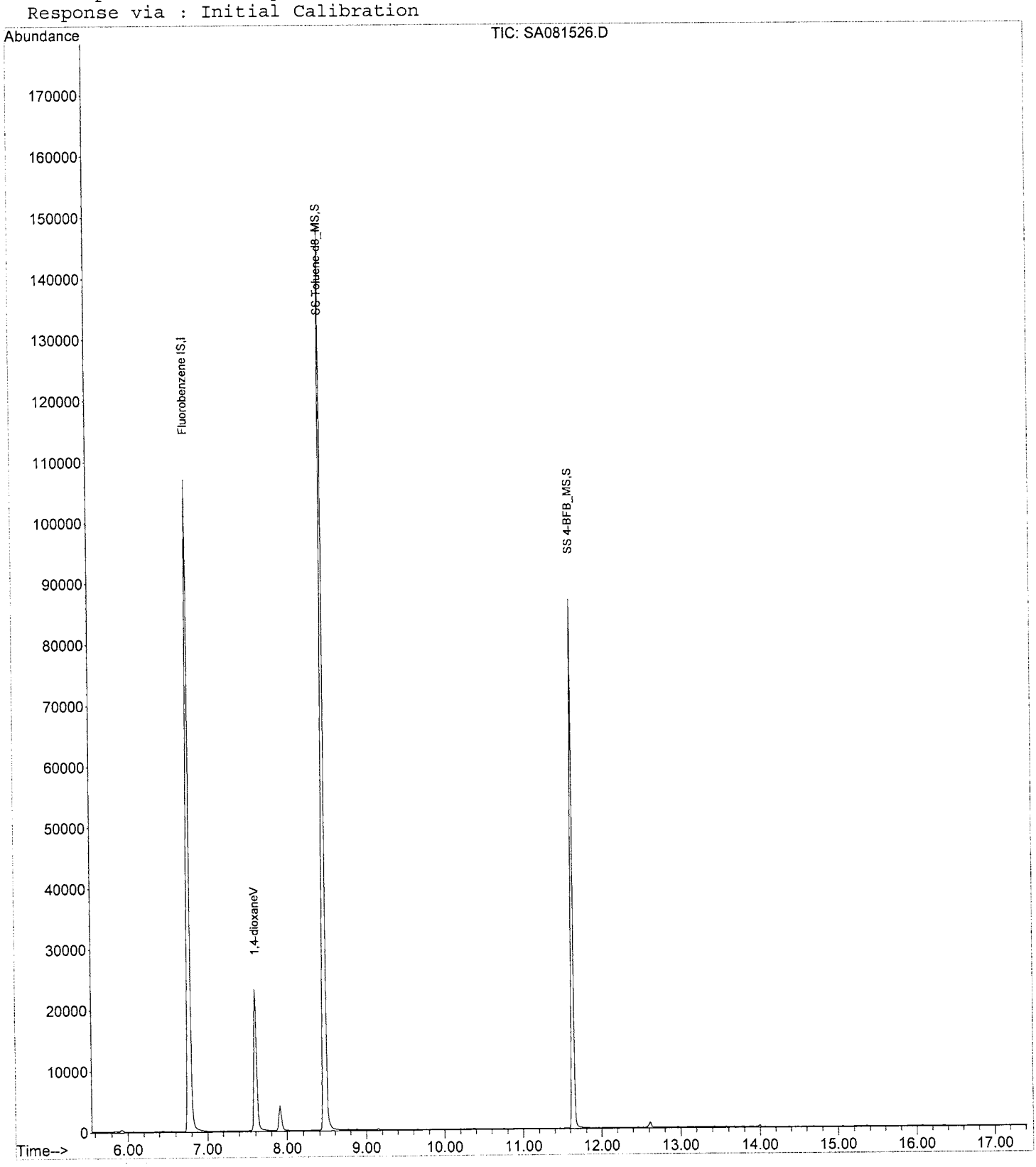
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8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1513\SA081526.D Vial: 26
Acq On : 16 Aug 2013 5:30 am Operator: VG
Sample : 123529.09 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 16 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



IS/SS ID= V- 4079

Standard ID= V- 4040

Analyst: VS

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 8/16/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA081601	BMB				x1	VOCMSI			
2	2	STD5					VOCSIM	8260MSD		
3	3	LCS5					VOC			
4	4	LCSD5					VOC			
5	5	Blank					VOC			
6	6	123574.01					VOC			
7	7	02					VOC			
8	8	03					VOC			
9	9	04					VOC			
10	10	05					VOC			
11	11	06					VOC			
12	12	07					VOC			
13	13	08					VOC			
14	14	09					VOC			
15	15	11					VOC			
16	16	STD.25					VOC			
17	17	BMB					VOC MSI			
18	18	STD5					VOCSIM			
19	19	LCS5					VOC			
20	20	LCSD5					VOC			
21	21	Blank2					VOC			
22	22	123574.10					VOC			
23	23	11					VOC			
24	24	12					VOC			
25	25	13					VOC			
26	26	14					VOC			
27	27	15					VOC			
28	28	16					VOC			
29	29	17					VOC			
30	30	123574.12					VOC			
31	31	13		↓		↓	VOC			
							VOC			
							VOC			
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							VOC			

Samples removed from autosampler, order verified by VS 8/19/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1613\SA081617.D
Tune Time : 16 Aug 2013 11:54 pm

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1613\SA081618.D

192331

File	Sample	Surrogate Recovery %		Internal Standard Responses
SA081618.D	STD5	92	100	192331
SA081619.D	LCS5	98	101	189438
SA081620.D	LCSD5	98	102	187838
SA081621.D	BLANK	98	102	188394
SA081622.D	123529.10	94	103	189682
SA081623.D	123529.11	99	103	190839
SA081624.D	123529.12	95	101	200593
SA081625.D	123529.13	95	102	198551
SA081626.D	123529.14	94	101	198231
SA081627.D	123529.15	98	101	198691
SA081628.D	123529.16	94	101	199155
SA081629.D	123529.17	100	102	199948
SA081630.D	123574.12	99	102	199005
SA081631.D	123574.13	99	101	194685

t - fails 12hr time check * - fails criteria

Created: Sun Aug 18 12:11:34 2013 VOAMS2

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081616.D Vial: 16
Acq On : 16 Aug 2013 11:03 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:48:26 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

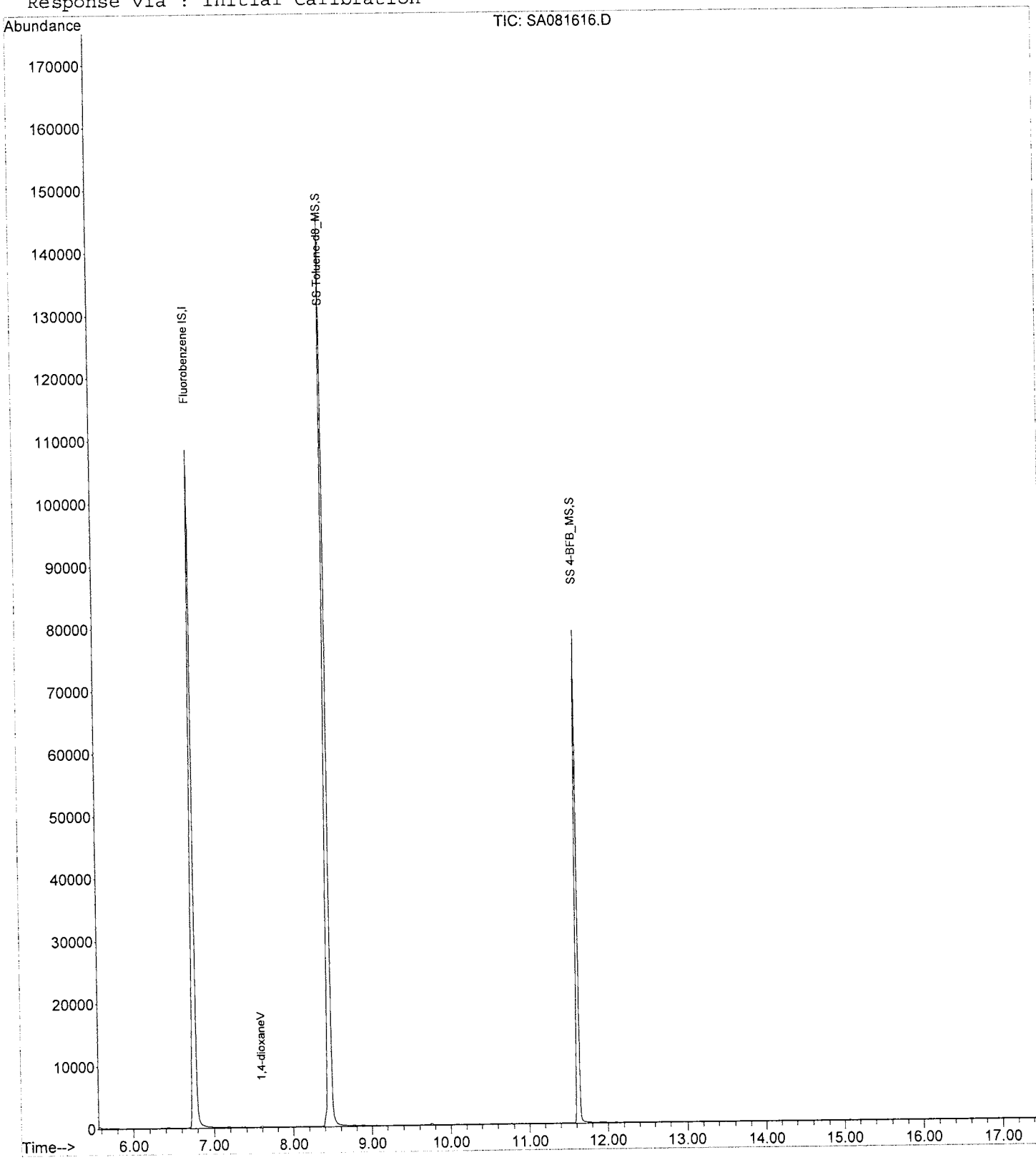
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	197821	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	197351	9.61	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.11%		
4) SS 4-BFB_MS		11.62	95	73310	9.97	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.66%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	215	0.259	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

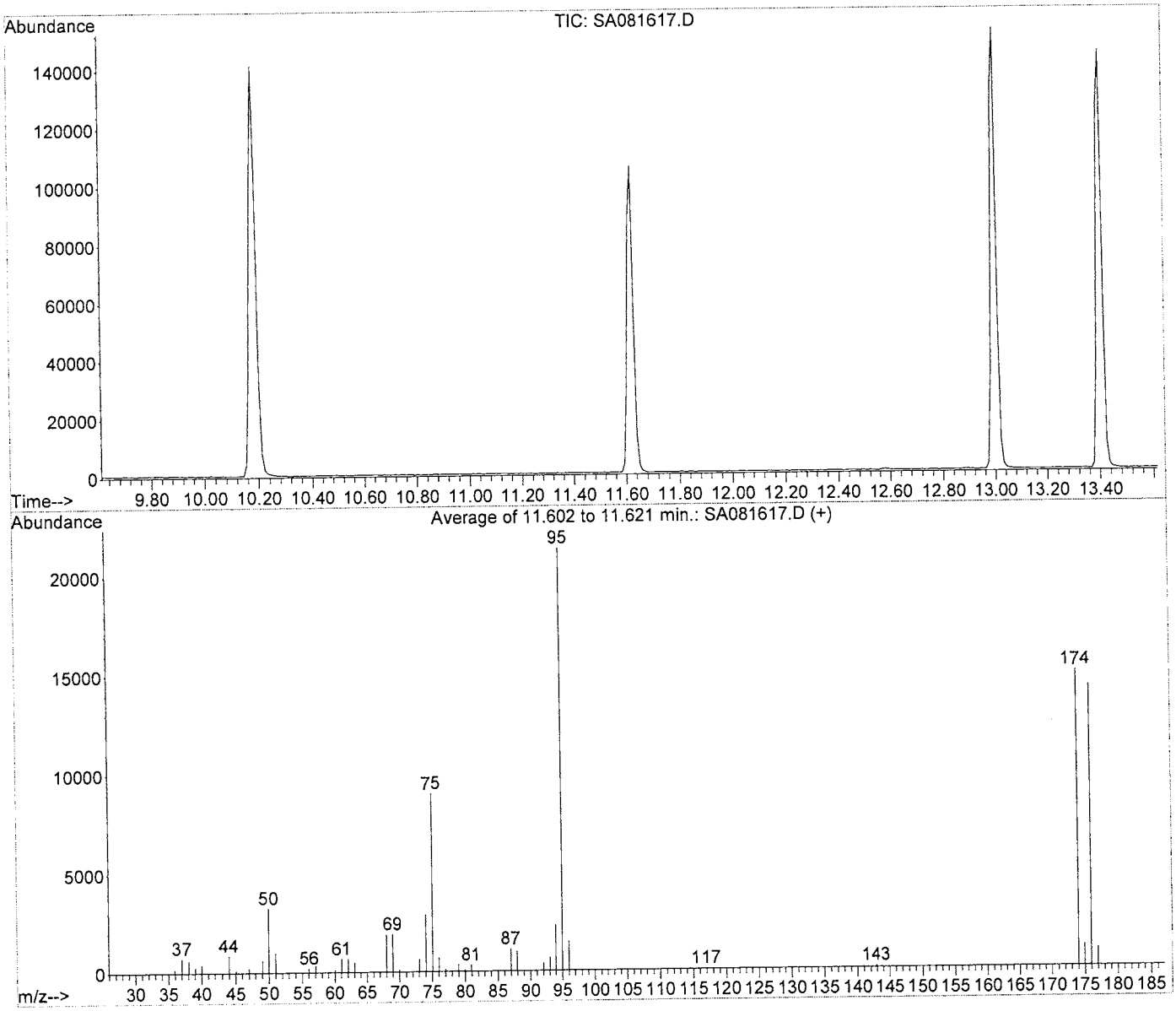
Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081616.D Vial: 16
Acq On : 16 Aug 2013 11:03 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:46 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081617.D
Acq On : 16 Aug 2013 11:54 pm
Sample : BFB
Misc : X1;5mL
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09

Vial: 17
Operator: VG
Inst : VOAMS2
Multiplr: 1.00



Spectrum Information: Average of 11.602 to 11.621 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	3276	PASS
75	95	30	60	42.3	9014	PASS
95	95	100	100	100.0	21330	PASS
96	95	5	9	7.0	1483	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.0	14929	PASS
175	174	5	9	7.2	1082	PASS
176	174	95	101	95.0	14189	PASS
177	176	5	9	6.5	918	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081618.D Vial: 18
Acq On : 17 Aug 2013 12:46 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene IS	10.000	10.000	0.0	121	-0.02
2	1,4-dioxaneV	5.000	5.006	-0.1	121	-0.02
3 S	SS Toluene-d8_MS	10.000	9.220	7.8	110	-0.02
4 S	SS 4-BFB_MS	10.000	9.978	0.2	121	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 09:19:11 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081618.D Vial: 18
Acq On : 17 Aug 2013 12:46 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:50:24 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

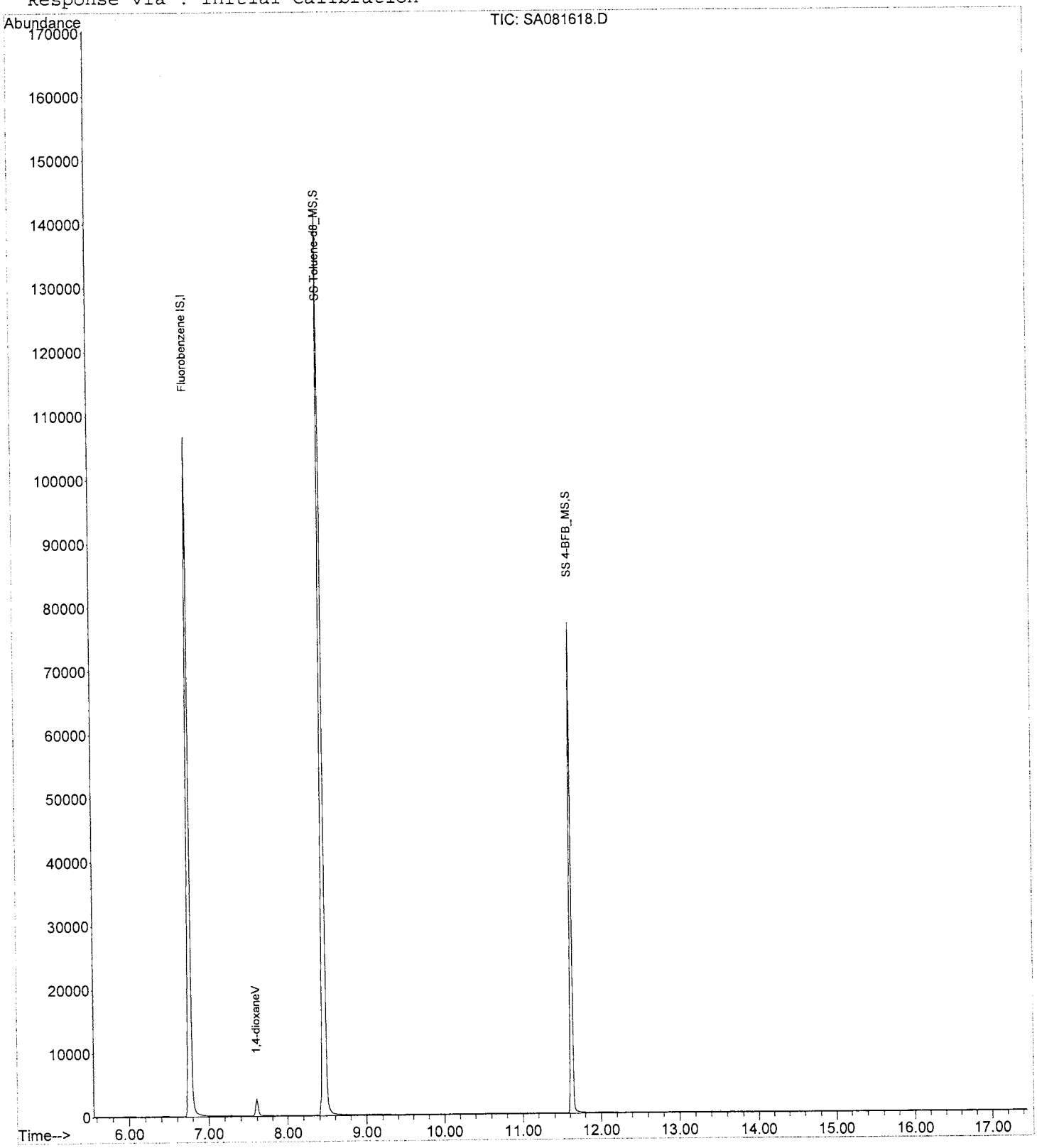
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	192331	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	184070	9.22	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.20%			
4) SS 4-BFB_MS	11.62	95	71359	9.98	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.78%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	4041	5.006	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081618.D Vial: 18
Acq On : 17 Aug 2013 12:46 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:48 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081619.D Vial: 19
Acq On : 17 Aug 2013 1:40 am Operator: VG
Sample : LCSaA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:50:35 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

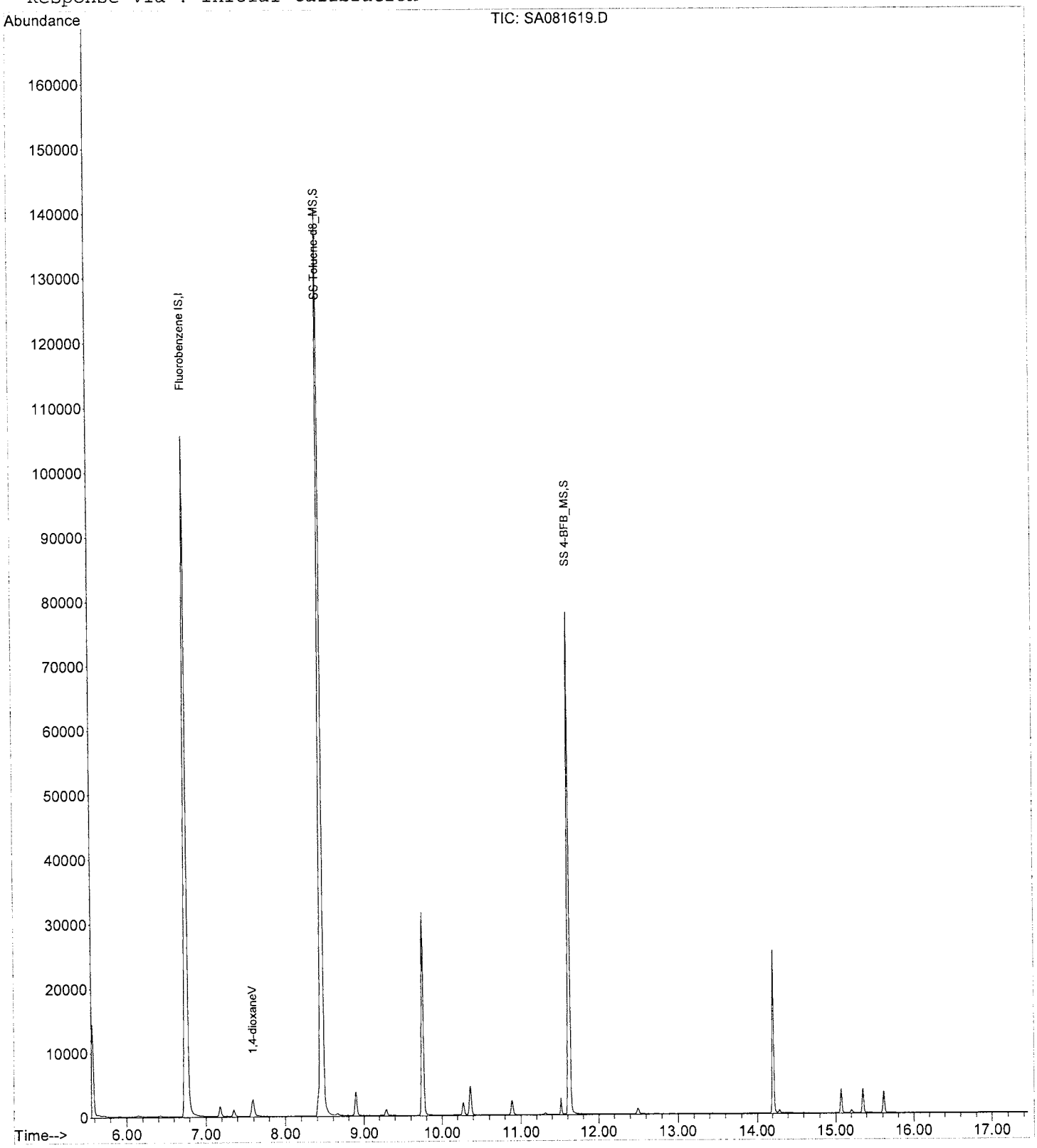
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.76	96	189438	10.000	ug/L	-0.02
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	193387	9.83	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130			Recovery =	98.35%		
4) SS 4-BFB_MS			11.62	95	70954	10.07	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130			Recovery =	100.73%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.60	88	3793m	4.771	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081619.D Vial: 19
Acq On : 17 Aug 2013 1:40 am Operator: VG
Sample : LCSaA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 12:12 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081620.D Vial: 20
Acq On : 17 Aug 2013 2:31 am Operator: VG
Sample : LCSDA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:50:46 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

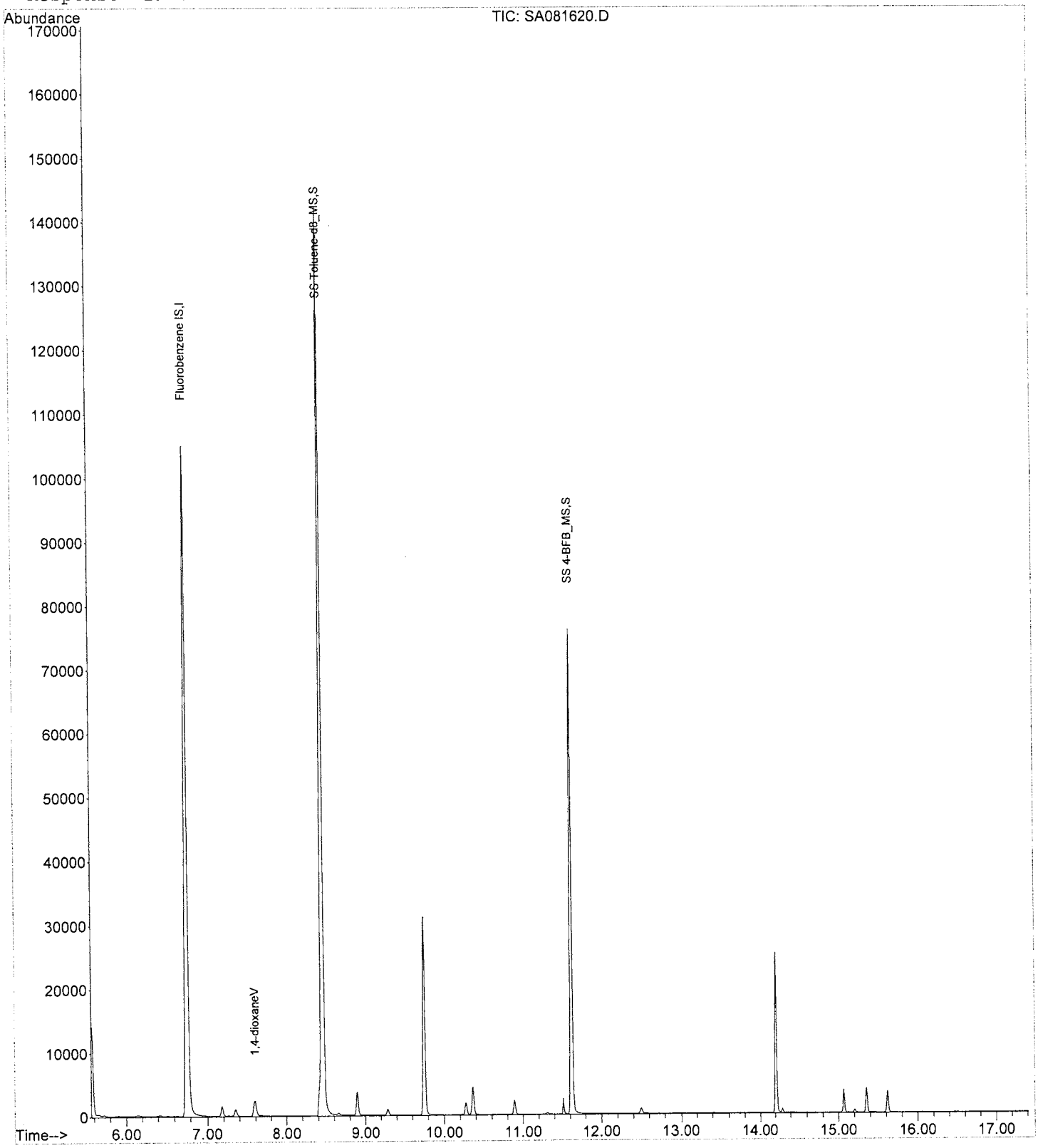
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	187838	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	191709	9.83	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.32%		
4) SS 4-BFB_MS		11.62	95	71071	10.18	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.76%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	3506m	4.448	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081620.D Vial: 20
Acq On : 17 Aug 2013 2:31 am Operator: VG
Sample : LCSDA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 12:12 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081621.D Vial: 21
Acq On : 17 Aug 2013 3:22 am Operator: VG
Sample : BlnkA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:50:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

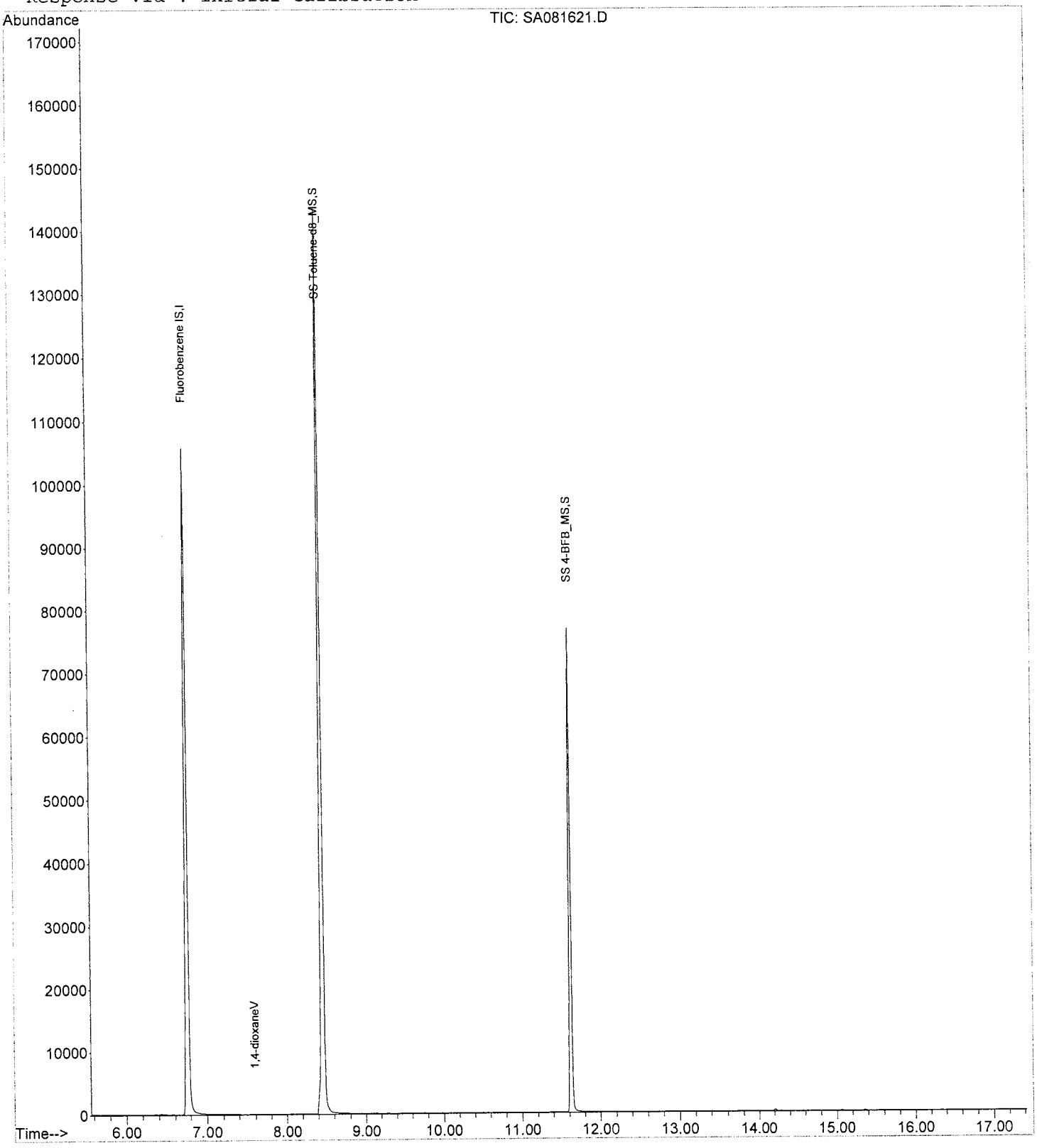
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	188394	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	190813	9.76	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.58%			
4) SS 4-BFB_MS	11.62	95	71781	10.25	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.47%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	87	0.110	ug/L	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081621.D Vial: 21
Acq On : 17 Aug 2013 3:22 am Operator: VG
Sample : BlnkA081613V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:49 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081622.D Vial: 22
Acq On : 17 Aug 2013 4:13 am Operator: VG
Sample : 123529.10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:47 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	189682	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.45	98	185194	9.41	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.06%			
4) SS 4-BFB_MS	11.62	95	72320	10.25	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.54%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	36361	45.677	ug/L	100

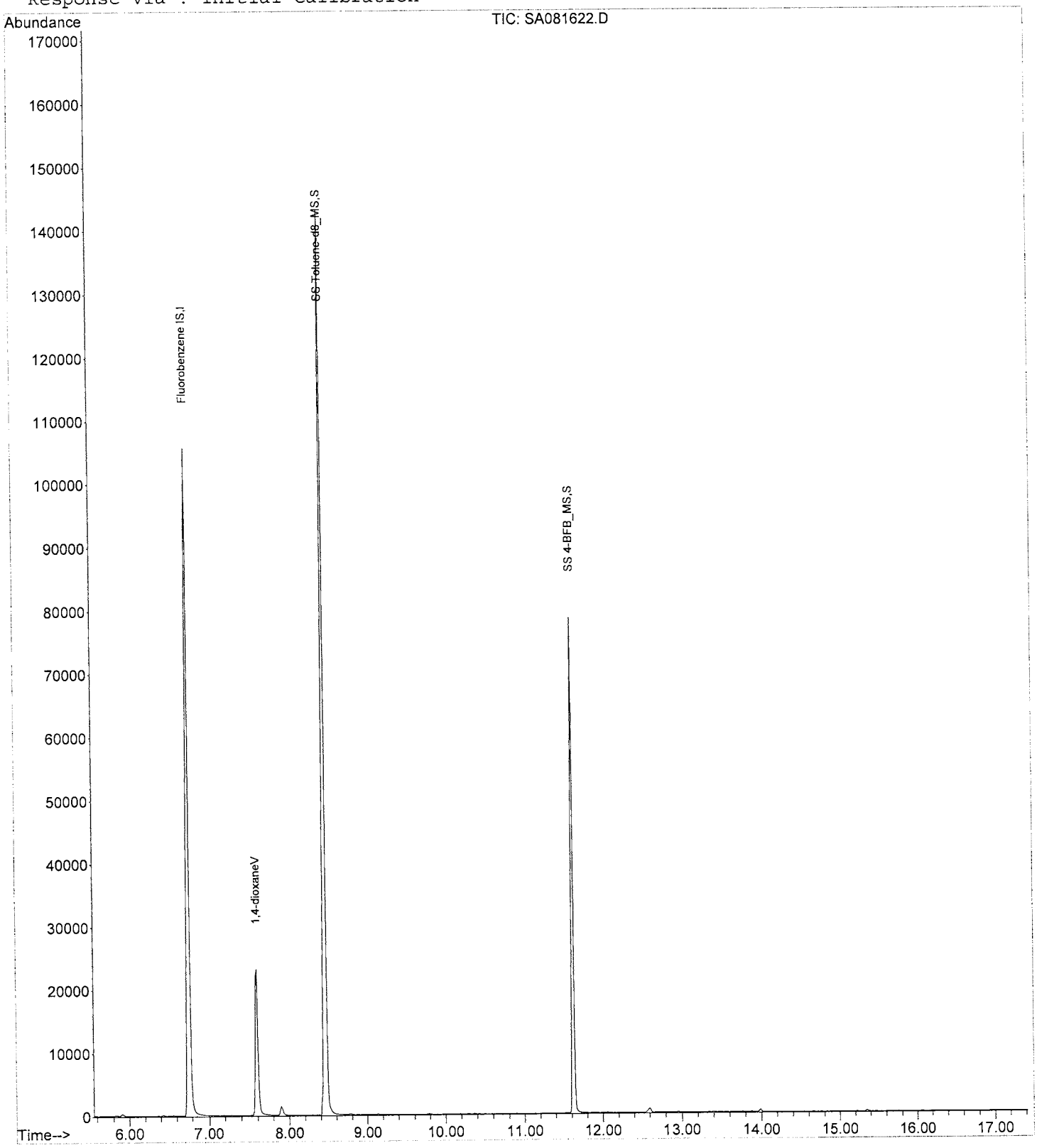
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081622.D 2SIM0510.M Sun Aug 18 11:52:47 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081622.D Vial: 22
Acq On : 17 Aug 2013 4:13 am Operator: VG
Sample : 123529.10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:50 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081623.D Vial: 23
Acq On : 17 Aug 2013 5:05 am Operator: VG
Sample : 123529.11 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:49 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	190839	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	195941	9.89	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.91%			
4) SS 4-BFB_MS	11.62	95	73125	10.31	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.05%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	34267	42.786	ug/L	96

Rerun X10
Maybe C.O.

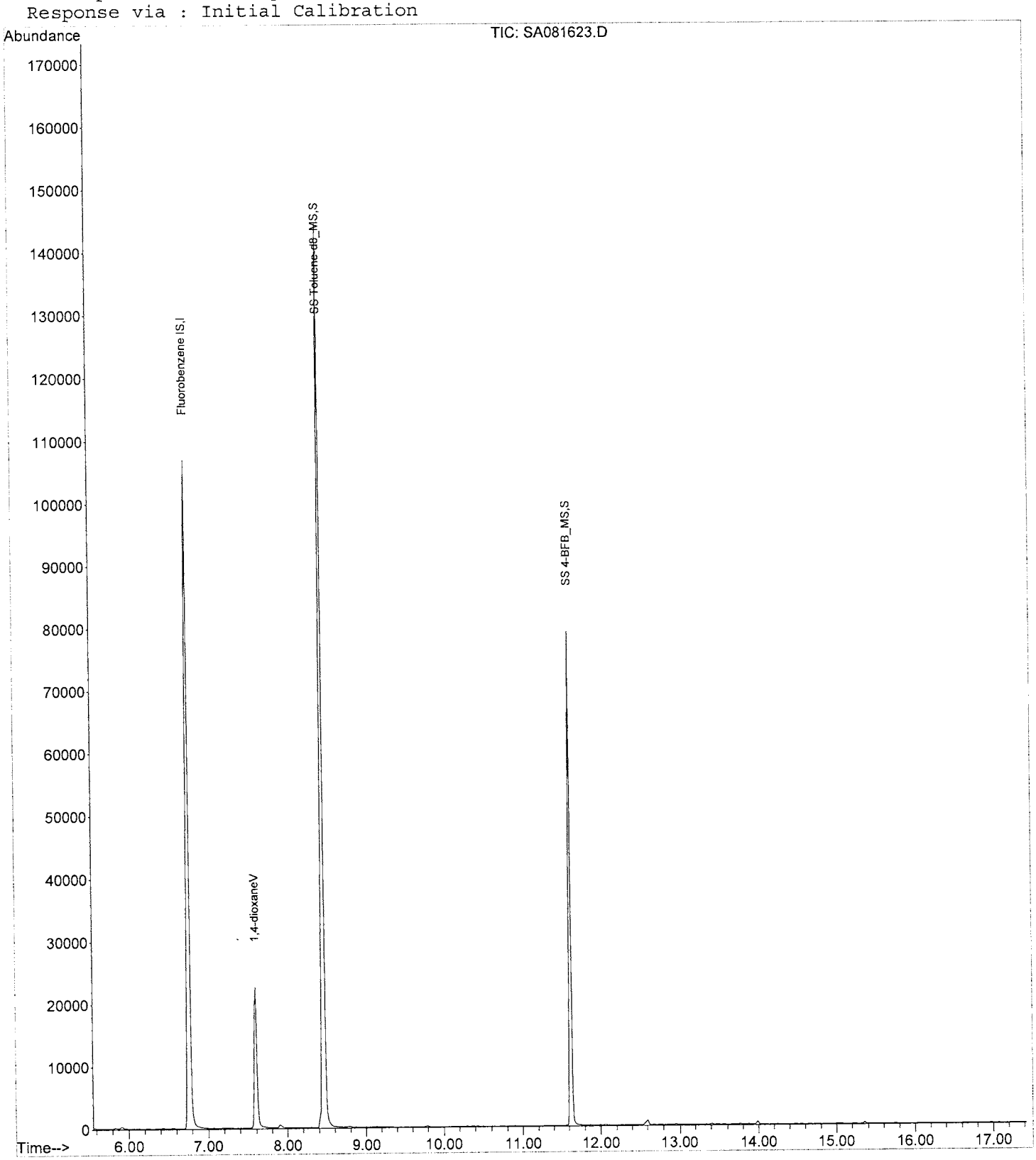
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081623.D Vial: 23
Acq On : 17 Aug 2013 5:05 am Operator: VG
Sample : 123529.11 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081624.D Vial: 24
Acq On : 17 Aug 2013 5:54 am Operator: VG
Sample : 123529.12 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:51 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	200593	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	197378	9.48	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.79%			
4) SS 4-BFB_MS	11.63	95	75367	10.10	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.05%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	33722	40.058	ug/L	88

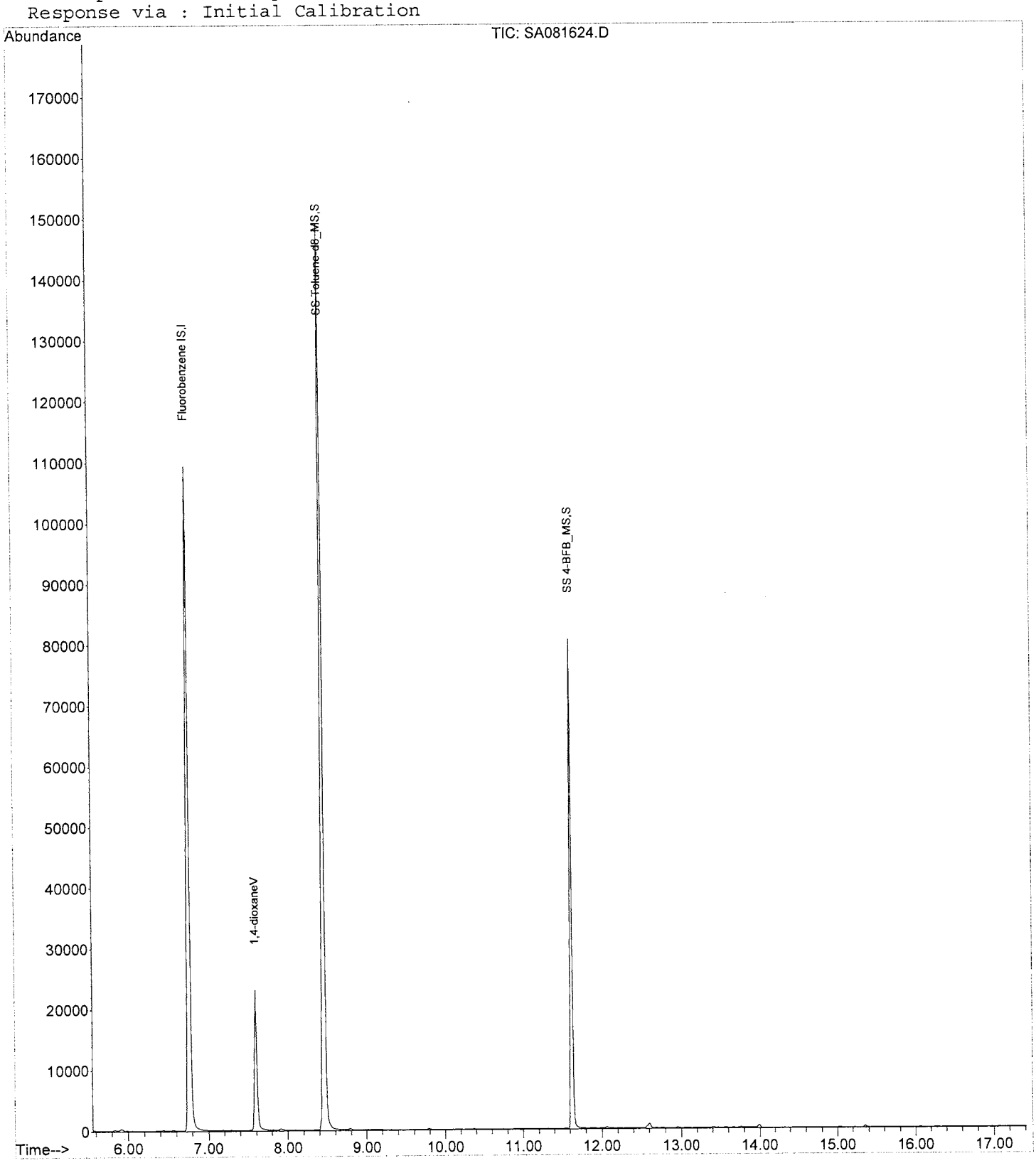
Rerun x10
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081624.D 2SIM0510.M Sun Aug 18 11:52:51 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081624.D Vial: 24
Acq On : 17 Aug 2013 5:54 am Operator: VG
Sample : 123529.12 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081625.D Vial: 25
Acq On : 17 Aug 2013 6:44 am Operator: VG
Sample : 123529.13 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:53 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	198551	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	194913	9.46 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%		
4) SS 4-BFB_MS	11.62	95	75068	10.17 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.68%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	36802	44.166 ug/L	92

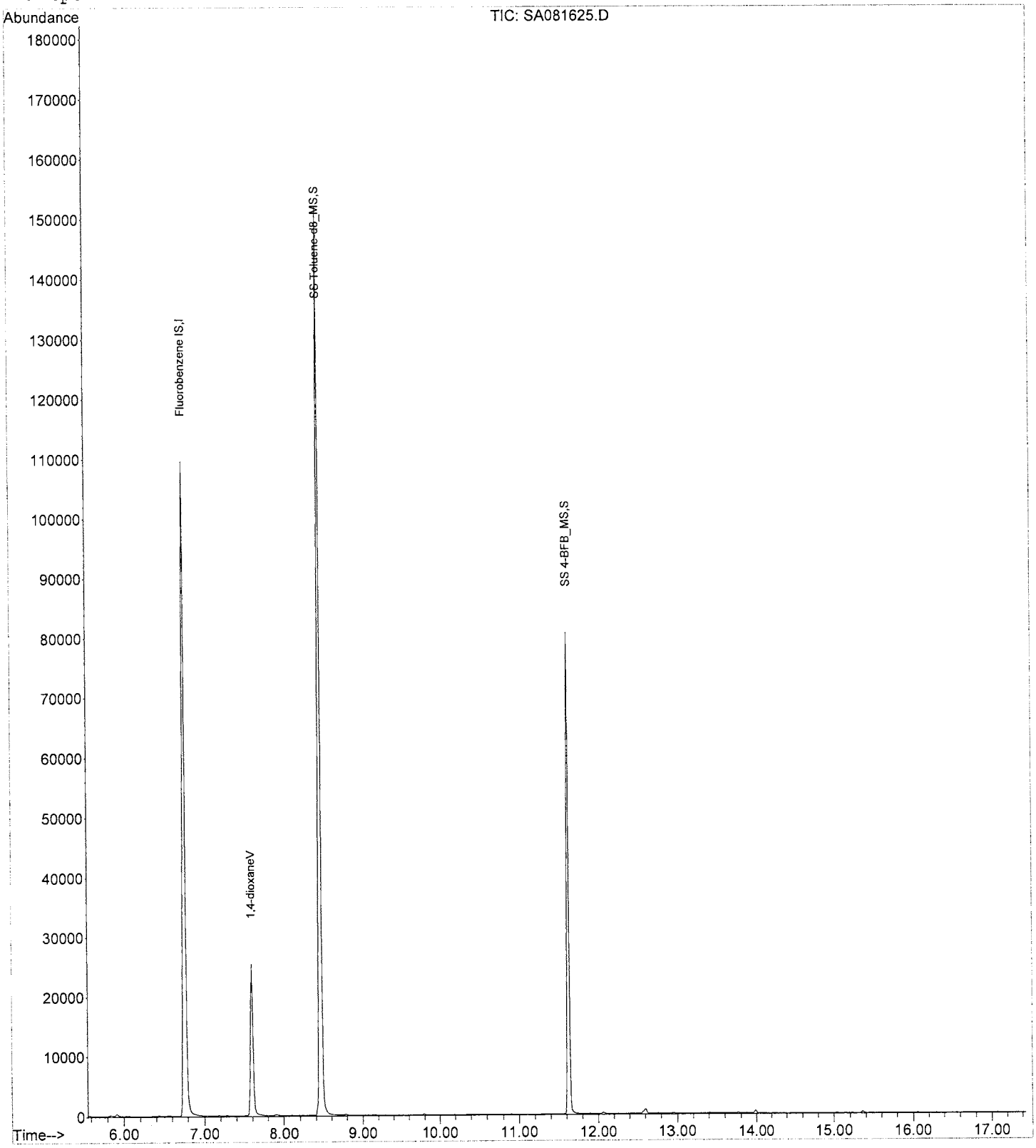
Form X10
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081625.D Vial: 25
Acq On : 17 Aug 2013 6:44 am Operator: VG
Sample : 123529.13 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081626.D Vial: 26
Acq On : 17 Aug 2013 7:33 am Operator: VG
Sample : 123529.14 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:55 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	198231	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	193677	9.41	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	94.12%		
4) SS 4-BFB_MS		11.63	95	74630	10.12	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.25%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	1308	1.572	ug/L	75

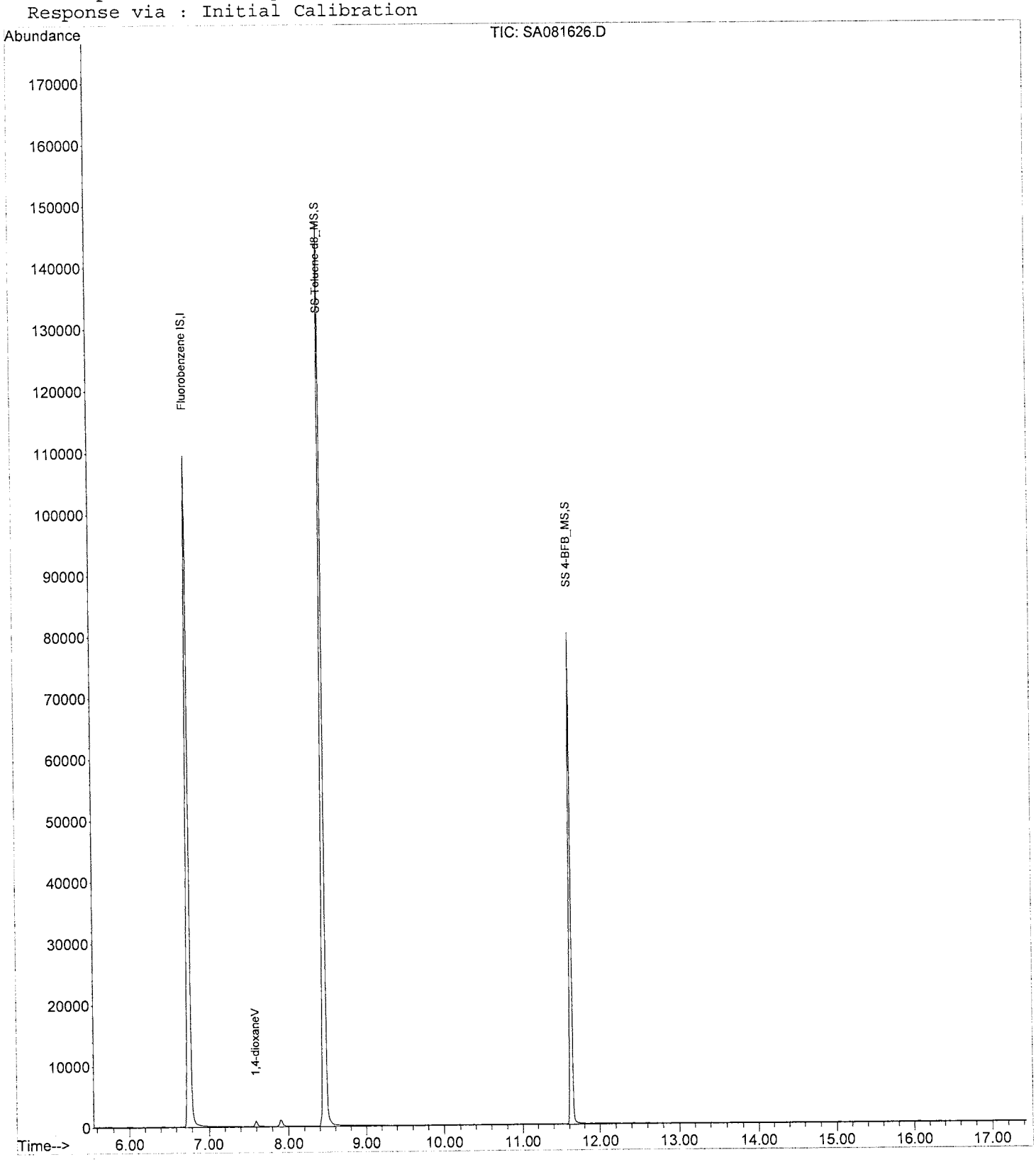
Probable C.O.
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081626.D Vial: 26
Acq On : 17 Aug 2013 7:33 am Operator: VG
Sample : 123529.14 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081627.D Vial: 27
Acq On : 17 Aug 2013 8:23 am Operator: VG
Sample : 123529.15 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	198691	10.000 ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS		8.46	98	202591	9.82 ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.23%	
4) SS 4-BFB_MS		11.63	95	74692	10.11 ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.10%	
Target Compounds						Qvalue
2) 1,4-dioxaneV		7.59	88	655	0.786 ug/L	78

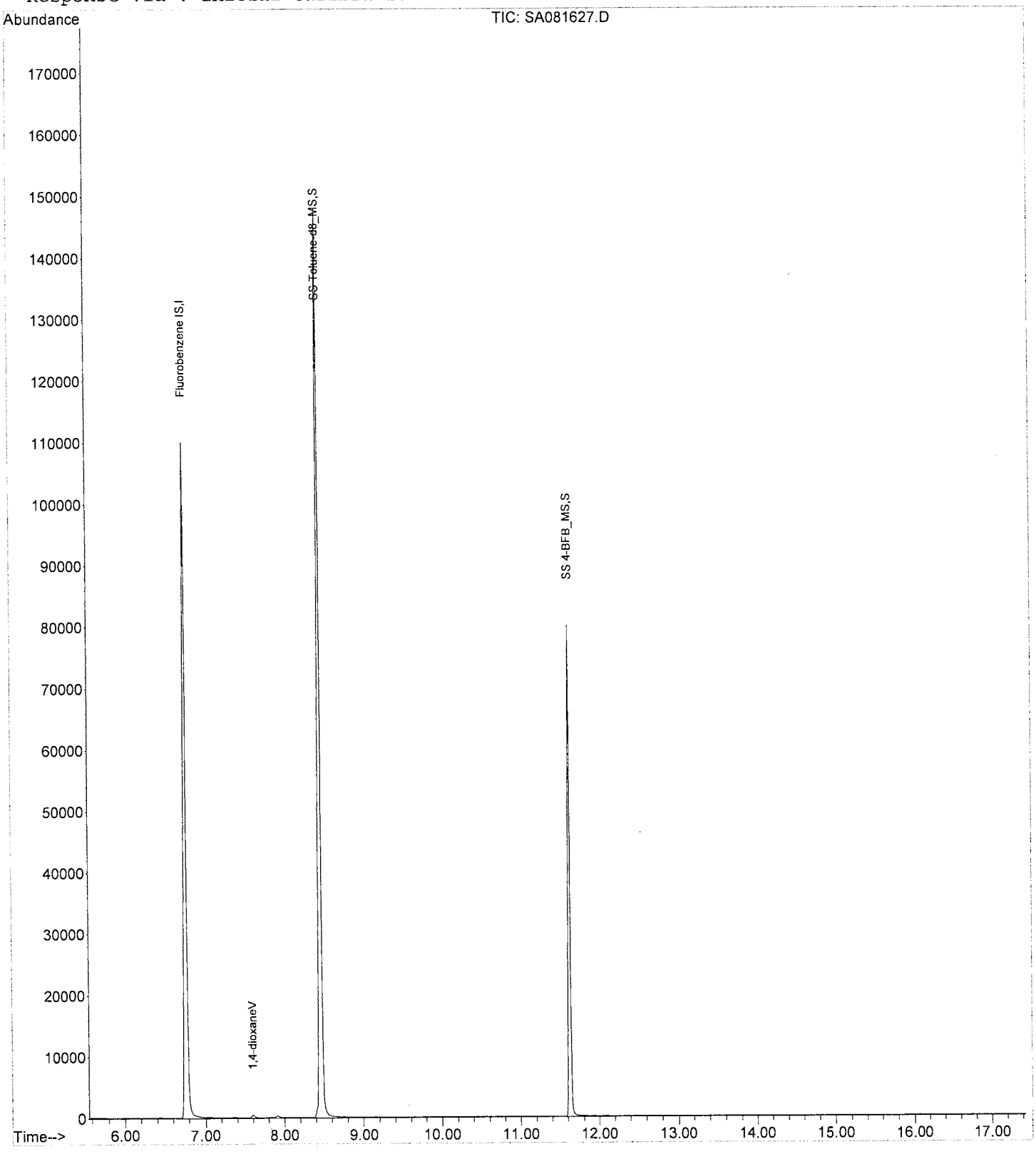
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081627.D Vial: 27
Acq On : 17 Aug 2013 8:23 am Operator: VG
Sample : 123529.15 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081628.D Vial: 28
Acq On : 17 Aug 2013 9:12 am Operator: VG
Sample : 123529.16 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:52:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	199155	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	193326	9.35 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.52%		
4) SS 4-BFB_MS	11.63	95	74646	10.08 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.80%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	583	0.698 ug/L	95

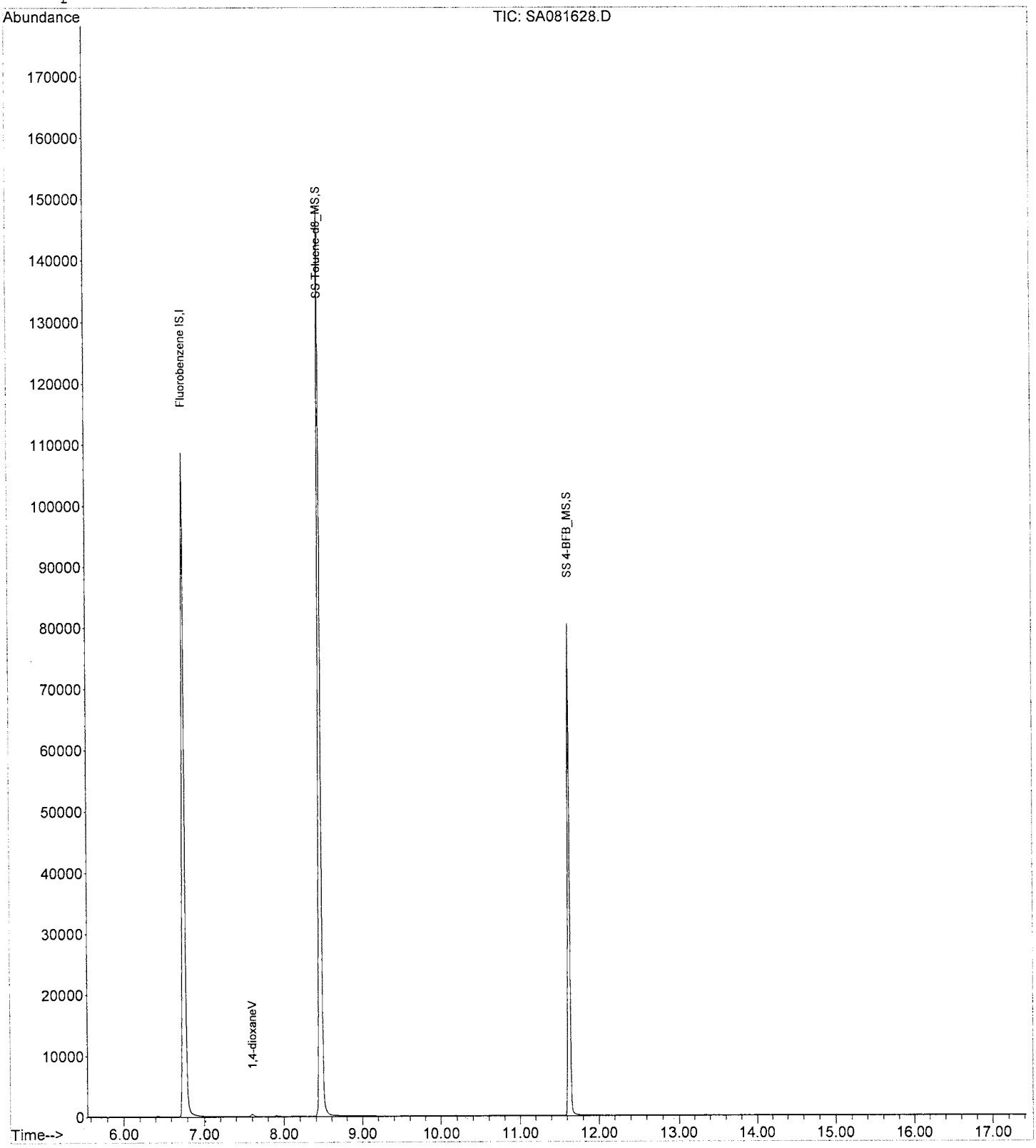
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081628.D Vial: 28
Acq On : 17 Aug 2013 9:12 am Operator: VG
Sample : 123529.16 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081629.D Vial: 29
Acq On : 17 Aug 2013 10:01 am Operator: VG
Sample : 123529.17 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:53:01 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	199948	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	206688	9.96	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.59%		
4) SS 4-BFB_MS		11.63	95	76155	10.24	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	102.43%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	1162	1.385	ug/L	73

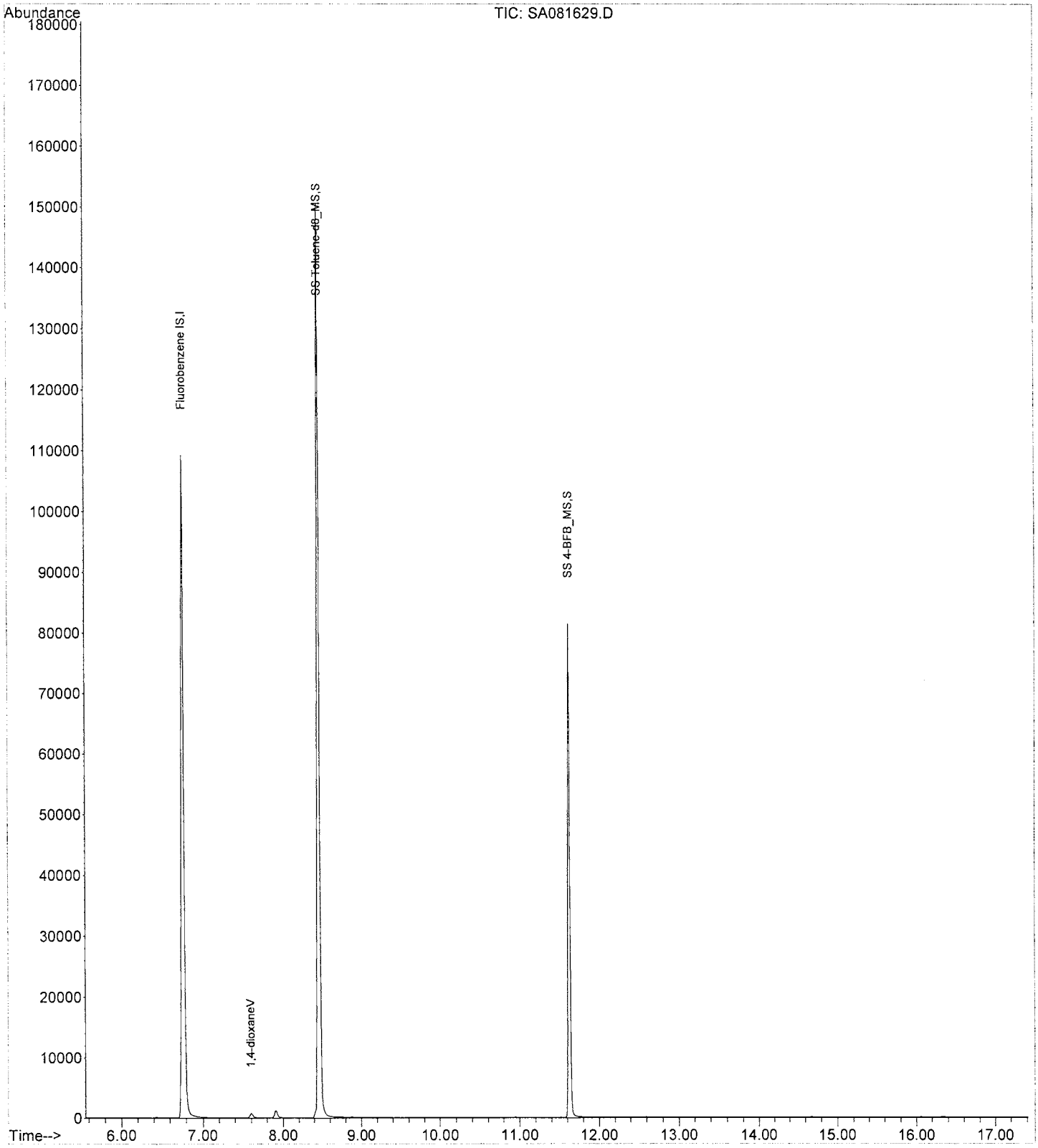
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1613\SA081629.D Vial: 29
Acq On : 17 Aug 2013 10:01 am Operator: VG
Sample : 123529.17 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 18 11:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



VOAMS2 Analysis Run Log

IS/SS ID= V- 4079
Standard ID= V- 4040
LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 8/18/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA081801	BMB		✓		x1	VOC MSI			
2	2	STD5					VOC SIM	2SIM510		
3	3	LCS5					VOC			
4	4	LCSD5					VOC			
5	5	BLANK					VOC			
6	6	123529.18					VOC			
7	7	19					VOC			
8	8	20					VOC			
9	9	21					VOC			
10	10	22					VOC			
11	11	23					VOC			
12	12	24					VOC			
13	13	25					VOC			
14	14	27					VOC			
15	15	26					VOC			
16	16	STD5					VOC			
17	17	BMB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS5					VOC			
20	20	LCSD5					VOC			
21	21	BLANK					VOC			
22	22	123529.28					VOC			
23	23	26					VOC			
24	24	123612.01					VOC			
25	25	02					VOC			
26	26	03					VOC			
27	27	04					VOC			
28	28	05					VOC			
29	29	06					VOC			
30	30	07					VOC			
31	31	08		↓		↓	VOC			
32	32	BMB				x1	VOC MSI			
33	33	STD5					VOC SIM			
34	34	LCS5					VOC			
35	35	LCSD5					VOC			
36	36	BLANK					VOC			
37	37	123529.26		✓			VOC			
38	38	14		✓			VOC			
39	39	24		✓		↓	VOC			
40	40	11		✓		x10	VOC			
41	41	12		✓			VOC			
42	42	13		✓	↓	↓	VOC			

Samples removed from autosampler, order verified by VG 8/19/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1813\SA081801.D
Tune Time : 18 Aug 2013 12:26 pm

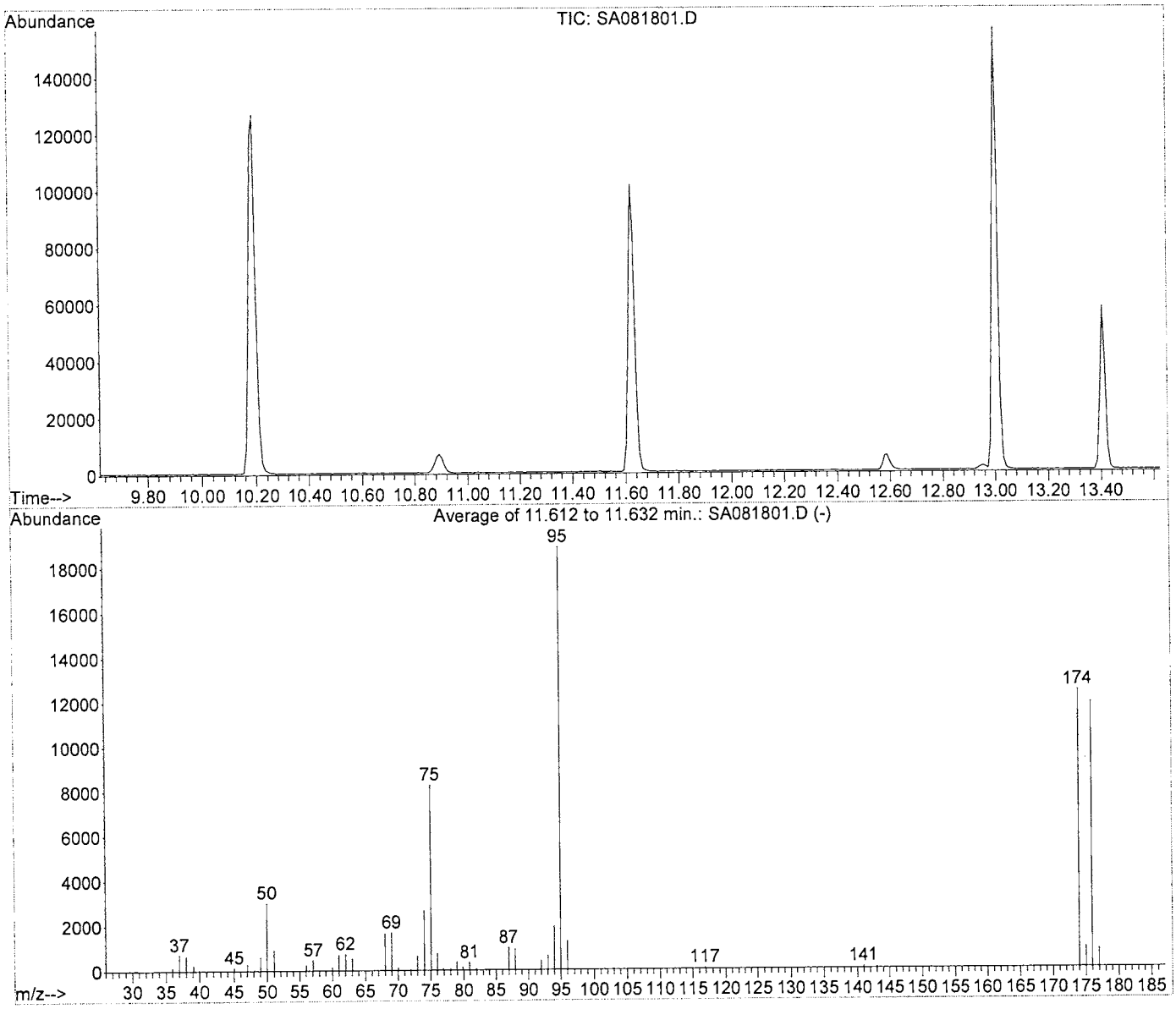
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1813\SA081802.D

				194824
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA081802.D	STD5	97	98	194824
SA081803.D	LCS5	97	98	196598
SA081804.D	LCSD	97	97	198503
SA081805.D	BLANK	92	99	200896
SA081806.D	123529.18	94	100	195450
SA081807.D	123529.19	92	98	197612
SA081808.D	123529.20	93	100	195604
SA081809.D	123529.21	98	101	192613
SA081810.D	123529.22	98	101	182812
SA081811.D	123529.23	99	103	180947
SA081812.D	123529.24	96	100	185395
SA081813.D	123529.25	93	102	183245
SA081814.D	123529.27	98	101	180864
SA081815.D	123529.26	98	102	182428
SA081816.D	tSTD0.25	92	102	183453

t - fails 12hr time check * - fails criteria

Created: Mon Aug 19 10:52:34 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081801.D Vial: 1
Acq On : 18 Aug 2013 12:26 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.612 to 11.632 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	3033	PASS
75	95	30	60	43.9	8289	PASS
95	95	100	100	100.0	18891	PASS
96	95	5	9	6.7	1267	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	65.7	12419	PASS
175	174	5	9	7.4	915	PASS
176	174	95	101	95.5	11861	PASS
177	176	5	9	7.0	829	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081802.D Vial: 2
Acq On : 18 Aug 2013 1:15 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	123	-0.01
2		1,4-dioxaneV	5.000	5.326	-6.5	130	-0.01
3	S	SS Toluene-d8_MS	10.000	9.722	2.8	117	-0.01
4	S	SS 4-BFB_MS	10.000	9.802	2.0	121	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 11:43:00 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081802.D Vial: 2
Acq On : 18 Aug 2013 1:15 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:09 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

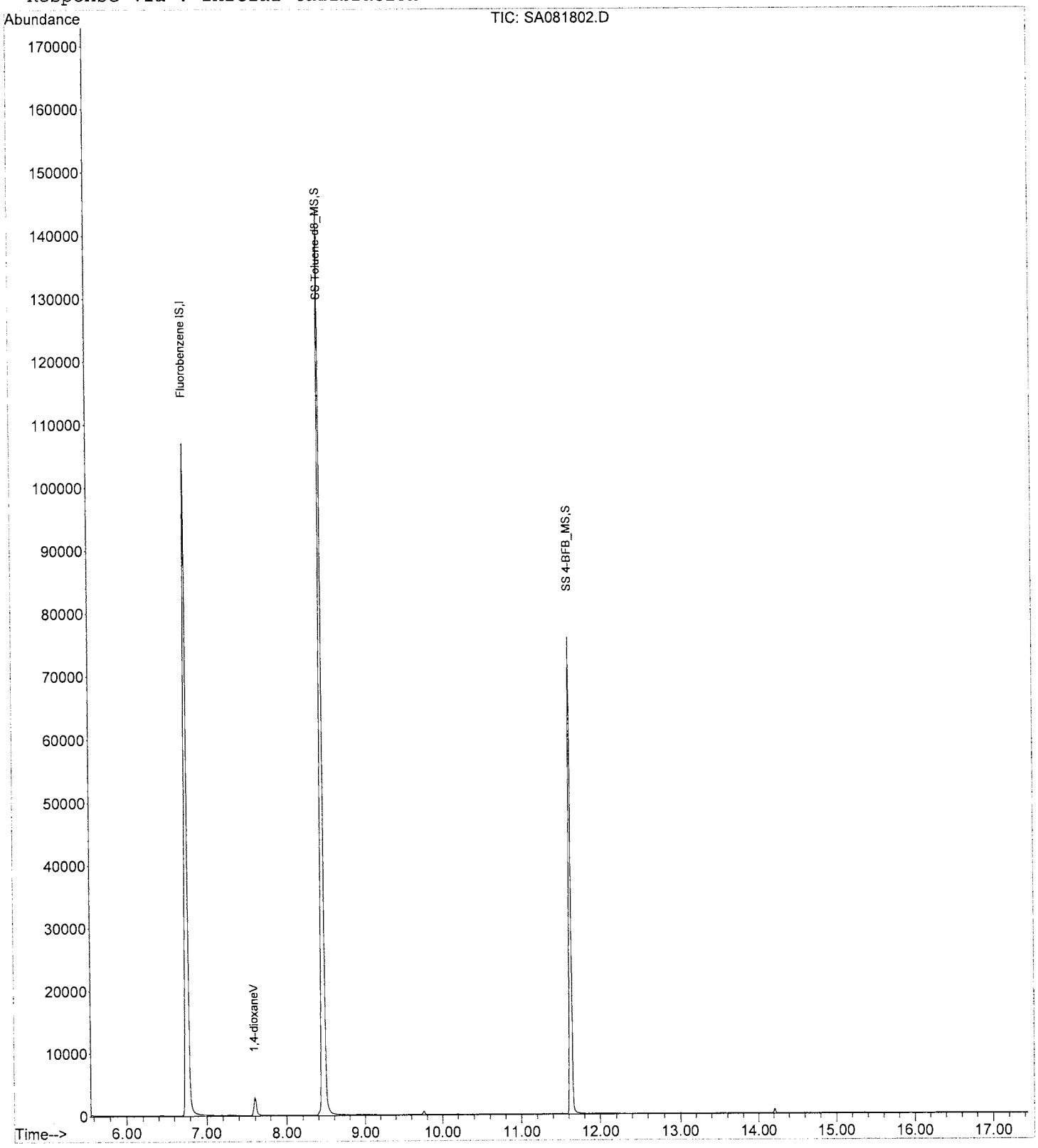
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	194824	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	196605	9.72	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.22%			
4) SS 4-BFB_MS	11.63	95	71005	9.80	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.02%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	4355	5.326	ug/L	71

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081802.D Vial: 2
Acq On : 18 Aug 2013 1:15 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081803.D Vial: 3
Acq On : 18 Aug 2013 2:05 pm Operator: VG
Sample : LCSaA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:21 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

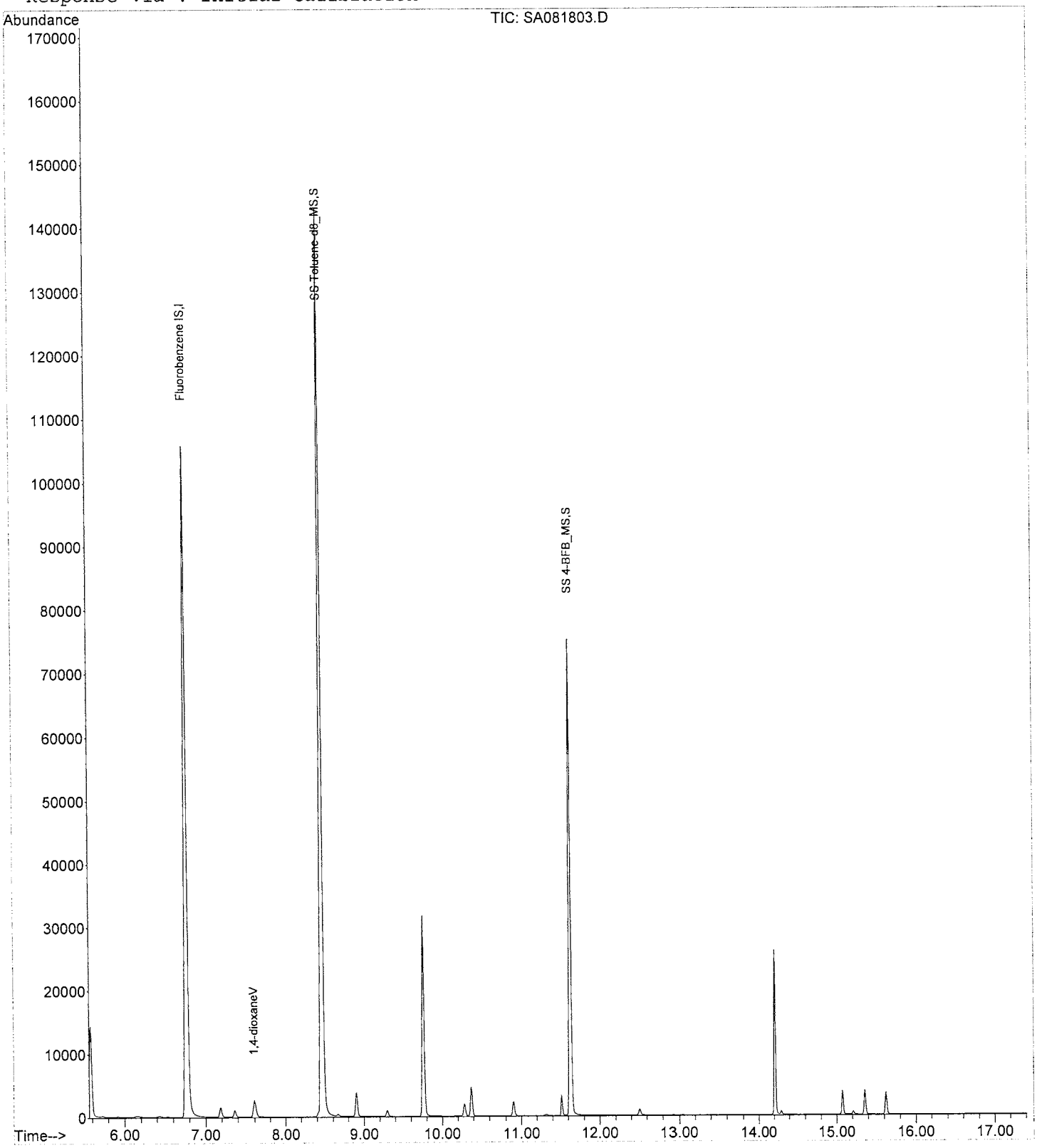
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	196598	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	197089	9.66	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.58%			
4) SS 4-BFB_MS	11.63	95	71286	9.75	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.52%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3655	4.430	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081803.D Vial: 3
Acq On : 18 Aug 2013 2:05 pm Operator: VG
Sample : LCSaA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081804.D Vial: 4
Acq On : 18 Aug 2013 2:55 pm Operator: VG
Sample : LCSDA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:30 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

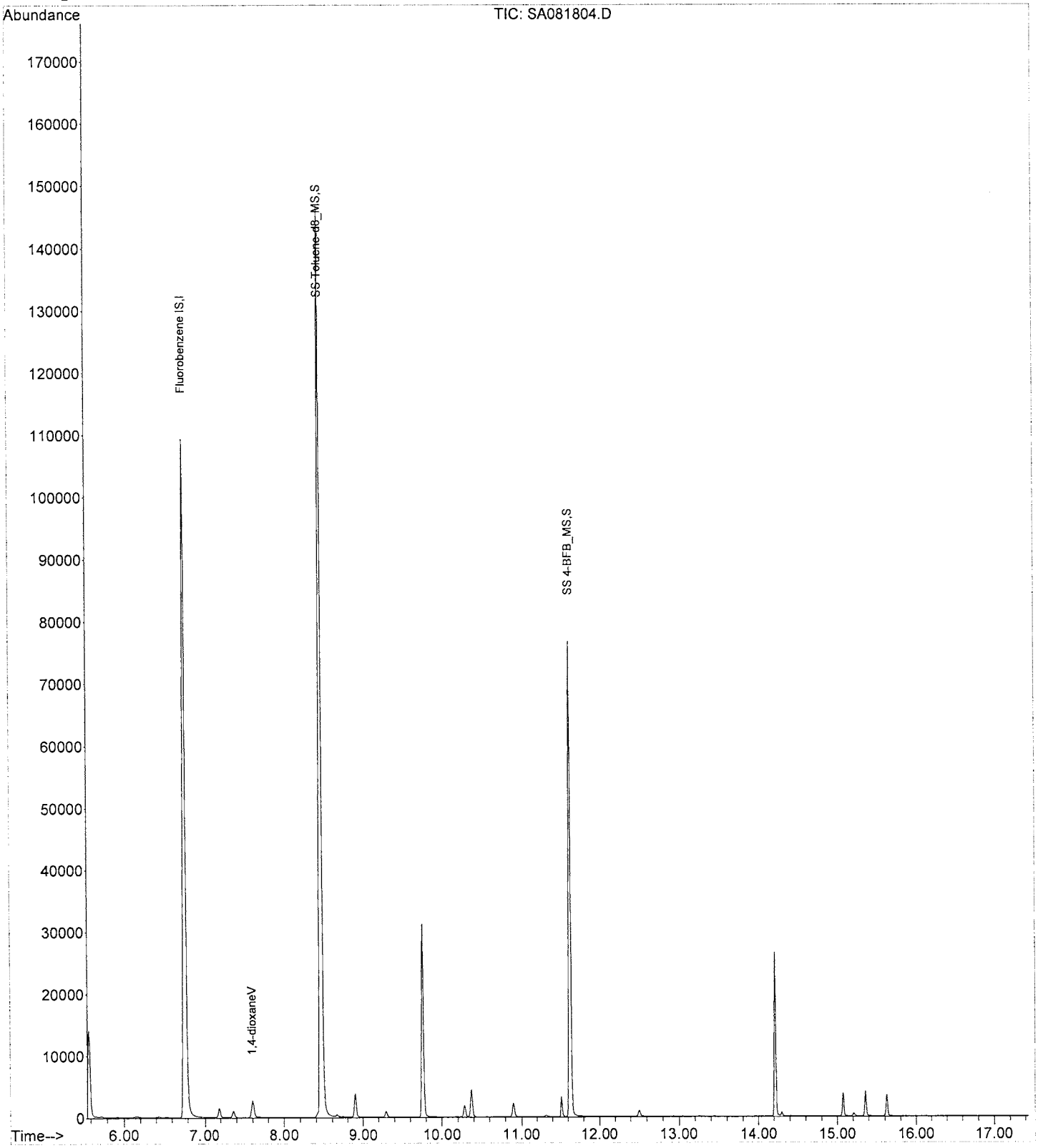
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	198503	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	200363	9.72	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.24%		
4) SS 4-BFB_MS			11.63	95	71964	9.75	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.50%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.60	88	3706m	4.449	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081804.D Vial: 4
Acq On : 18 Aug 2013 2:55 pm Operator: VG
Sample : LCSDA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 12:15 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081805.D Vial: 5
Acq On : 18 Aug 2013 3:45 pm Operator: VG
Sample : BlnkA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:40 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

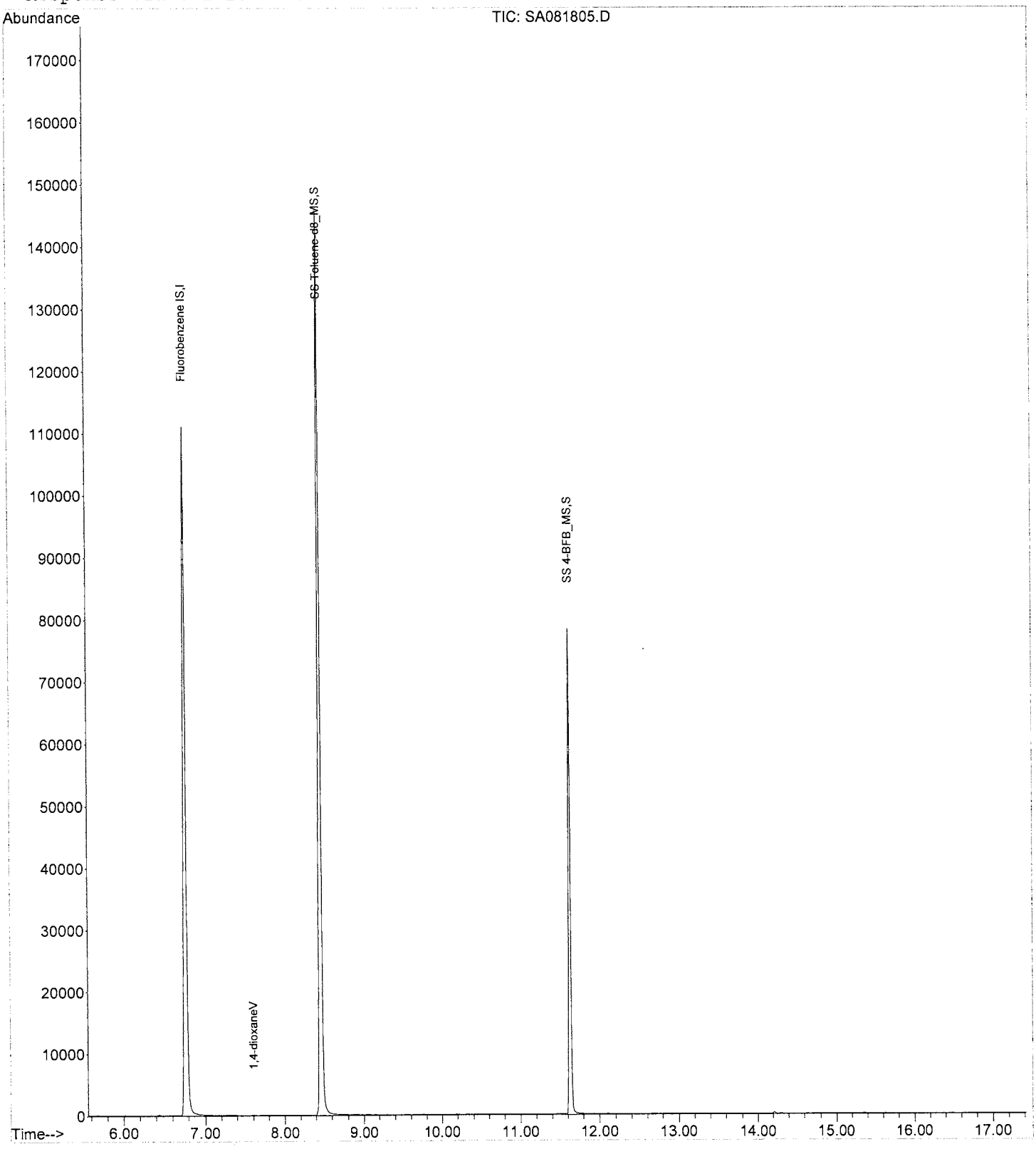
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	200896	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	190904	9.15	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	91.55%		
4) SS 4-BFB_MS			11.63	95	73712	9.87	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	98.68%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	76	0.090	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081805.D Vial: 5
Acq On : 18 Aug 2013 3:45 pm Operator: VG
Sample : BlnkA081813V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081806.D Vial: 6
Acq On : 18 Aug 2013 4:35 pm Operator: VG
Sample : 123529.18 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	195450	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	189698	9.35 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.50%	
4) SS 4-BFB_MS	11.63	95	72416	9.96 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.64%	
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	491	0.599 ug/L	99

8/19/13

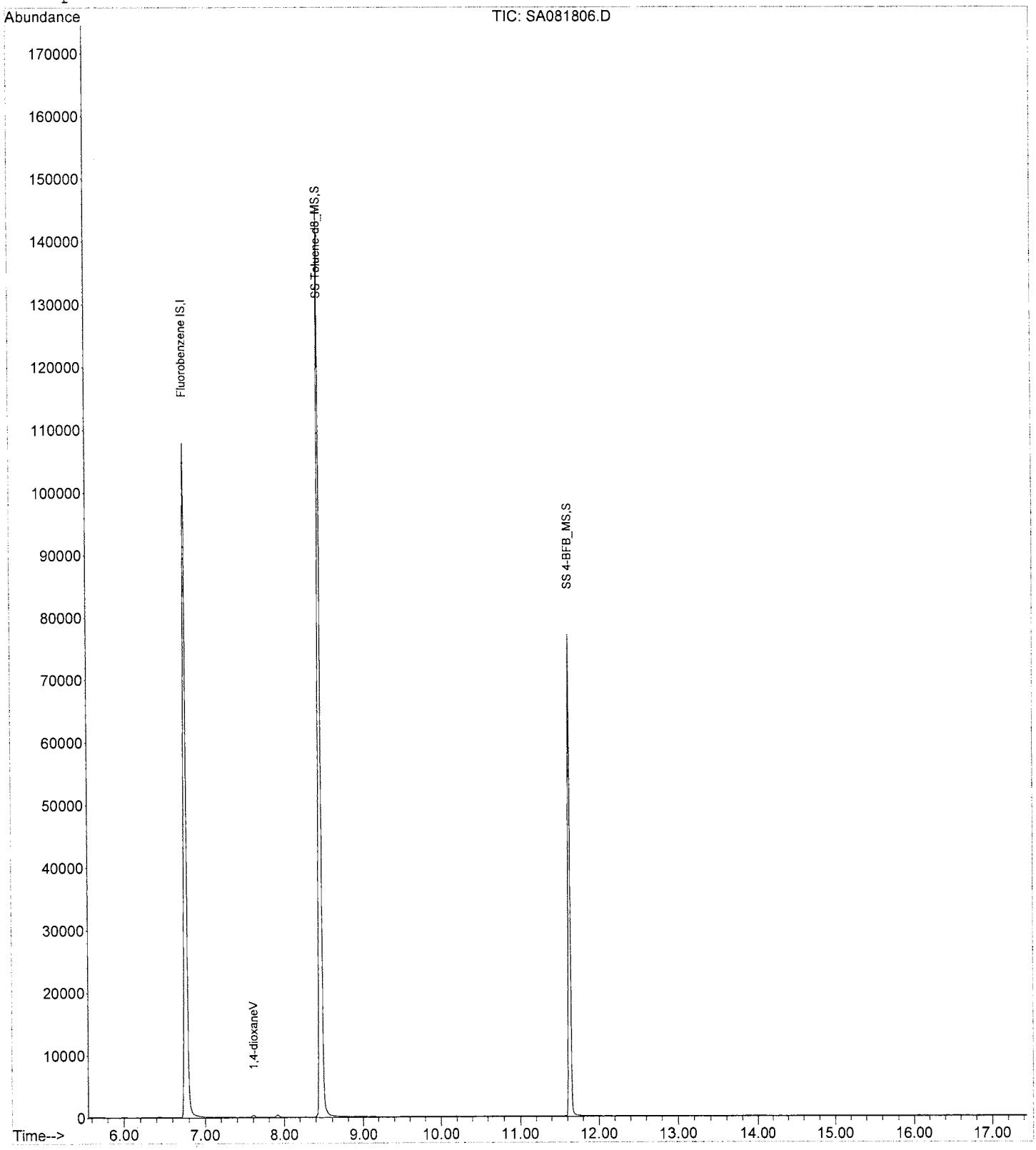
(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081806.D 2SIM0510.M Mon Aug 19 10:49:10 2013 Page 1

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Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081806.D Vial: 6
Acq On : 18 Aug 2013 4:35 pm Operator: VG
Sample : 123529.18 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081807.D Vial: 7
Acq On : 18 Aug 2013 5:24 pm Operator: VG
Sample : 123529.19 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:15 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	197612	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	188943	9.21	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.11%			
4) SS 4-BFB_MS	11.63	95	72075	9.81	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	4387	5.290	ug/L	96

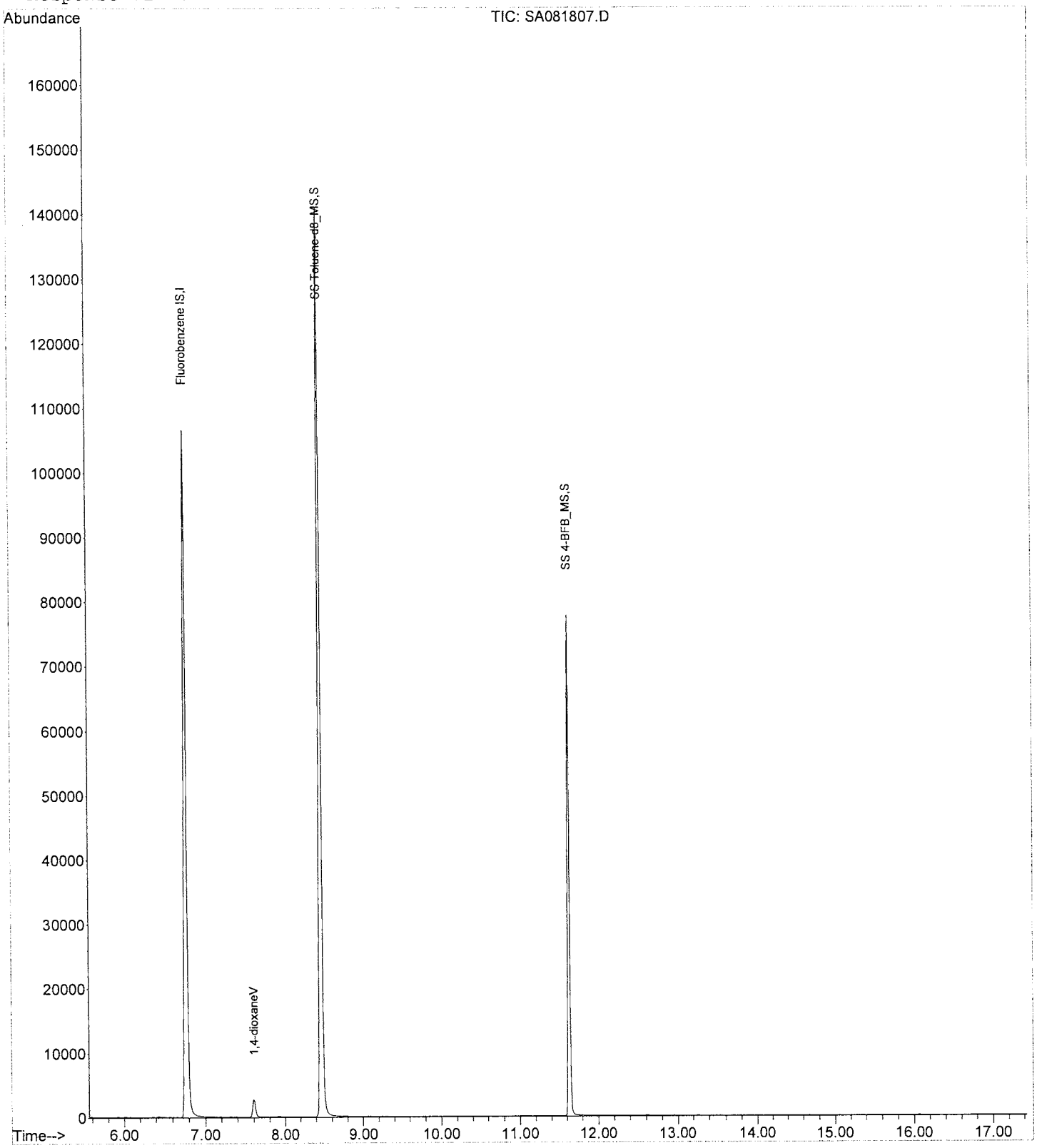
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081807.D 2SIM0510.M Mon Aug 19 10:49:16 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081807.D Vial: 7
Acq On : 18 Aug 2013 5:24 pm Operator: VG
Sample : 123529.19 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081808.D Vial: 8
Acq On : 18 Aug 2013 6:14 pm Operator: VG
Sample : 123529.20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:20 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	195604	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	188175	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.68%			
4) SS 4-BFB_MS	11.63	95	72613	9.98	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.84%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	154641	188.381	ug/L	83

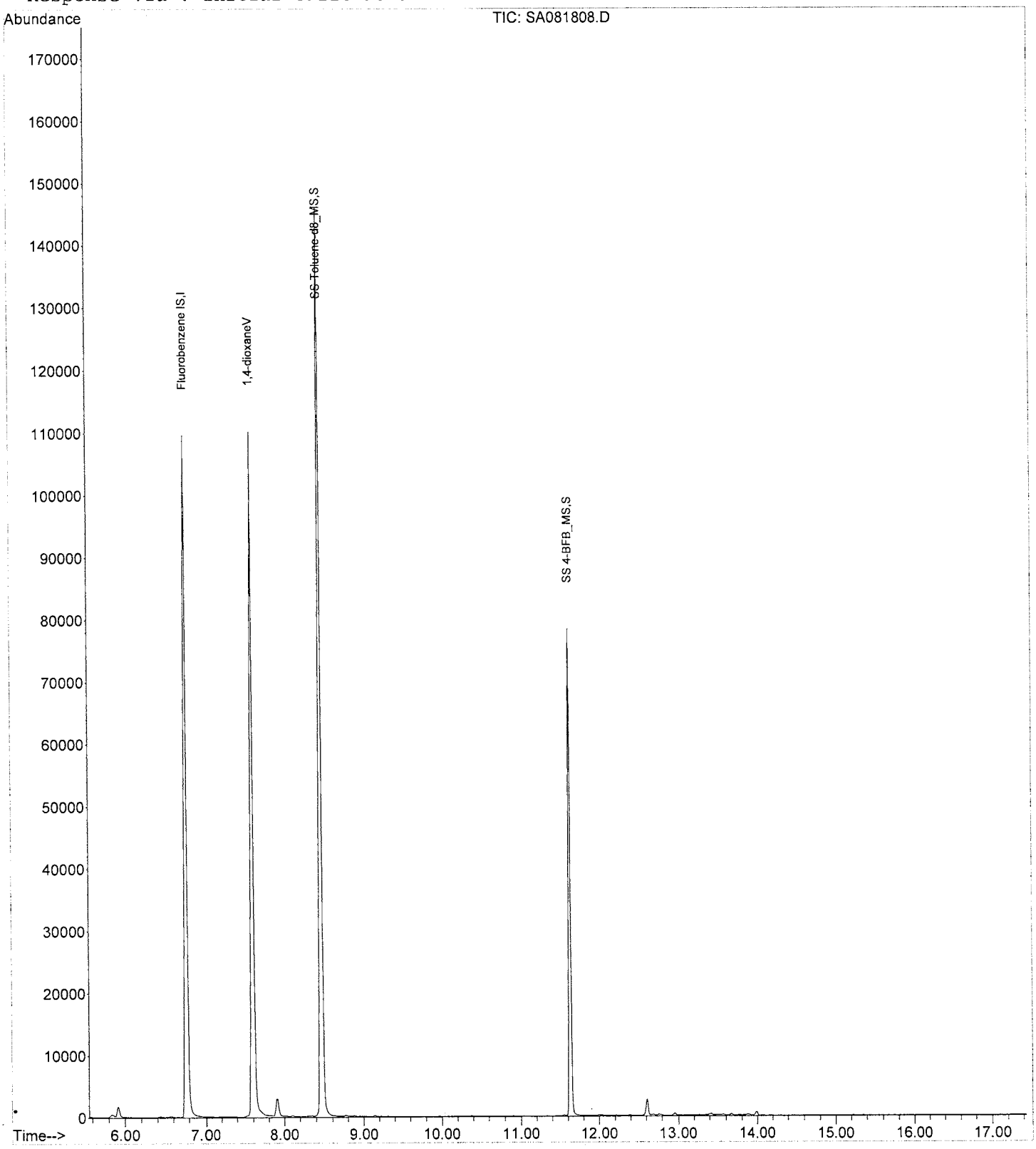
Ran X100
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081808.D Vial: 8
Acq On : 18 Aug 2013 6:14 pm Operator: VG
Sample : 123529.20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081809.D Vial: 9
Acq On : 18 Aug 2013 7:03 pm Operator: VG
Sample : 123529.21 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:23 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	192613	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	196379	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.22%			
4) SS 4-BFB_MS	11.63	95	72513	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.25%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	138042	170.772	ug/L	85

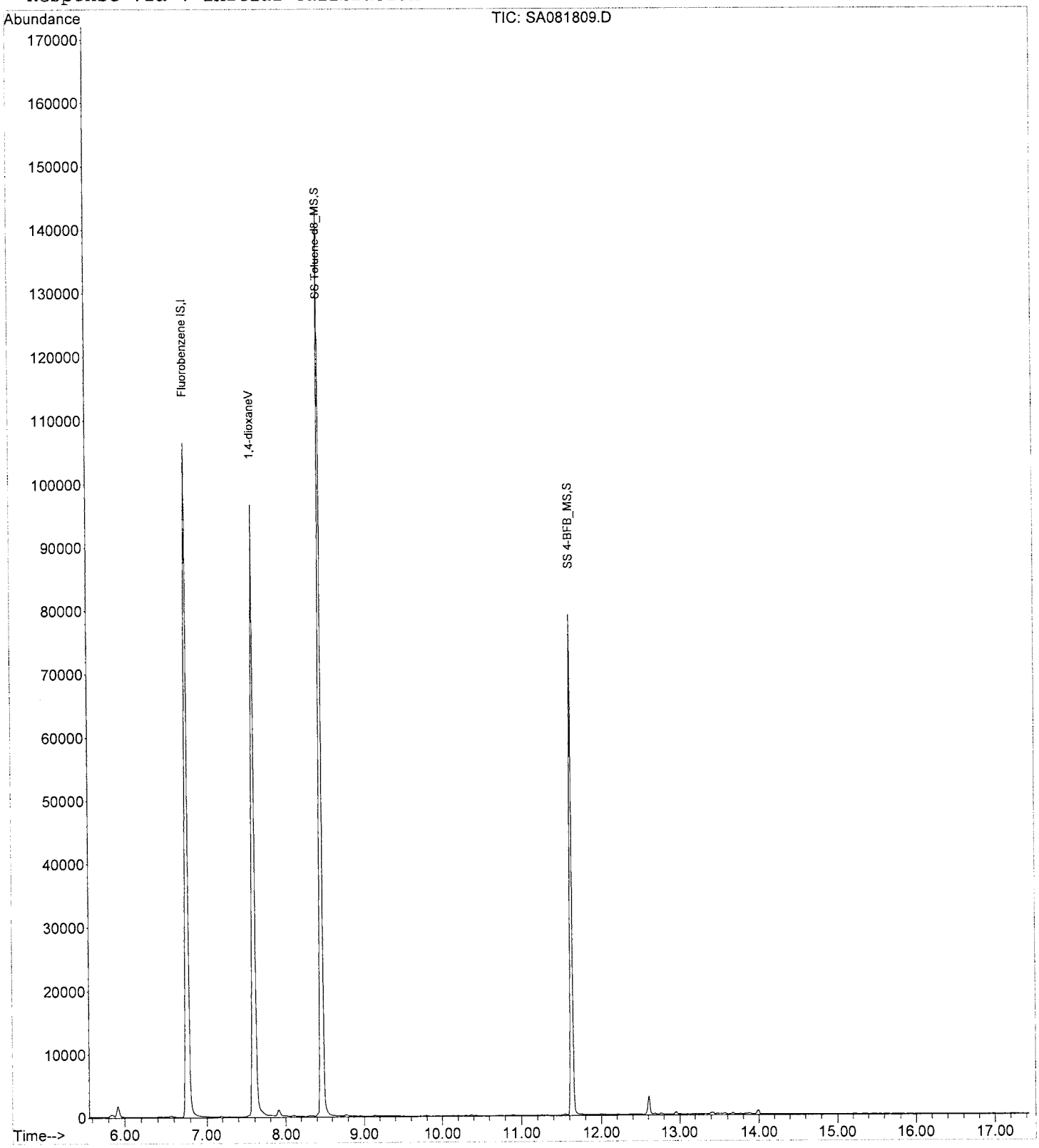
Rerun X100
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081809.D Vial: 9
Acq On : 18 Aug 2013 7:03 pm Operator: VG
Sample : 123529.21 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081810.D Vial: 10
Acq On : 18 Aug 2013 7:53 pm Operator: VG
Sample : 123529.22 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:26 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	182812	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	186008	9.80	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.02%			
4) SS 4-BFB_MS	11.62	95	68714	10.11	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	147303	191.998	ug/L	99

Norm X100

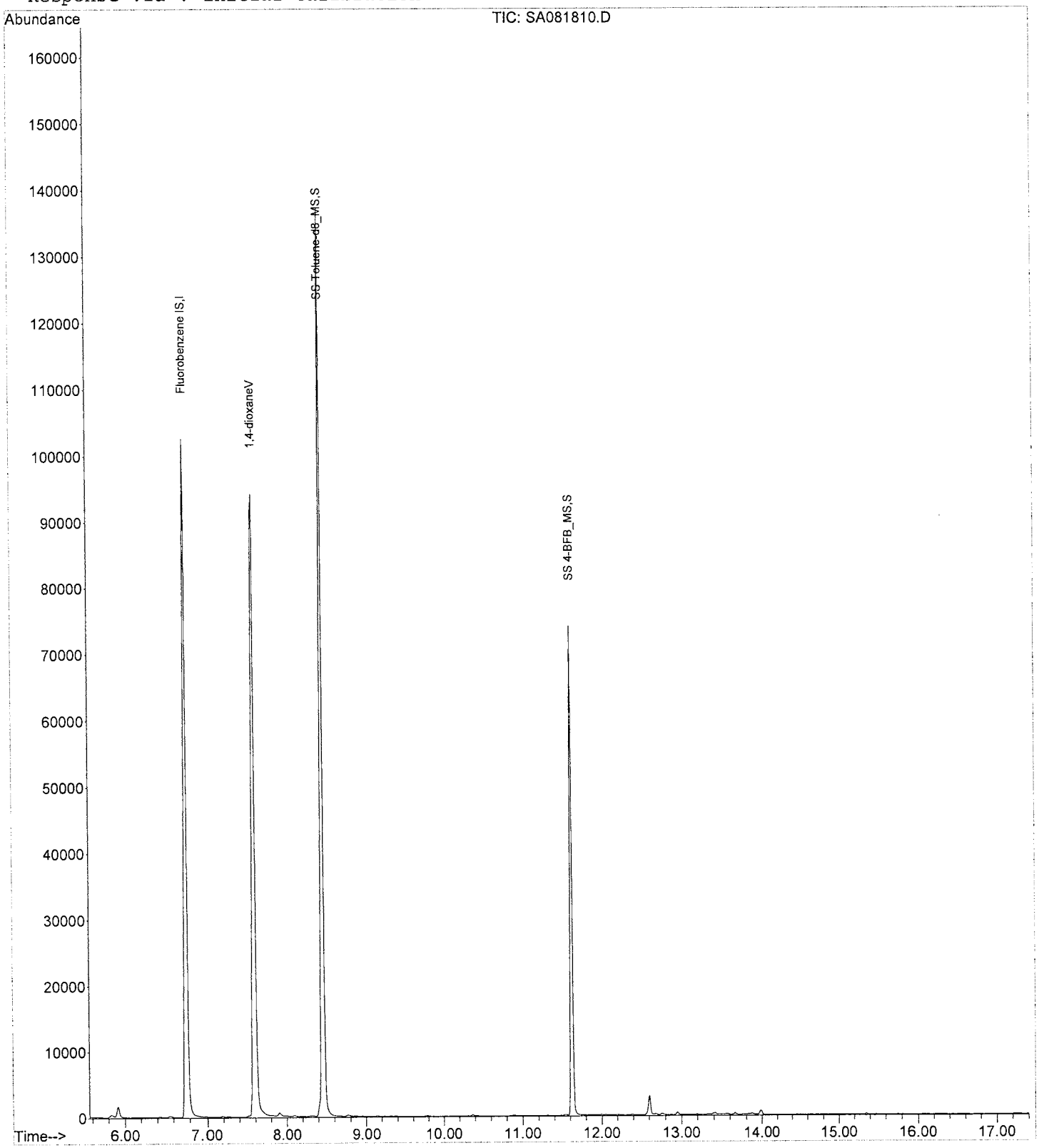
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081810.D Vial: 10
Acq On : 18 Aug 2013 7:53 pm Operator: VG
Sample : 123529.22 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081811.D Vial: 11
Acq On : 18 Aug 2013 8:44 pm Operator: VG
Sample : 123529.23 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:29 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	180947	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	186286	9.92	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.18%		
4) SS 4-BFB_MS		11.62	95	69439	10.32	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	103.21%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	140790	185.400	ug/L	98

Rerun X100
8/19/13

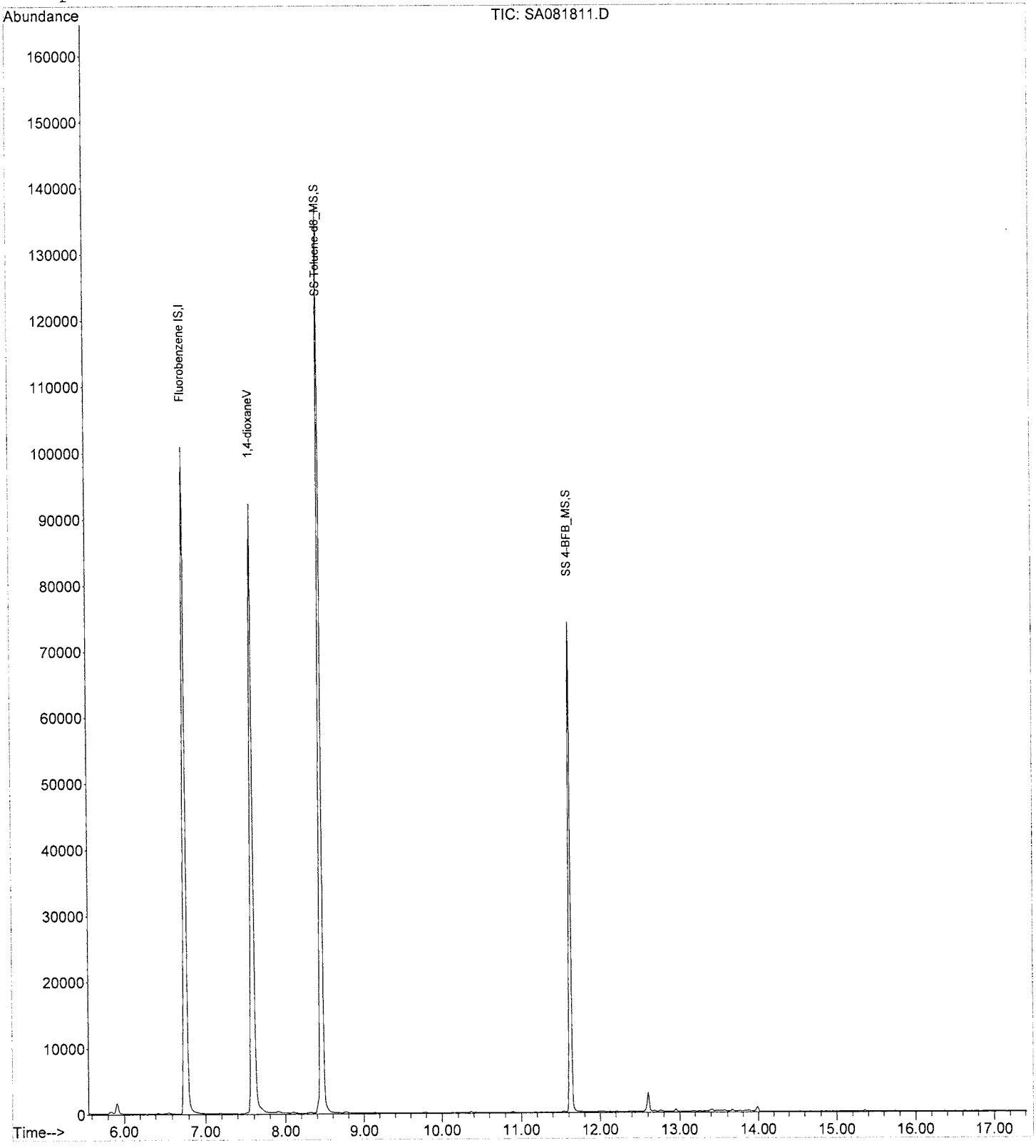
(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081811.D 2SIM0510.M Mon Aug 19 10:49:29 2013 Page 1

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Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081811.D Vial: 11
Acq On : 18 Aug 2013 8:44 pm Operator: VG
Sample : 123529.23 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081812.D Vial: 12
Acq On : 18 Aug 2013 9:36 pm Operator: VG
Sample : 123529.24 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	185395	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	185114	9.62	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.19%			
4) SS 4-BFB_MS	11.62	95	69041	10.02	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.15%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.60	88	1653	2.125	ug/L	76

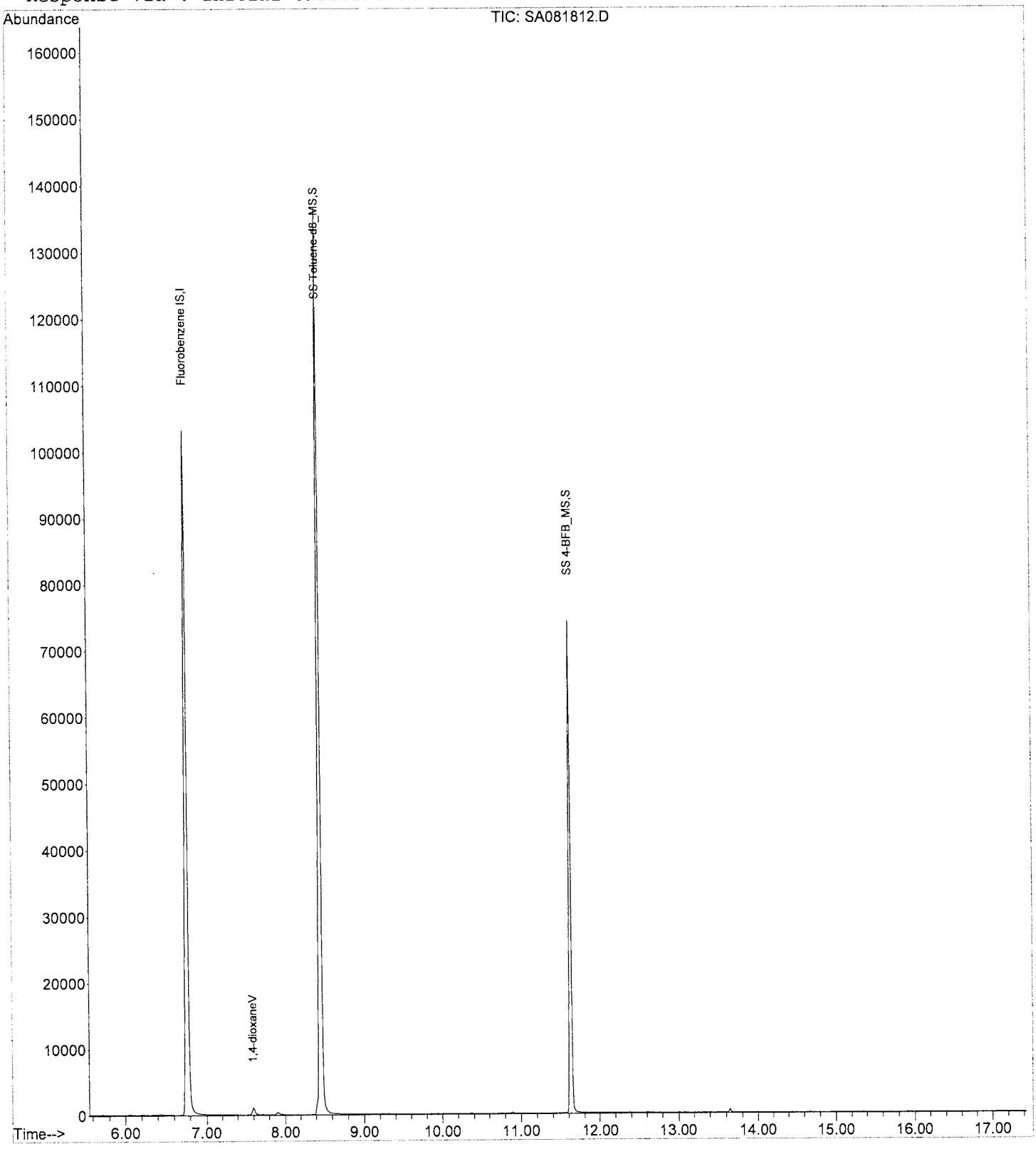
Lorna C.O. 8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081812.D 2SIM0510.M Mon Aug 19 10:49:32 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081812.D Vial: 12
Acq On : 18 Aug 2013 9:36 pm Operator: VG
Sample : 123529.24 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081813.D Vial: 13
Acq On : 18 Aug 2013 10:26 pm Operator: VG
Sample : 123529.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:35 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	183245	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	176567	9.28	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.83%			
4) SS 4-BFB_MS	11.62	95	69244	10.16	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	109	0.142	ug/L	98

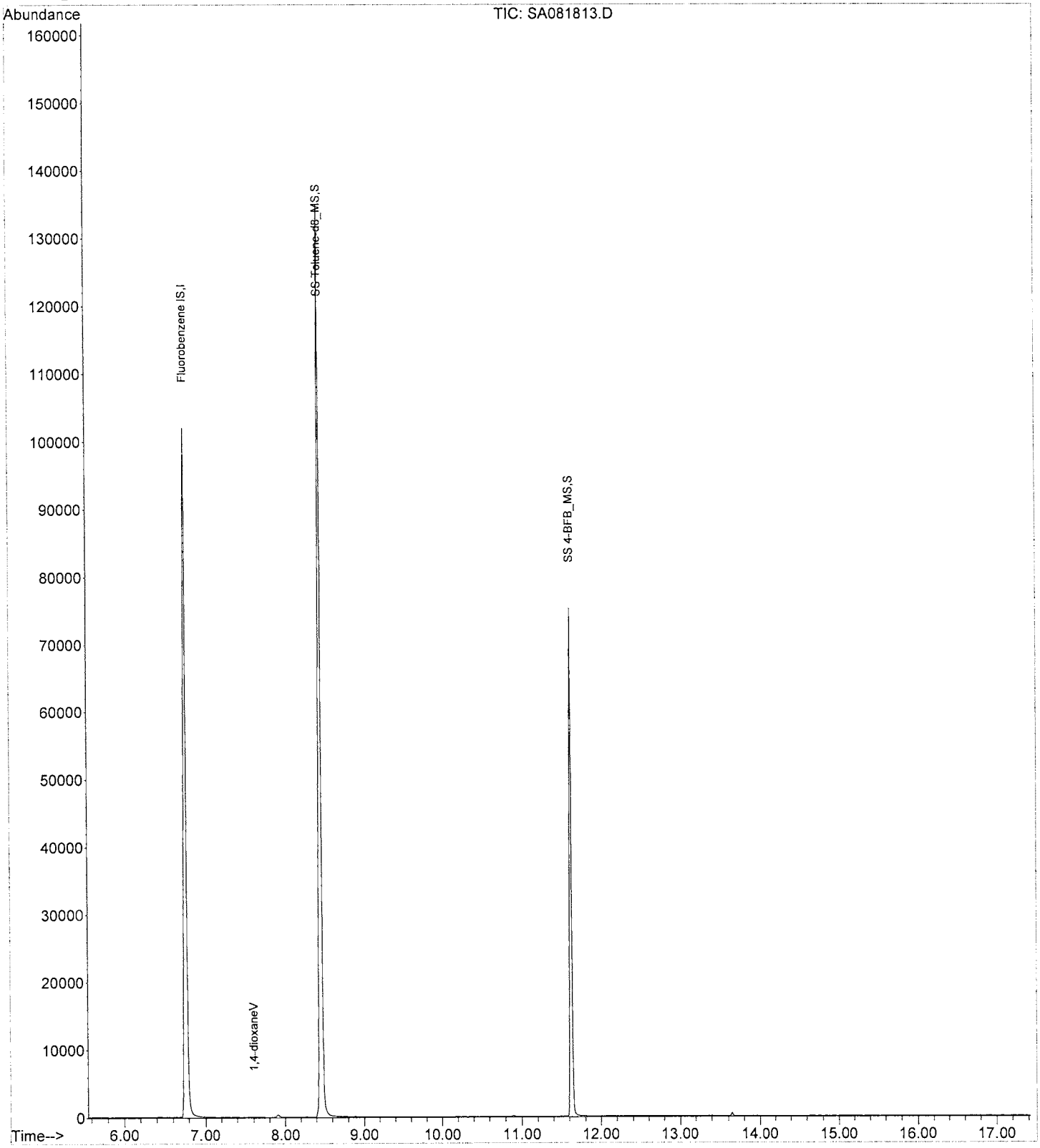
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081813.D 2SIM0510.M Mon Aug 19 10:49:35 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081813.D Vial: 13
Acq On : 18 Aug 2013 10:26 pm Operator: VG
Sample : 123529.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081814.D Vial: 14
Acq On : 18 Aug 2013 11:18 pm Operator: VG
Sample : 123529.27 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:38 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	180864	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	183271	9.76	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	97.62%		
4) SS 4-BFB_MS		11.63	95	67706	10.07	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	100.68%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	25436	33.511	ug/L	87

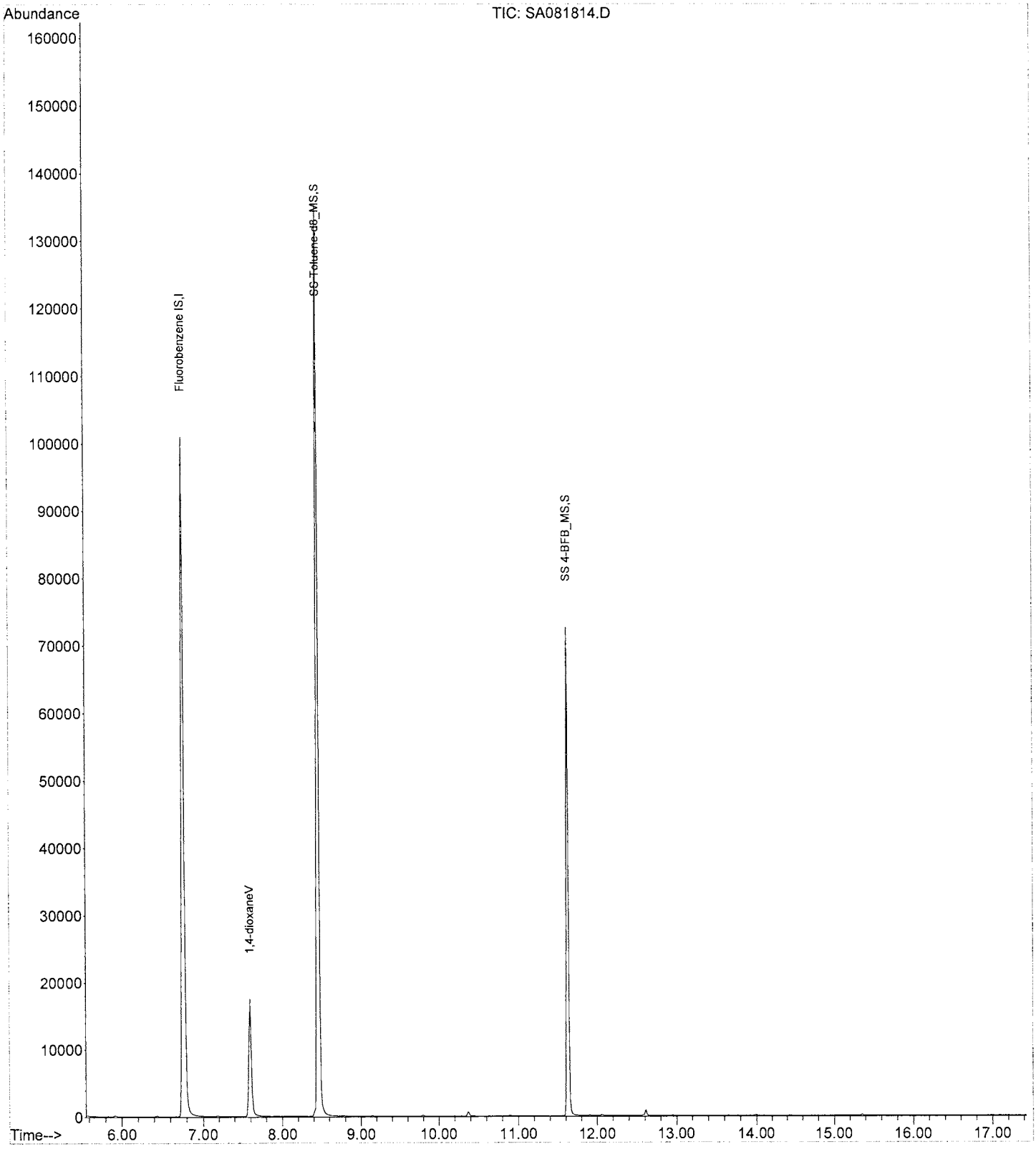
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081814.D 2SIM0510.M Mon Aug 19 10:49:38 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081814.D Vial: 14
Acq On : 18 Aug 2013 11:18 pm Operator: VG
Sample : 123529.27 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081815.D Vial: 15
Acq On : 19 Aug 2013 12:09 am Operator: VG
Sample : 123529.26 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:41 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	182428	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	184845	9.76	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.61%			
4) SS 4-BFB_MS	11.63	95	69301	10.22	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.16%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	357	0.466	ug/L	96

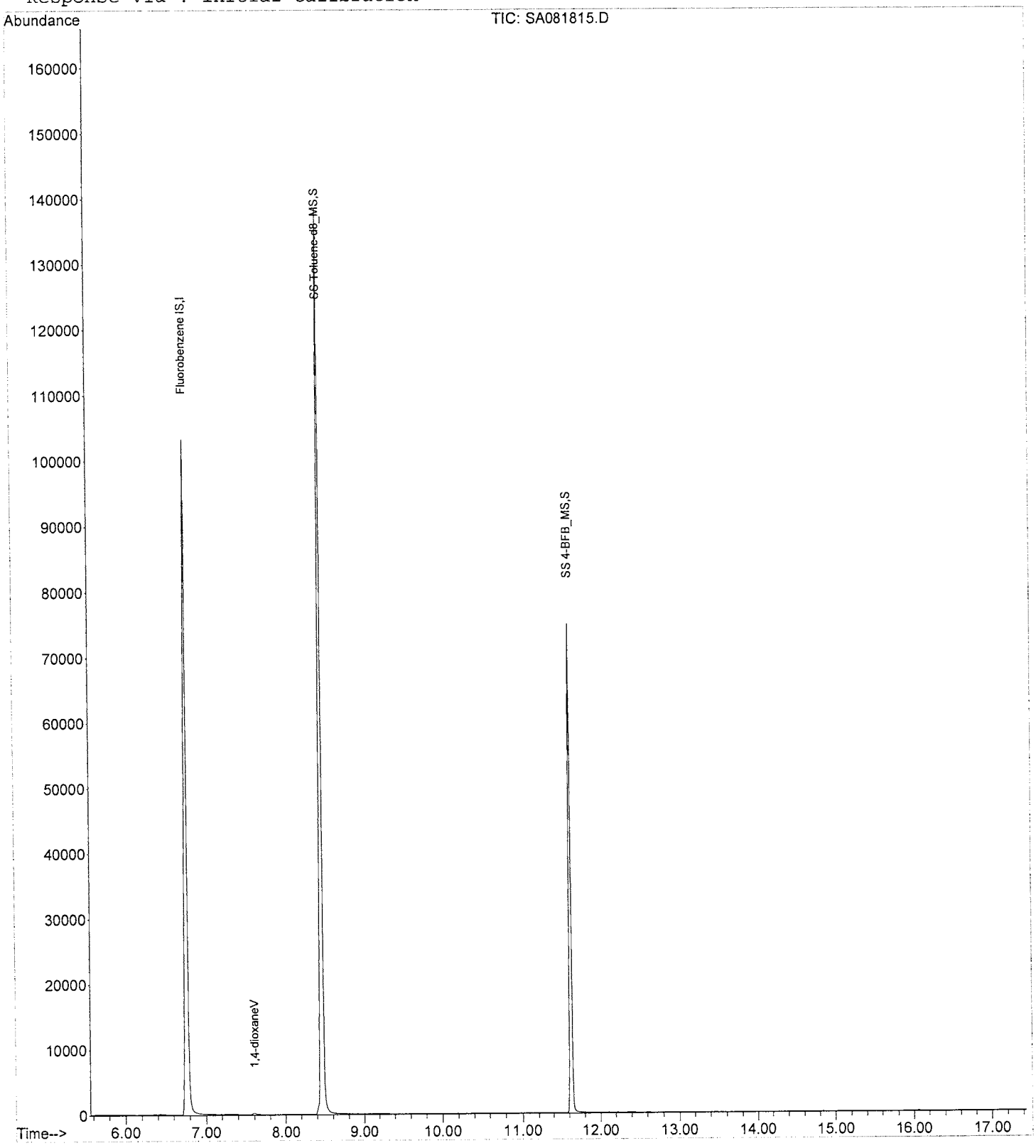
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081815.D Vial: 15
Acq On : 19 Aug 2013 12:09 am Operator: VG
Sample : 123529.26 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:49 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

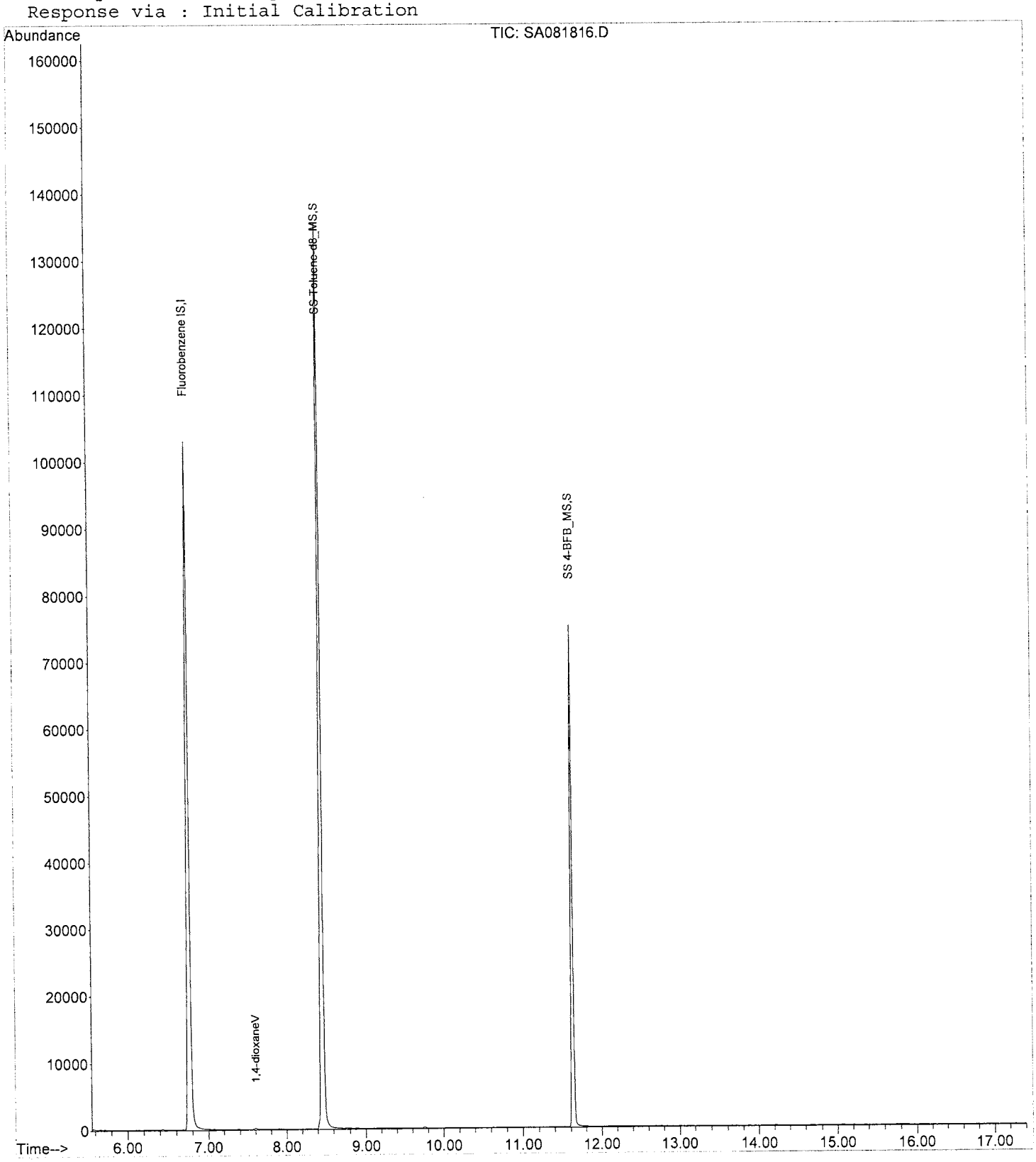
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	183453	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	175779	9.23	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	92.31%		
4) SS 4-BFB_MS		11.63	95	69534	10.19	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.93%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	252	0.327	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



VOAMS2 Analysis Run Log

IS/SS ID= V- 4074
Standard ID= V- 4040
LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 8/18/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA081801	BFB		✓		x1	VOC MS1			
2	2	STD5					VOC SIM	2SIM510		
3	3	LCS5					VOC			
4	4	LCSD5					VOC			
5	5	Blank					VOC			
6	6	123529.18					VOC			
7	7	19					VOC			
8	8	20					VOC			
9	9	21					VOC			
10	10	22					VOC			
11	11	23					VOC			
12	12	24					VOC			
13	13	25					VOC			
14	14	27					VOC			
15	15	26					VOC			
16	16	STD25					VOC			
17	17	BFB					VOC MS1			
18	18	STD5					VOC SIM			
19	19	LCS5					VOC			
20	20	LCSD5					VOC			
21	21	Blank					VOC			
22	22	123529.36					VOC			
23	23	26					VOC			
24	24	123612.01					VOC			
25	25	02					VOC			
26	26	03					VOC			
27	27	04					VOC			
28	28	05					VOC			
29	29	06					VOC			
30	30	07					VOC			
31	31	08		↓		↓	VOC			
32	32	BFB				x1	VOC MS1			
33	33	STD5					VOC SIM			
34	34	LCS5					VOC			
35	35	LCSD5					VOC			
36	36	Blank					VOC			
37	37	123529.26	✓				VOC			
38	38	14	✓				VOC			
39	39	24	✓			↓	VOC			
40	40	11	✓			x10	VOC			
41	41	12	✓			↓	VOC			
42	42	13	✓	↓		↓	VOC			

Samples removed from autosampler, order verified by VG 8/19/13

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VG

Date: 8/18/13 (cont.)

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
43	SA081843	123524.20	✓	✓		X10	VOCSIM	2SIM0510		
44	44	21	✓	✓		↓	VOC ↓			
45	45	22	✓	✓		↓	VOC ↓			
46	46	23	✓	✓		↓	VOC ↓			
							VOC			
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Samples removed from autosampler, order verified by [signature] 8/19/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1813\SA081817.D
Tune Time : 19 Aug 2013 1:51 am

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1813\SA081818.D

				177889
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA081818.D	STD5	93	102	177889
SA081819.D	LCS5	94	103	179393
SA081820.D	LCSD5	98	103	188018
SA081821.D	BLANK	93	103	192679
SA081822.D	123529.28	98	103	192144
SA081823.D	123529.29	94	103	192321
SA081824.D	123612.01	94	103	186656
SA081825.D	123612.02	99	103	187908
SA081826.D	123612.03	100	104	186583
SA081827.D	123612.04	100	103	191387
SA081828.D	123612.05	105	106	188746
SA081829.D	123612.06	103	105	186767
SA081830.D	123612.07	94	104	188822
SA081831.D	123612.08	95	105	187186

t - fails 12hr time check * - fails criteria

Created: Mon Aug 19 14:19:44 2013 VOAMS2

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:49 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

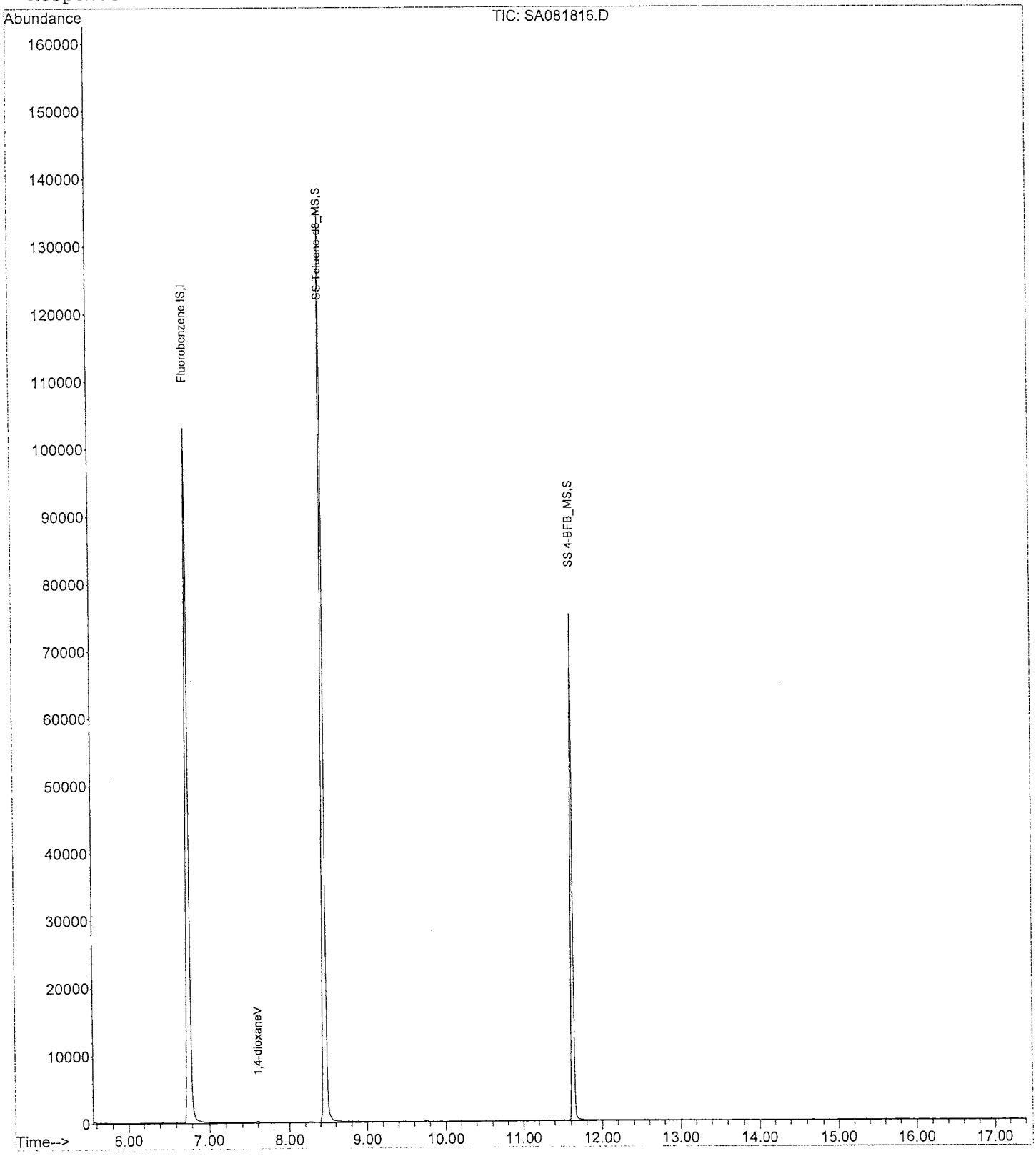
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	183453	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	175779	9.23	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.31%			
4) SS 4-BFB_MS	11.63	95	69534	10.19	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.93%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	252	0.327	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

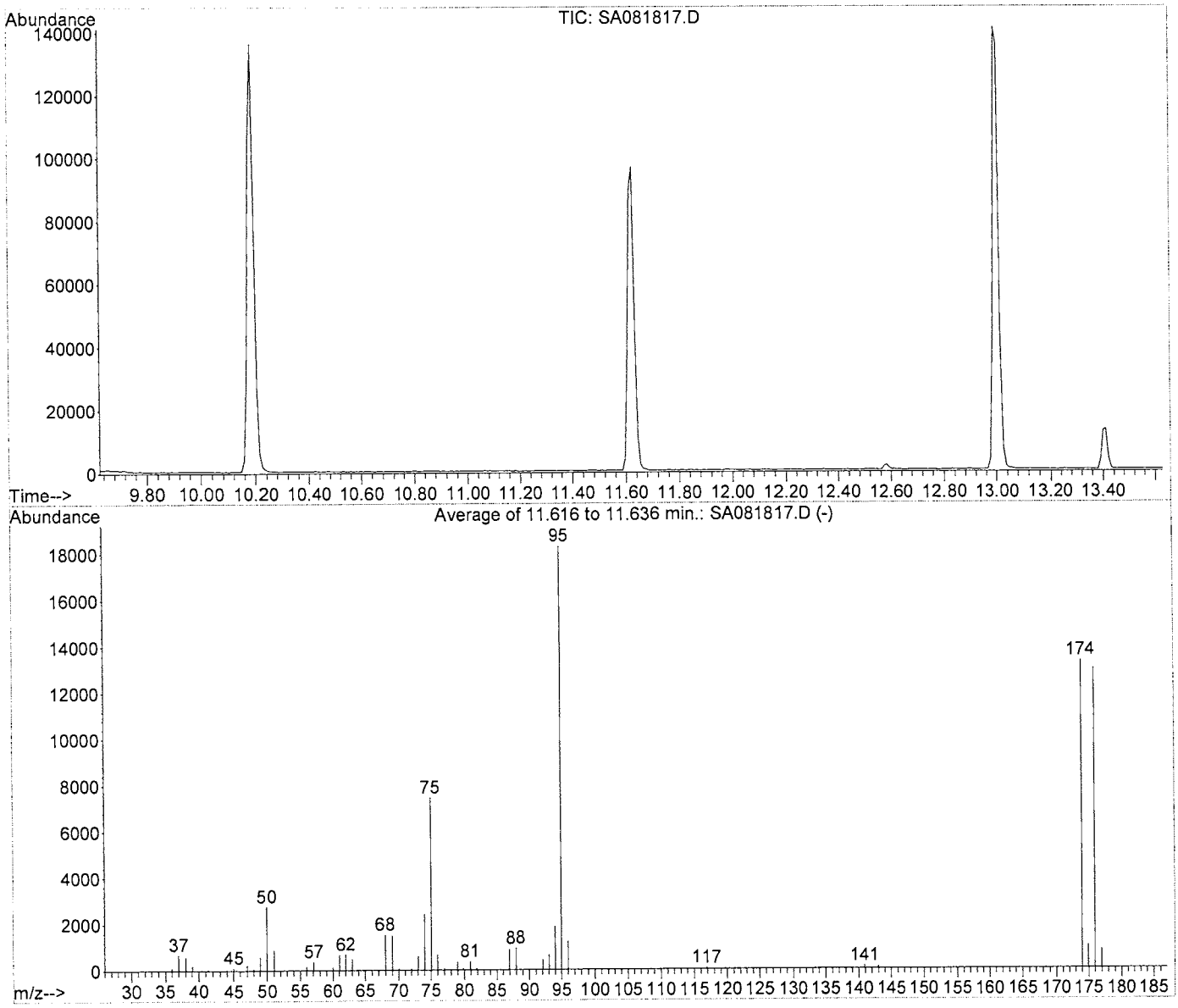
Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081817.D Vial: 17
Acq On : 19 Aug 2013 1:51 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.616 to 11.636 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	2770	PASS
75	95	30	60	40.8	7463	PASS
95	95	100	100	100.0	18304	PASS
96	95	5	9	6.8	1238	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.8	13331	PASS
175	174	5	9	7.4	981	PASS
176	174	95	101	97.3	12974	PASS
177	176	5	9	6.2	808	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081818.D Vial: 18
Acq On : 19 Aug 2013 2:43 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	112	-0.01
2		1,4-dioxaneV	5.000	5.870	-17.4	131	-0.01
3	S	SS Toluene-d8_MS	10.000	9.252	7.5	102	-0.01
4	S	SS 4-BFB_MS	10.000	10.223	-2.2	115	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 11:58:59 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081818.D Vial: 18
Acq On : 19 Aug 2013 2:43 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47:40 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

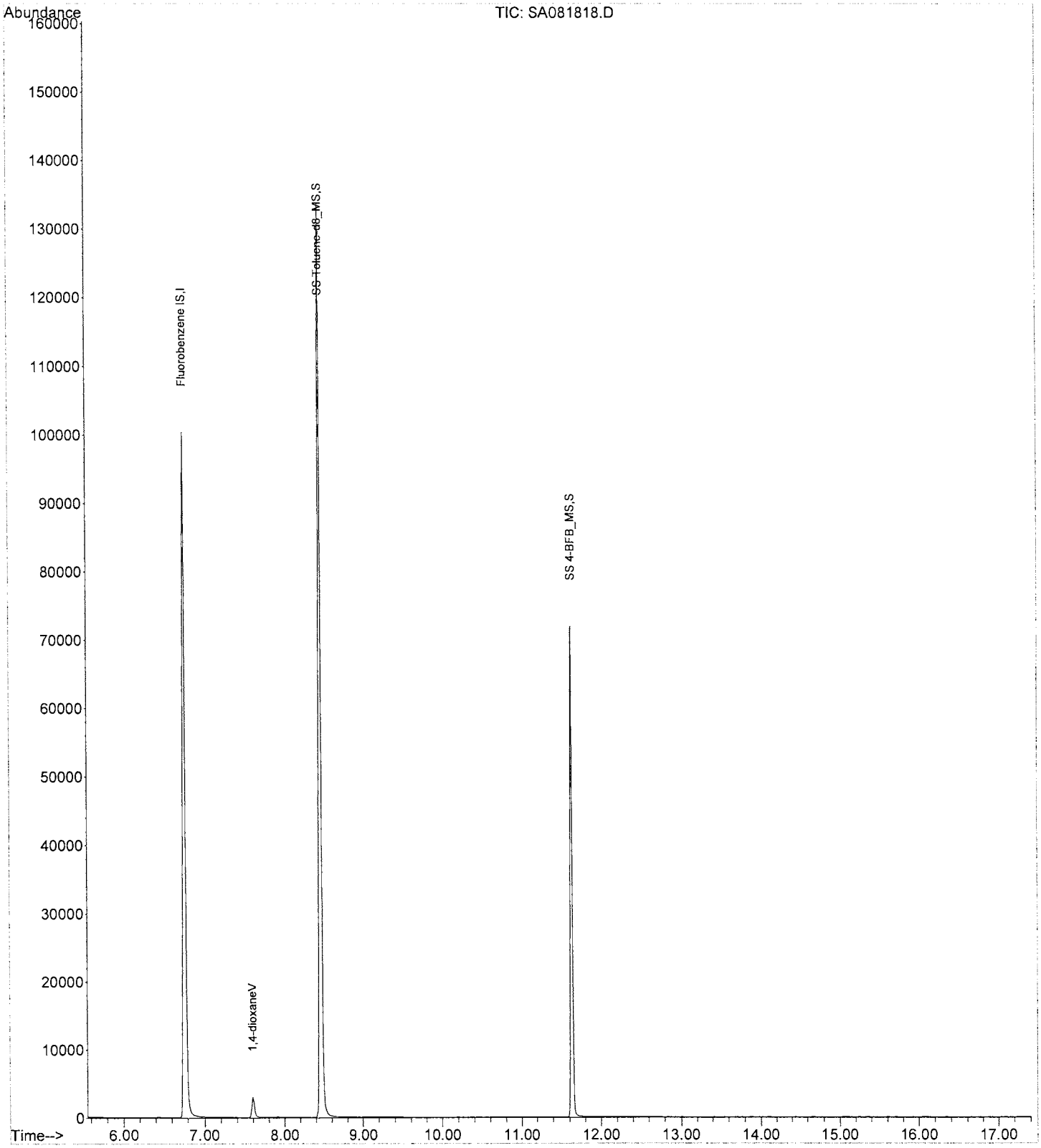
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	177889	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	170839	9.25	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.52%			
4) SS 4-BFB_MS	11.63	95	67619	10.22	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.23%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	4382	5.870	ug/L	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081818.D Vial: 18
Acq On : 19 Aug 2013 2:43 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081819.D Vial: 19
Acq On : 19 Aug 2013 3:35 am Operator: VG
Sample : LCSaA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47:52 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

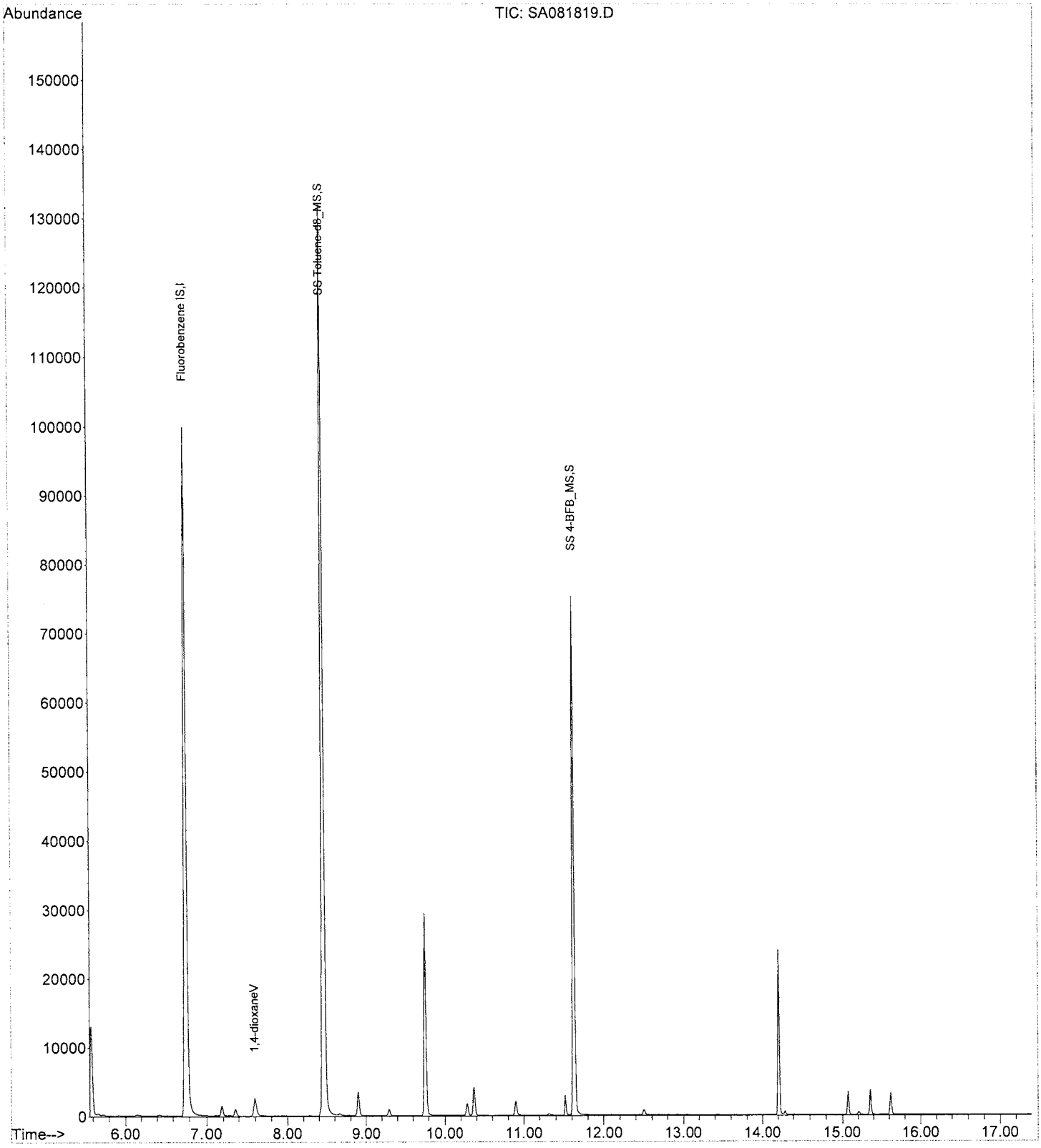
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	179393	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	175269	9.41	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.12%			
4) SS 4-BFB_MS	11.63	95	68960	10.34	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3599m	4.780	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081819.D Vial: 19
Acq On : 19 Aug 2013 3:35 am Operator: VG
Sample : LCSaA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 12:23 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081820.D Vial: 20
Acq On : 19 Aug 2013 4:26 am Operator: VG
Sample : LCSDA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:48:02 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

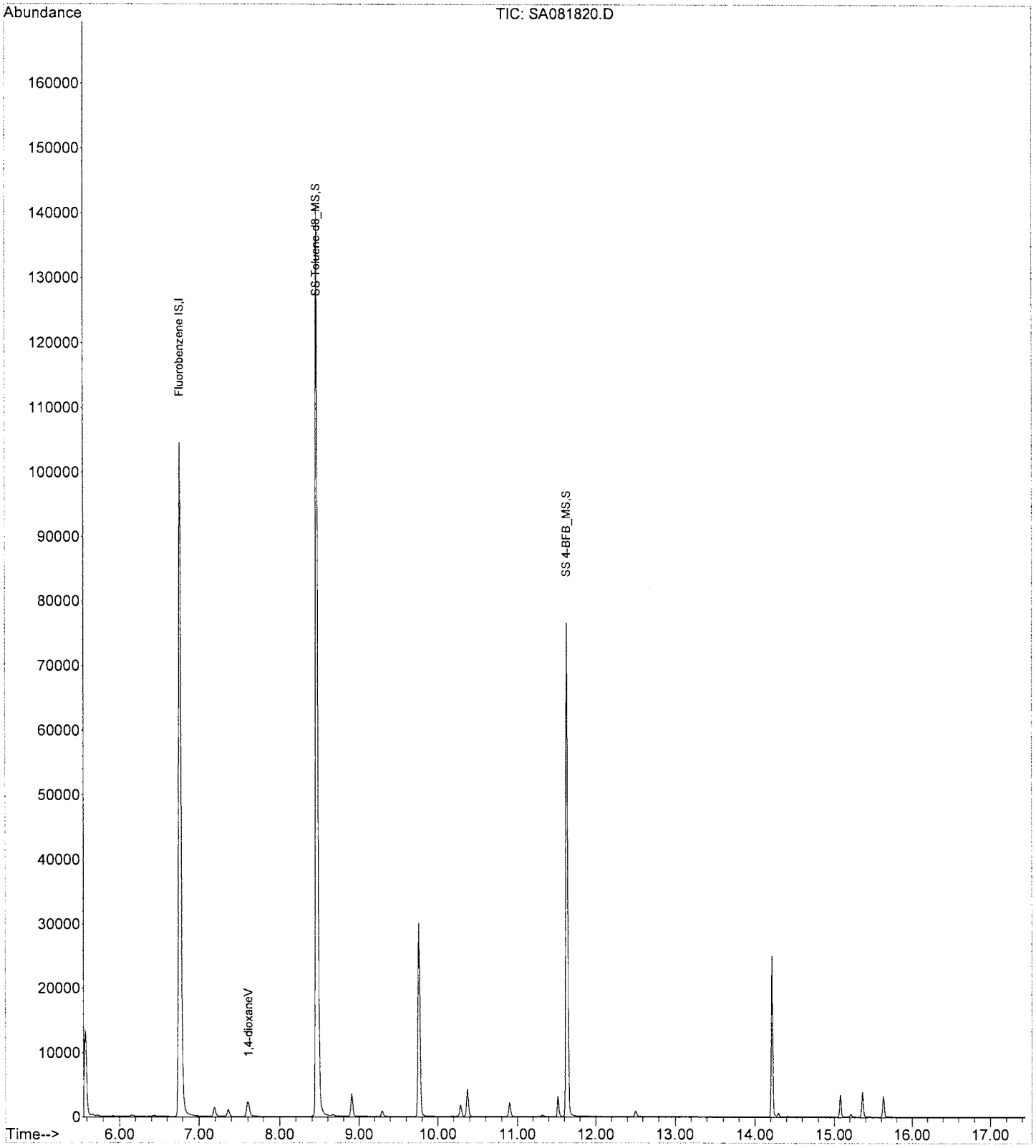
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	188018	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	190791	9.78	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	97.76%		
4) SS 4-BFB_MS		11.63	95	71765	10.27	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	102.65%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	3350	4.246	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081820.D Vial: 20
Acq On : 19 Aug 2013 4:26 am Operator: VG
Sample : LCSDA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081821.D Vial: 21
Acq On : 19 Aug 2013 5:16 am Operator: VG
Sample : BlnkA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:48:12 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

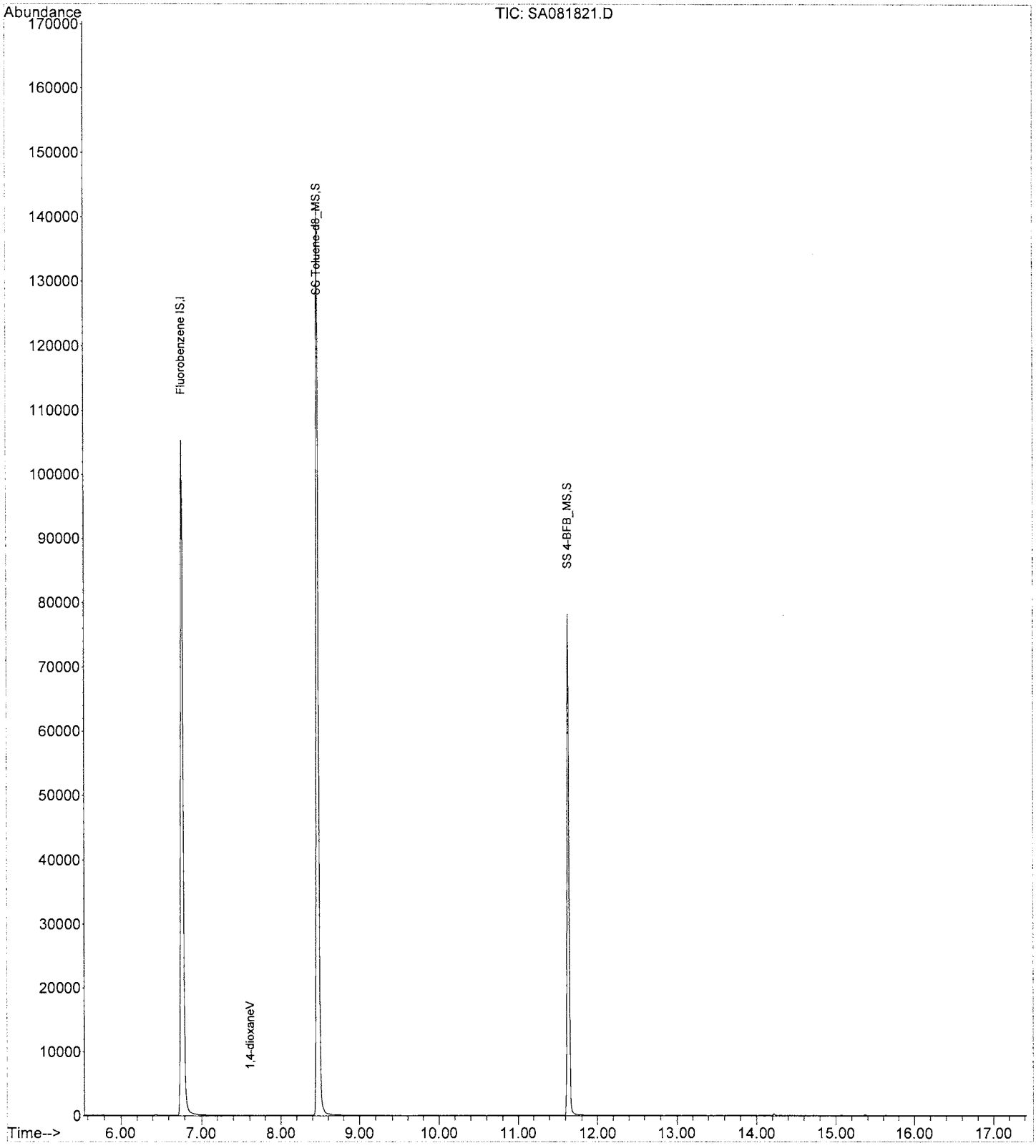
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	192679	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	186250	9.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.12%			
4) SS 4-BFB_MS	11.64	95	73635	10.28	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.78%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	94	0.116	ug/L	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081821.D Vial: 21
Acq On : 19 Aug 2013 5:16 am Operator: VG
Sample : BlnkA081813V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081822.D Vial: 22
Acq On : 19 Aug 2013 6:06 am Operator: VG
Sample : 123529.28 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:44 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	192144	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	196375	9.85	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.46%			
4) SS 4-BFB_MS	11.63	95	73716	10.32	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	~~22570~~ 21614	~~27.989~~ 26.80	ug/L	100

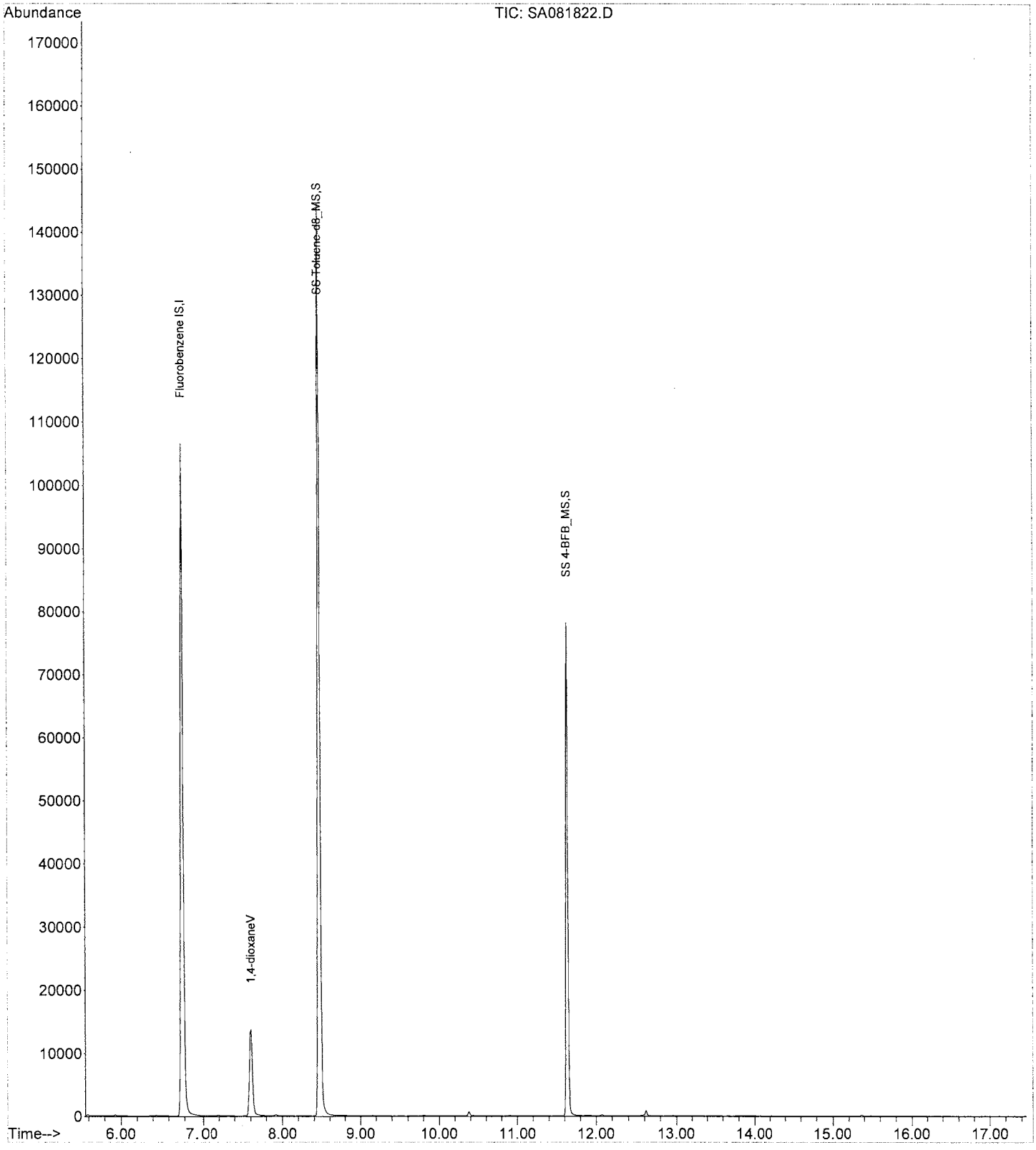
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081822.D 2SIM0510.M Mon Aug 19 10:49:44 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081822.D Vial: 22
Acq On : 19 Aug 2013 6:06 am Operator: VG
Sample : 123529.28 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081823.D Vial: 23
Acq On : 19 Aug 2013 6:55 am Operator: VG
Sample : 123529.29 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:49:47 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	192321	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	187987	9.42	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.17%			
4) SS 4-BFB_MS	11.63	95	73861	10.33	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.29%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	21613	26.778	ug/L	100

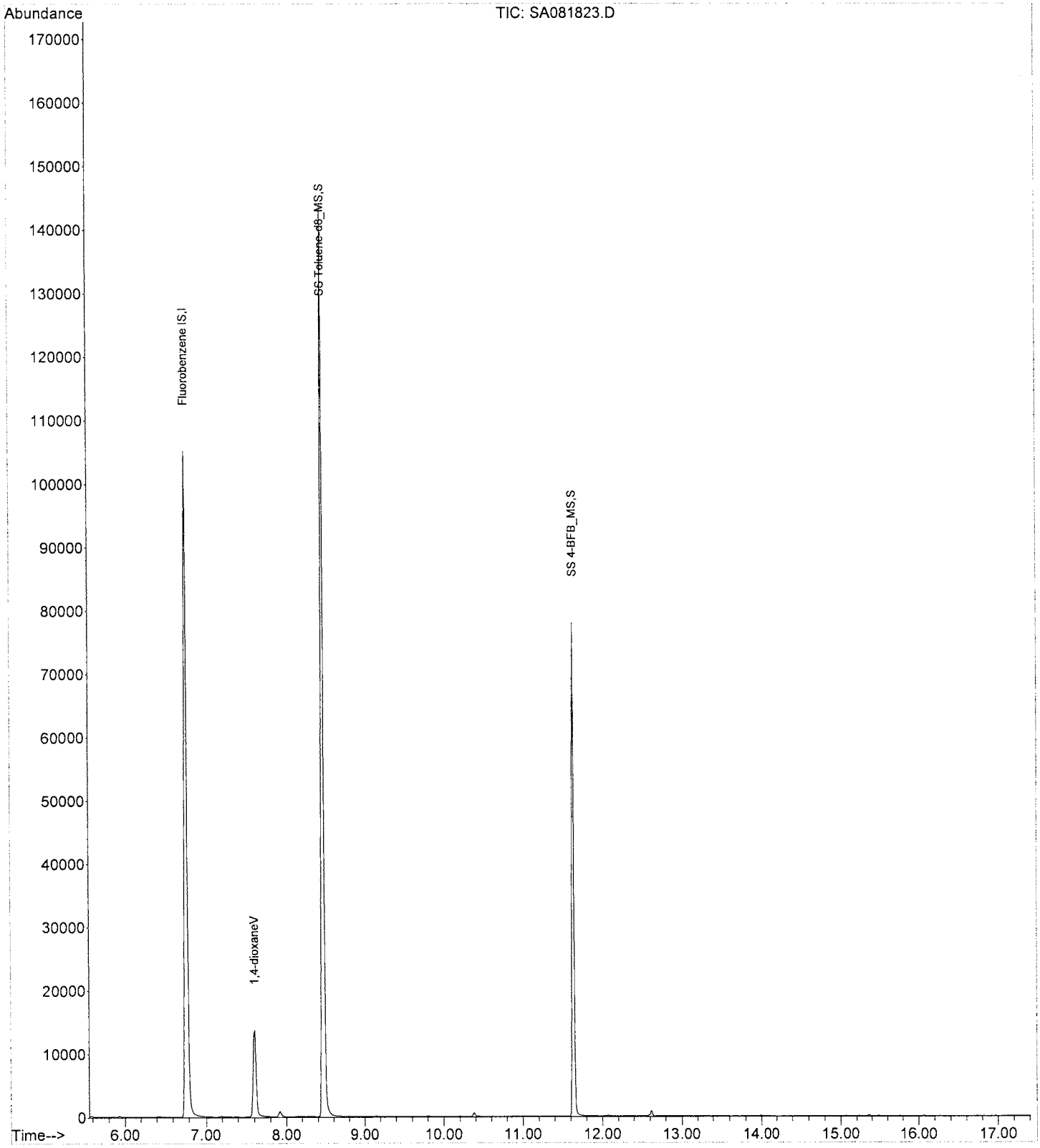
8/19/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081823.D Vial: 23
Acq On : 19 Aug 2013 6:55 am Operator: VG
Sample : 123529.29 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:47 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



IS/SS ID= V- 4074

Standard ID= V- 4040

Analyst: VG

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 8/18/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA081801	BRB		✓		x1	VOC MSI			
2	2	STD5					VOC SIM	2SIM5D		
3	3	LCS5					VOC			
4	4	LCSD5					VOC			
5	5	Blank					VOC			
6	6	123529.18					VOC			
7	7	19					VOC			
8	8	20					VOC			
9	9	21					VOC			
10	10	22					VOC			
11	11	23					VOC			
12	12	24					VOC			
13	13	25					VOC			
14	14	27					VOC			
15	15	26					VOC			
16	16	STD05					VOC			
17	17	BRB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS5					VOC			
20	20	LCSD5					VOC			
21	21	Blank					VOC			
22	22	123529.28					VOC			
23	23	26					VOC			
24	24	123612.01					VOC			
25	25	02					VOC			
26	26	03					VOC			
27	27	04					VOC			
28	28	05					VOC			
29	29	06					VOC			
30	30	07					VOC			
31	31	08		↓		↓	VOC			
32	32	BRB				x1	VOC MSI			
33	33	STD5					VOC SIM			
34	34	LCS5					VOC			
35	35	LCSD5					VOC			
36	36	Blank					VOC			
37	37	123529.26	✓				VOC			
38	38	14	✓				VOC			
39	39	24	✓			↓	VOC			
40	40	11	✓			x10	VOC			
41	41	12	✓			↓	VOC			
42	42	13	✓	↓		↓	VOC			

Samples removed from autosampler, order verified by VG 8/19/13

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4011

Analyst: VG

Date: 8/18/13 (Cont.)

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
43	SA081843	1235529.20	✓	✓		X100	VOC SIM	2SIM0510		
44	44	21	✓	✓		↓	VOC ↓			
45	45	22	✓	✓		↓	VOC ↓			
46	46	23	✓	✓		↓	VOC ↓			
							VOC			
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							VOC			

Samples removed from autosampler, order verified by [signature] 8/19/13 [signature] 8/20

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG1813\SA081832.D
Tune Time : 19 Aug 2013 2:13 pm

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG1813\SA081833.D

185613

File	Sample	Surrogate Recovery %		Internal Standard Responses
SA081833.D	STD5	95	104	185613
SA081834.D	LCS5	100	104	182761
SA081835.D	LCSD5	99	105	182612
SA081836.D	BLANK	100	105	183285
SA081837.D	123529.26	95	106	182102
SA081838.D	123529.14	94	106	178963
SA081839.D	123529.24	102	109	160127
SA081840.D	123529.11	96	110	163656
SA081841.D	123529.12	96	109	164330
SA081842.D	123529.13	96	111	163068
SA081843.D	123529.20	97	111	162863
SA081844.D	123529.21	100	111	163420
SA081845.D	123529.22	98	113	160722
SA081846.D	123529.23	101	111	159997

t - fails 12hr time check * - fails criteria

Created: Tue Aug 20 08:59:18 2013 VOAMS2

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:46:49 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

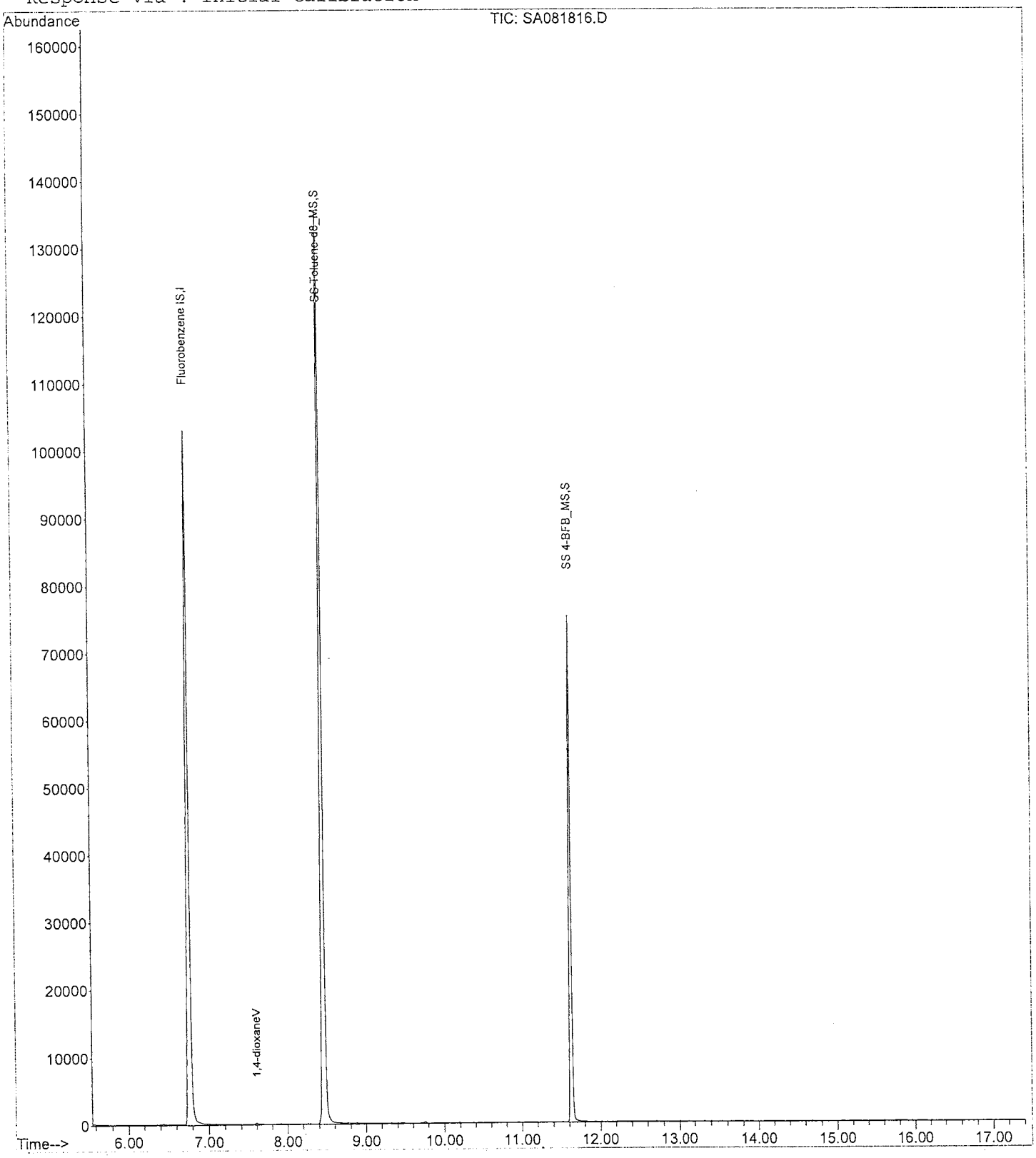
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	183453	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	175779	9.23	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.31%			
4) SS 4-BFB_MS	11.63	95	69534	10.19	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.93%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	252	0.327	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

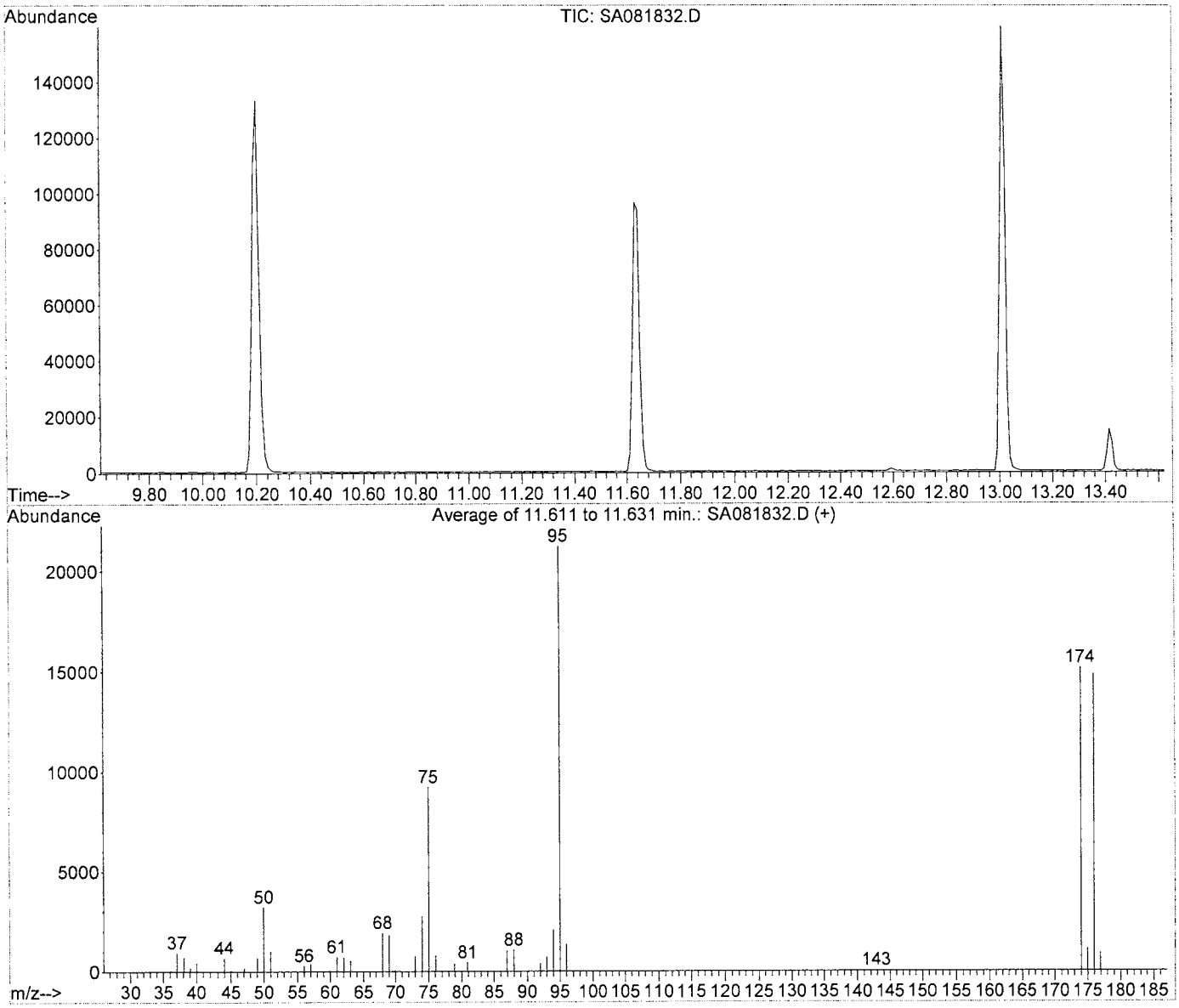
Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081816.D Vial: 16
Acq On : 19 Aug 2013 1:00 am Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 10:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081832.D Vial: 32
Acq On : 19 Aug 2013 2:13 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.611 to 11.631 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	3221	PASS
75	95	30	60	43.5	9239	PASS
95	95	100	100	100.0	21227	PASS
96	95	5	9	6.4	1359	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.4	15165	PASS
175	174	5	9	7.4	1117	PASS
176	174	95	101	97.9	14849	PASS
177	176	5	9	6.1	901	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081833.D Vial: 33
Acq On : 19 Aug 2013 3:01 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	117	0.00
2		1,4-dioxaneV	5.000	4.190	16.2	97	0.00
3	S	SS Toluene-d8_MS	10.000	9.488	5.1	109	0.00
4	S	SS 4-BFB_MS	10.000	10.416	-4.2	122	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 12:43:23 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081833.D Vial: 33
Acq On : 19 Aug 2013 3:01 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 19 15:59:12 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

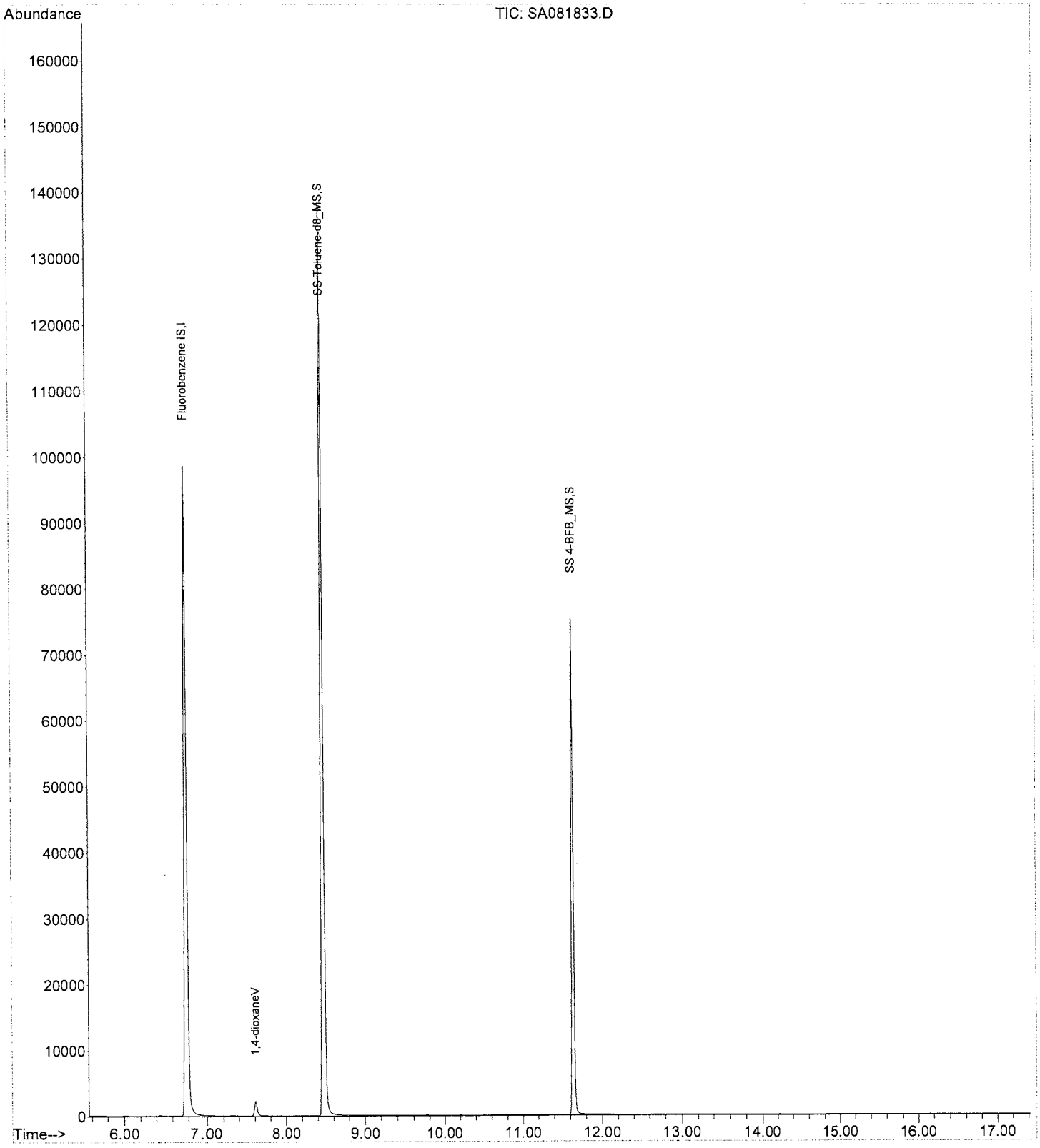
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	185613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	182807	9.49	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.88%			
4) SS 4-BFB_MS	11.64	95	71888	10.42	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.16%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3264m	4.190	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081833.D Vial: 33
Acq On : 19 Aug 2013 3:01 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 9:09 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081834.D Vial: 34
Acq On : 19 Aug 2013 3:49 pm Operator: VG
Sample : LCSaA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:37:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

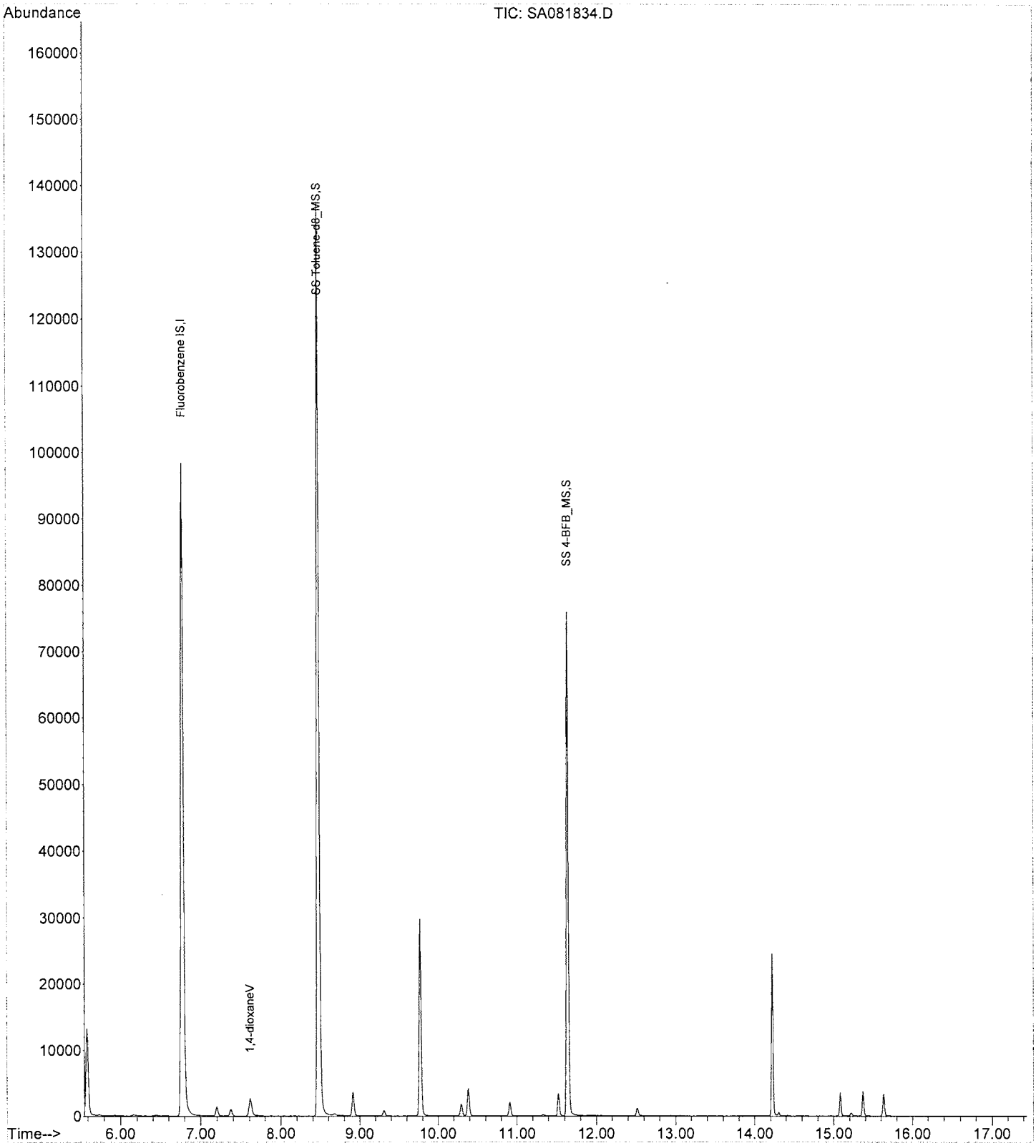
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	182761	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	189612	9.99	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.95%			
4) SS 4-BFB_MS	11.64	95	71009	10.45	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.49%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3687m	4.807	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081834.D Vial: 34
Acq On : 19 Aug 2013 3:49 pm Operator: VG
Sample : LCSaA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 9:09 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081835.D Vial: 35
Acq On : 19 Aug 2013 4:37 pm Operator: VG
Sample : LCSDA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:38:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

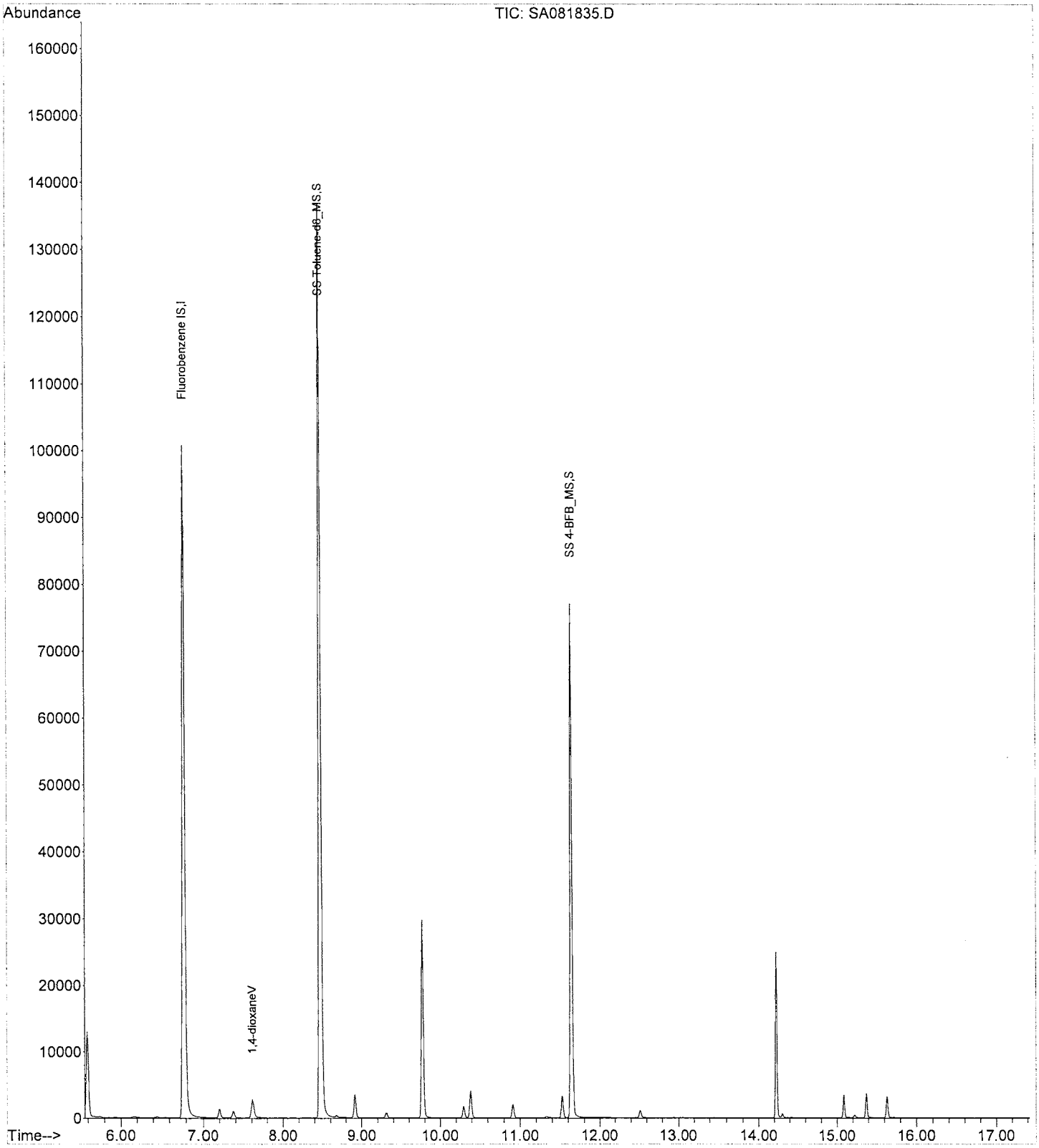
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	182612	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	188283	9.93	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.33%			
4) SS 4-BFB_MS	11.64	95	71611	10.55	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.46%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3792m	4.948	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081835.D Vial: 35
Acq On : 19 Aug 2013 4:37 pm Operator: VG
Sample : LCSDA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 9:09 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081836.D Vial: 36
Acq On : 19 Aug 2013 5:25 pm Operator: VG
Sample : BlnkA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:38:33 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

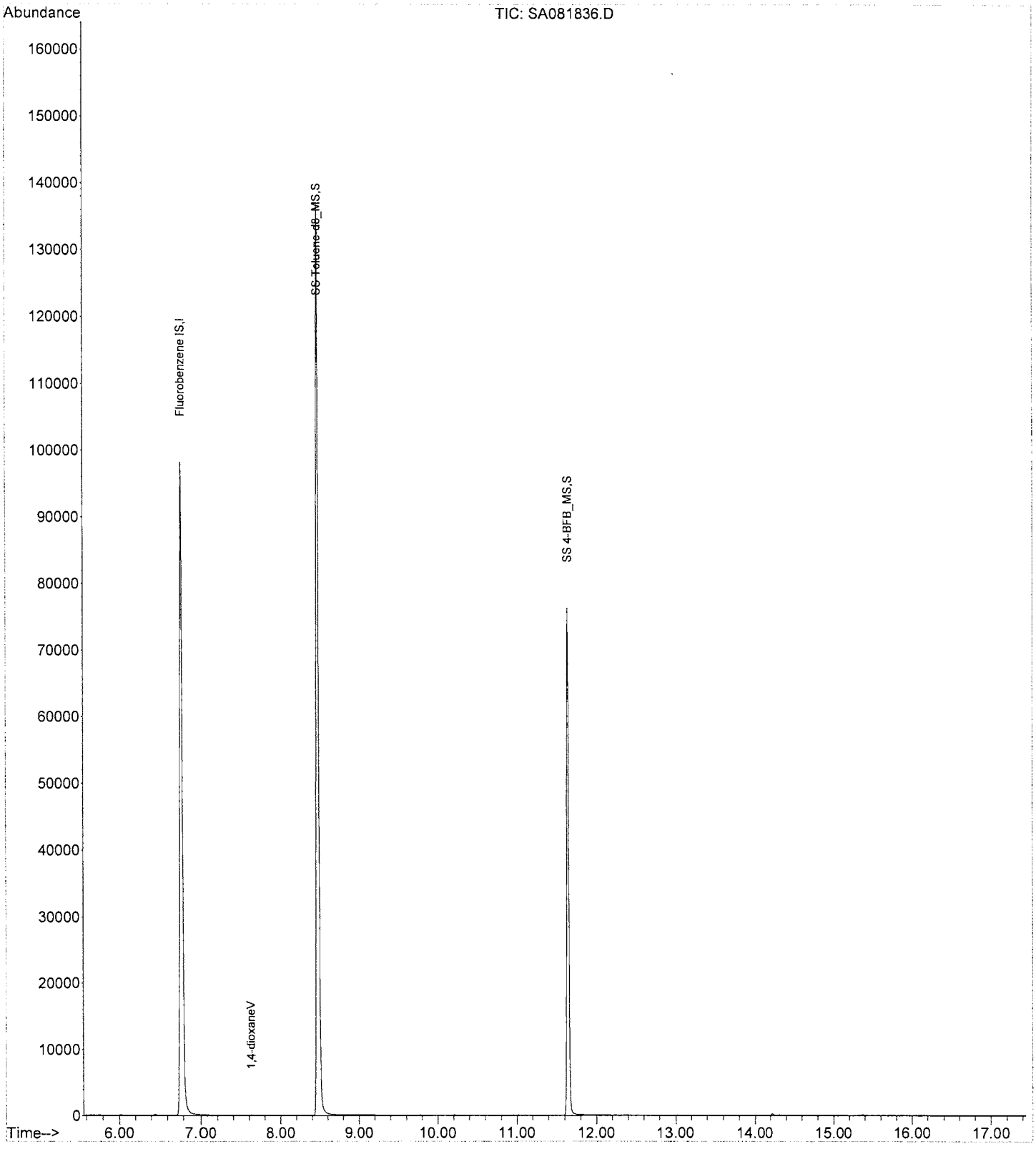
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	183285	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	189590	9.97	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.65%		
4) SS 4-BFB_MS		11.64	95	71315	10.46	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	104.64%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.62	88	78	0.101	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081836.D Vial: 36
Acq On : 19 Aug 2013 5:25 pm Operator: VG
Sample : BlnkA081813V82603 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:36 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081837.D Vial: 37
Acq On : 19 Aug 2013 6:14 pm Operator: VG
Sample : 123529.26 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:38:55 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	182102	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.48	98	180389	9.54	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.43%			
4) SS 4-BFB_MS	11.64	95	71473	10.56	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.55%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	8	0.010	ug/L	74

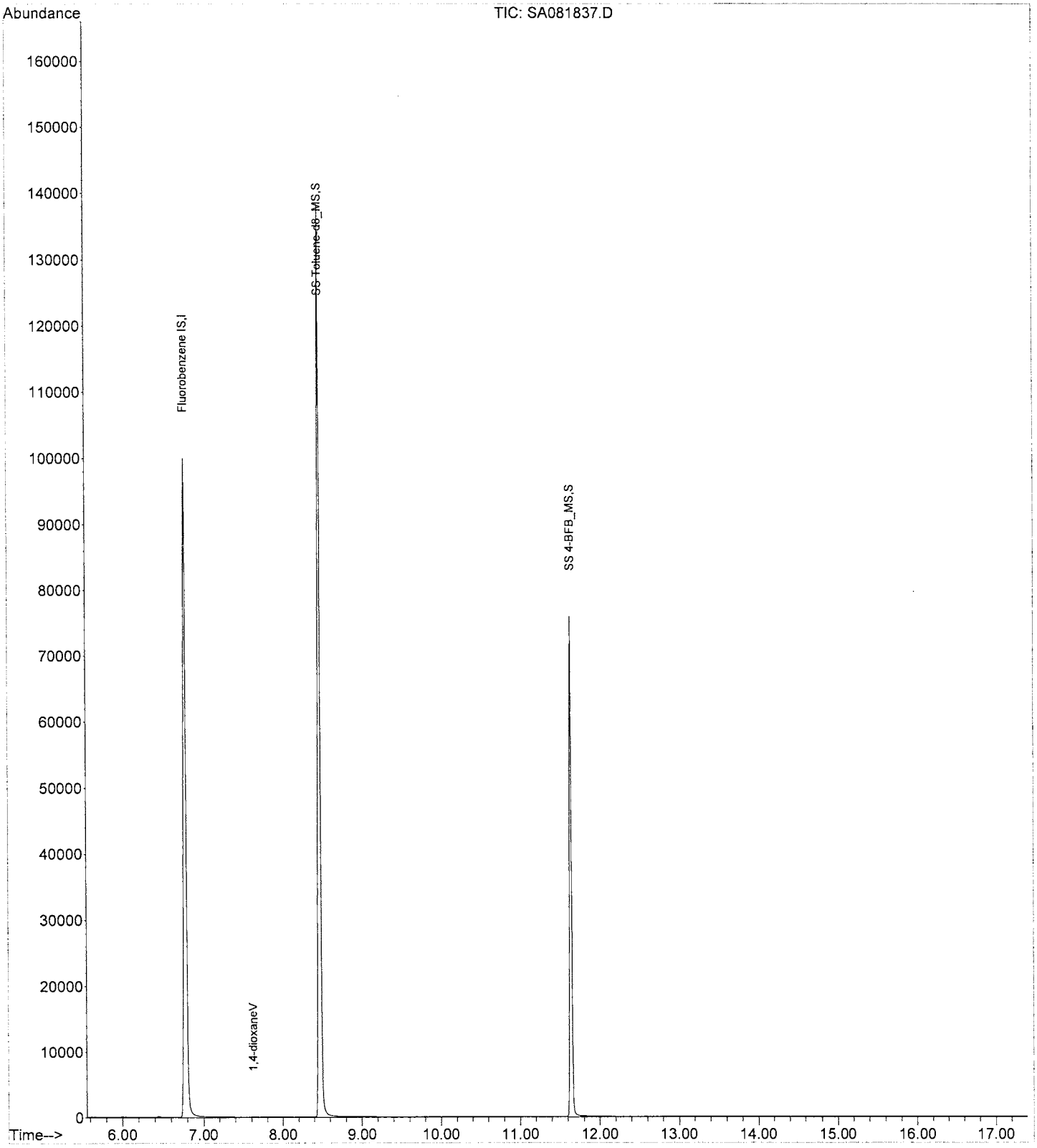
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081837.D Vial: 37
Acq On : 19 Aug 2013 6:14 pm Operator: VG
Sample : 123529.26 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081838.D Vial: 38
Acq On : 19 Aug 2013 7:02 pm Operator: VG
Sample : 123529.14 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:21 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	178963	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	175372	9.44	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.40%			
4) SS 4-BFB_MS	11.64	95	70340	10.57	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.70%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	~~1453~~ 701	~~1.935~~ 0.93	ug/L	# 67

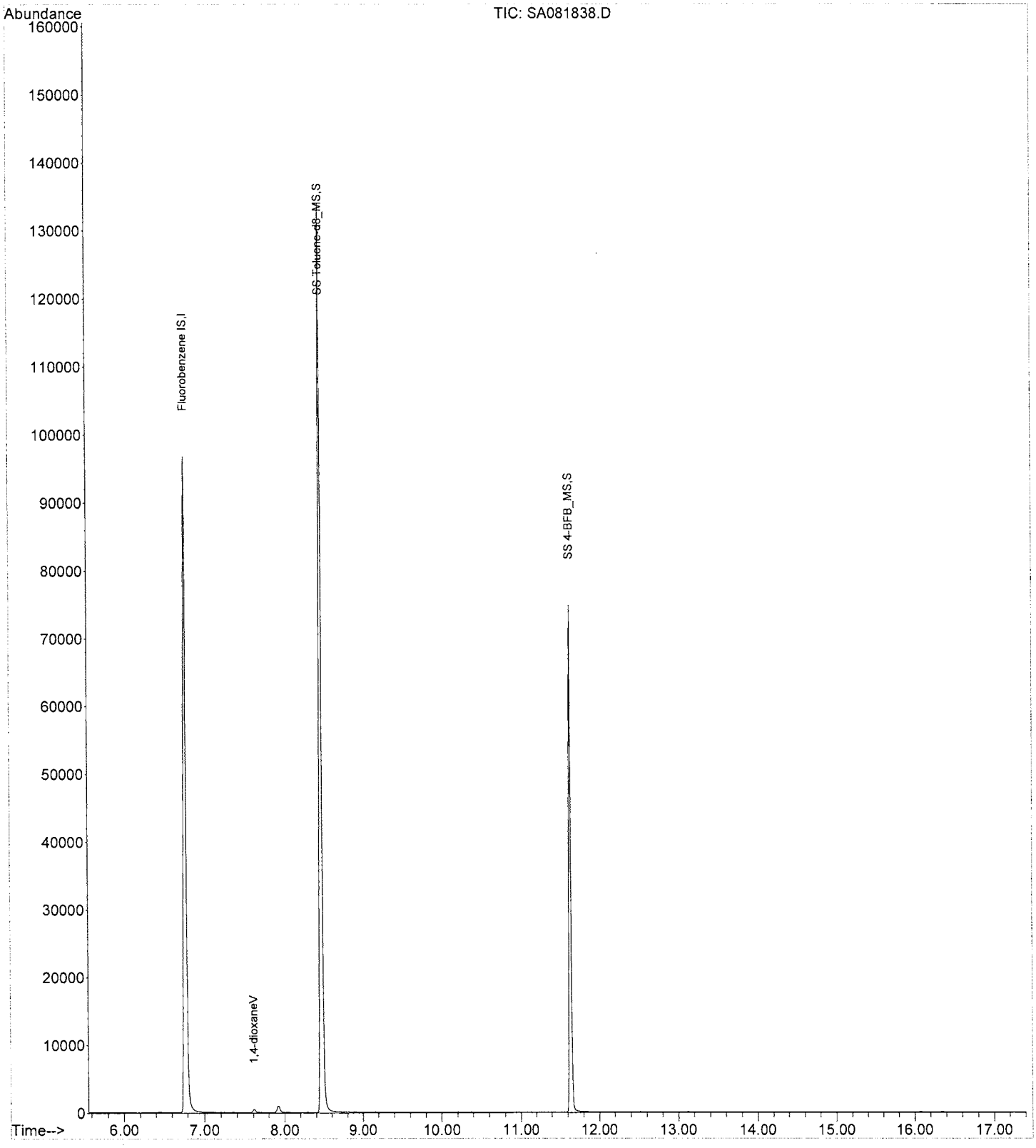
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081838.D 2SIM0510.M Tue Aug 20 08:39:21 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081838.D Vial: 38
Acq On : 19 Aug 2013 7:02 pm Operator: VG
Sample : 123529.14 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081839.D Vial: 39
Acq On : 19 Aug 2013 7:52 pm Operator: VG
Sample : 123529.24 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:24 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	160127	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	169209	10.18	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.80%		
4) SS 4-BFB_MS		11.63	95	65144	10.94	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	109.41%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.55	88	8	0.012	ug/L #	28

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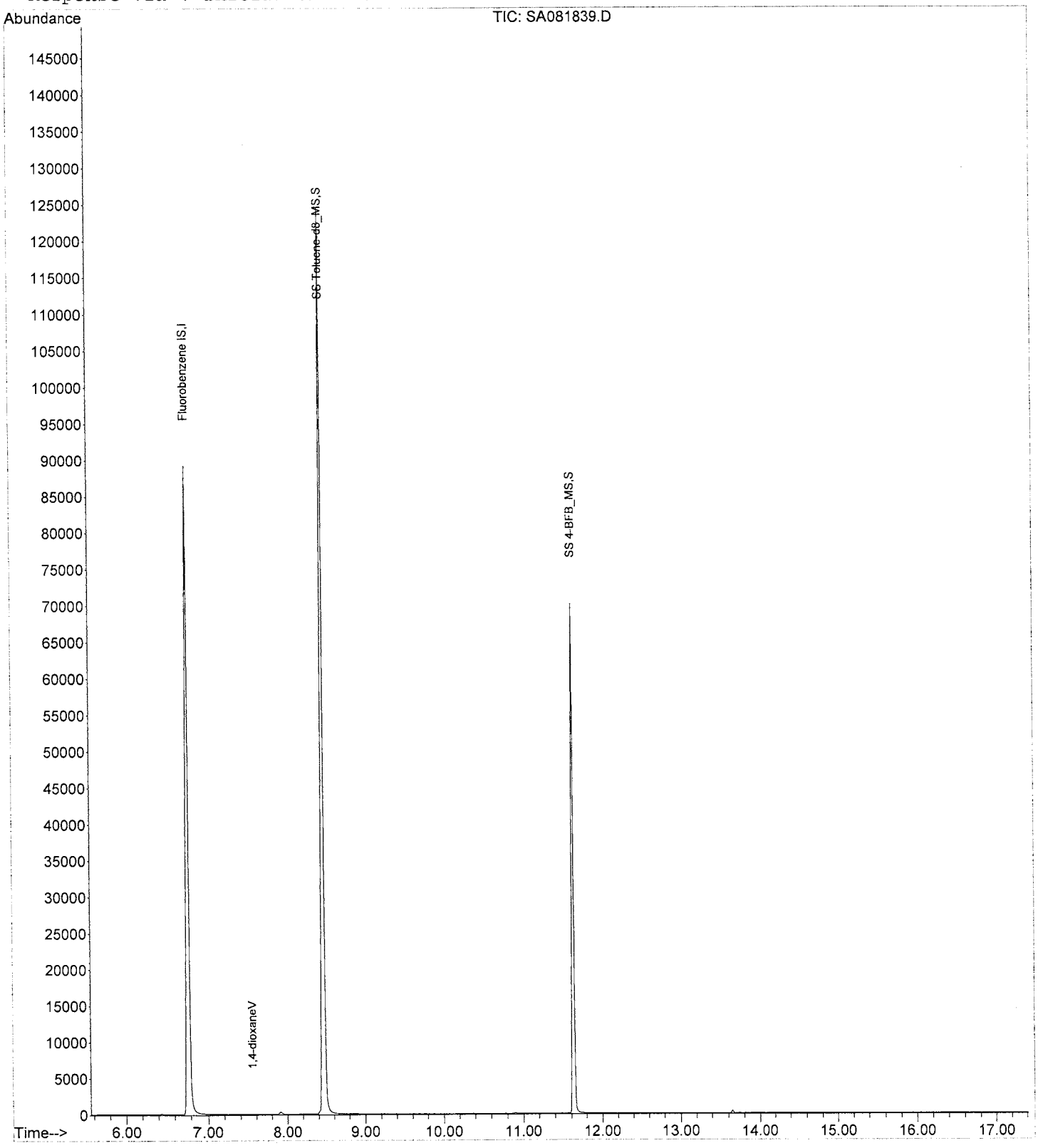
(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081839.D 2SIM0510.M Tue Aug 20 08:39:24 2013 Page 1

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Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081839.D Vial: 39
Acq On : 19 Aug 2013 7:52 pm Operator: VG
Sample : 123529.24 Inst : VOAMS2
Misc : X1;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081840.D Vial: 40
Acq On : 19 Aug 2013 8:43 pm Operator: VG
Sample : 123529.11 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:27 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

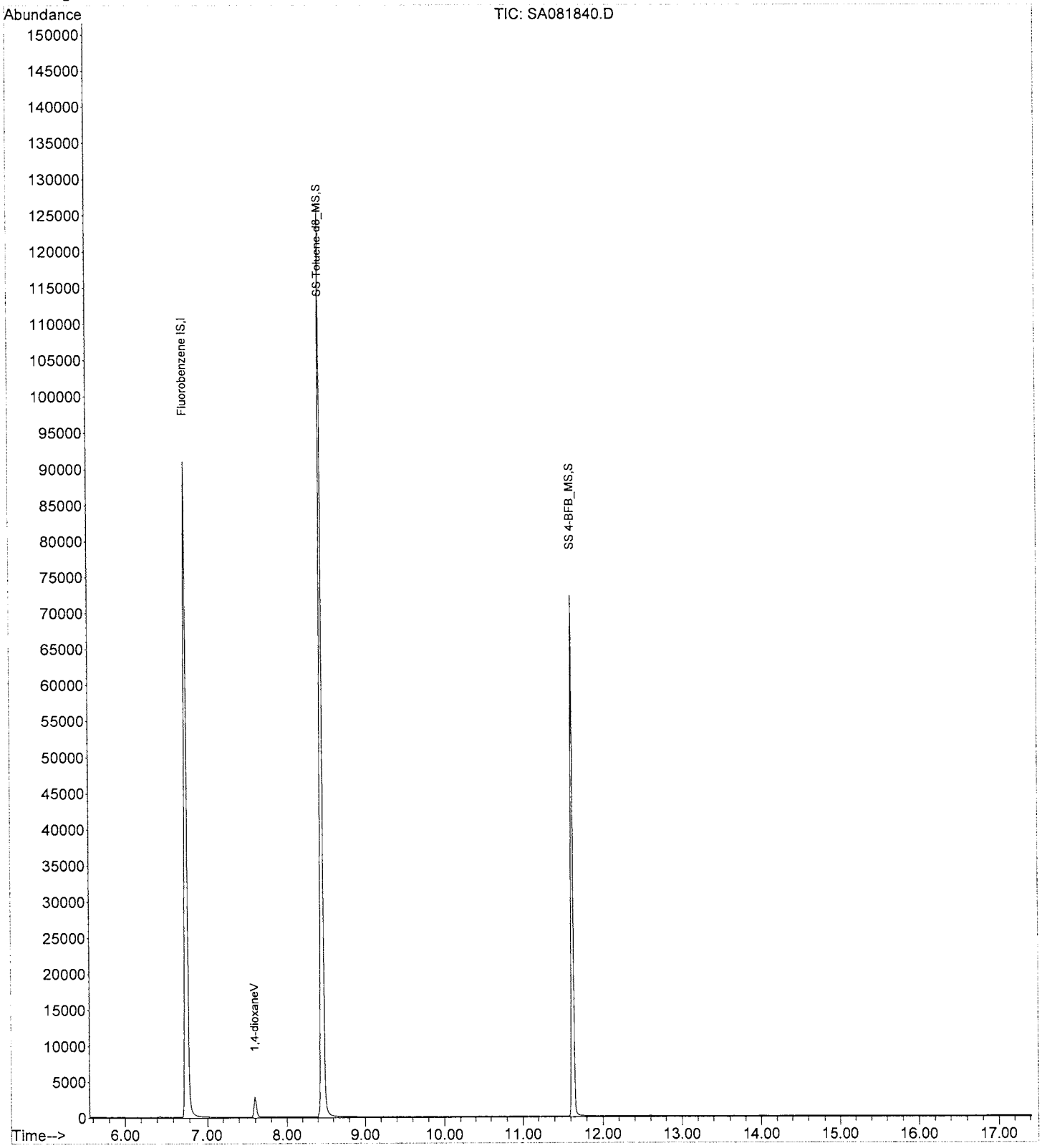
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	163656	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	163407	9.62 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.19%		
4) SS 4-BFB_MS	11.63	95	67090	11.02 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.25%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	4089	5.954 ug/L	78

8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081840.D Vial: 40
Acq On : 19 Aug 2013 8:43 pm Operator: VG
Sample : 123529.11 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081841.D Vial: 41
Acq On : 19 Aug 2013 9:33 pm Operator: VG
Sample : 123529.12 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:30 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

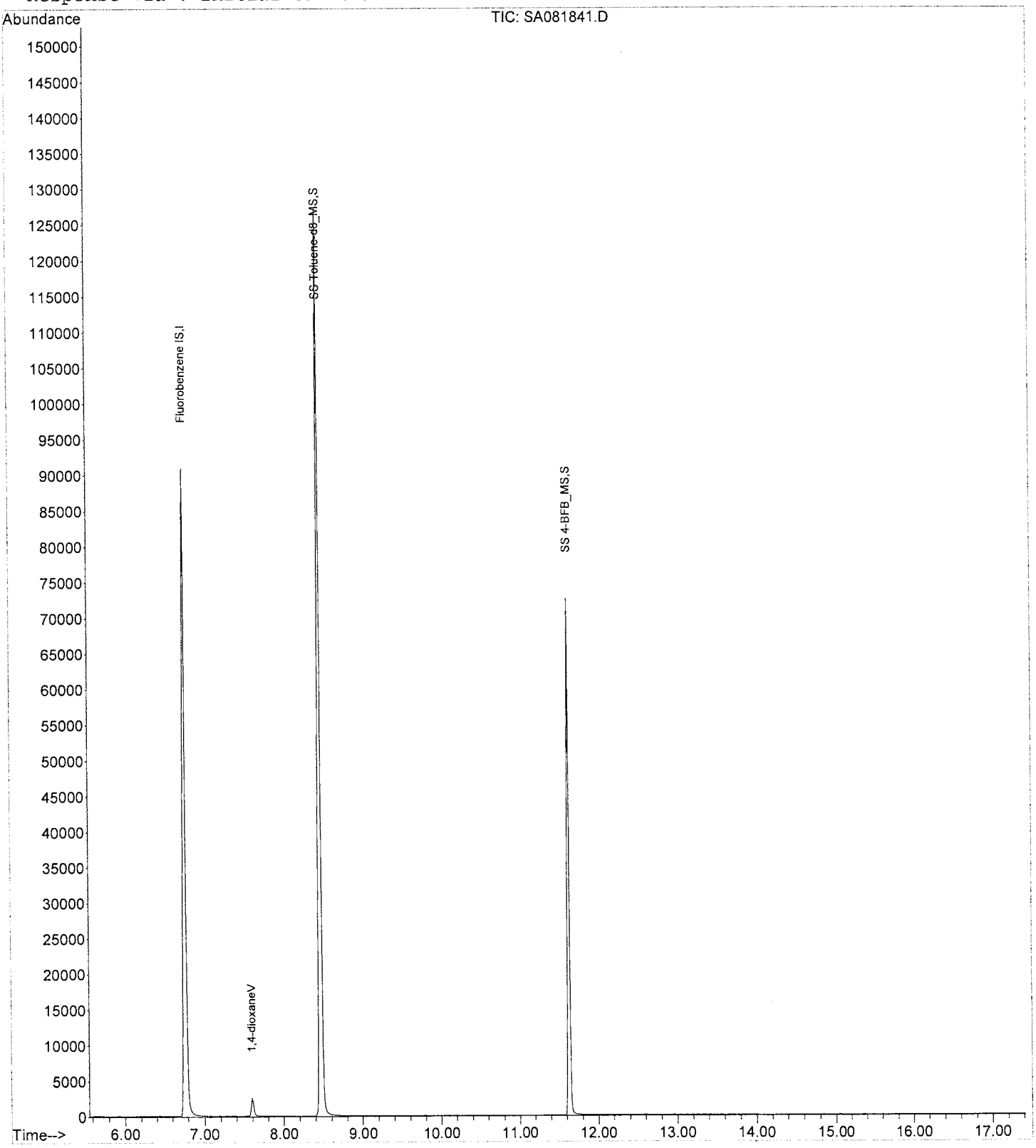
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	164330	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	163641	9.59	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	95.93%		
4) SS 4-BFB_MS		11.63	95	66330	10.86	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	108.55%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	3808	5.522	ug/L	75

8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081841.D Vial: 41
Acq On : 19 Aug 2013 9:33 pm Operator: VG
Sample : 123529.12 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081842.D Vial: 42
Acq On : 19 Aug 2013 10:24 pm Operator: VG
Sample : 123529.13 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:33 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	163068	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	161680	9.55	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.52%			
4) SS 4-BFB_MS	11.63	95	67052	11.06	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.58%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	4891	7.147	ug/L	77

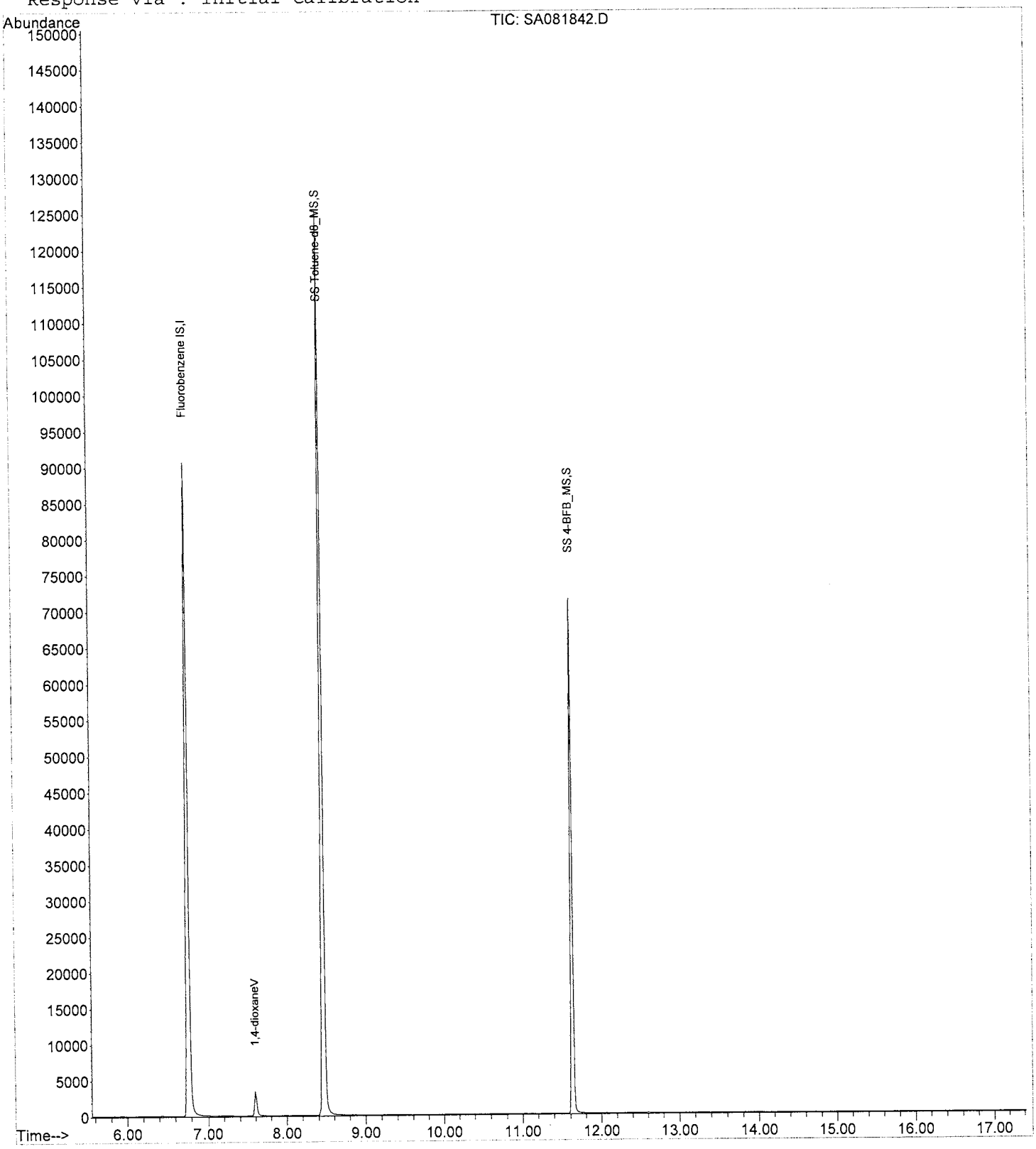
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081842.D 2SIM0510.M Tue Aug 20 08:39:33 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081842.D Vial: 42
Acq On : 19 Aug 2013 10:24 pm Operator: VG
Sample : 123529.13 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081843.D Vial: 43
Acq On : 19 Aug 2013 11:15 pm Operator: VG
Sample : 123529.20 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:36 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

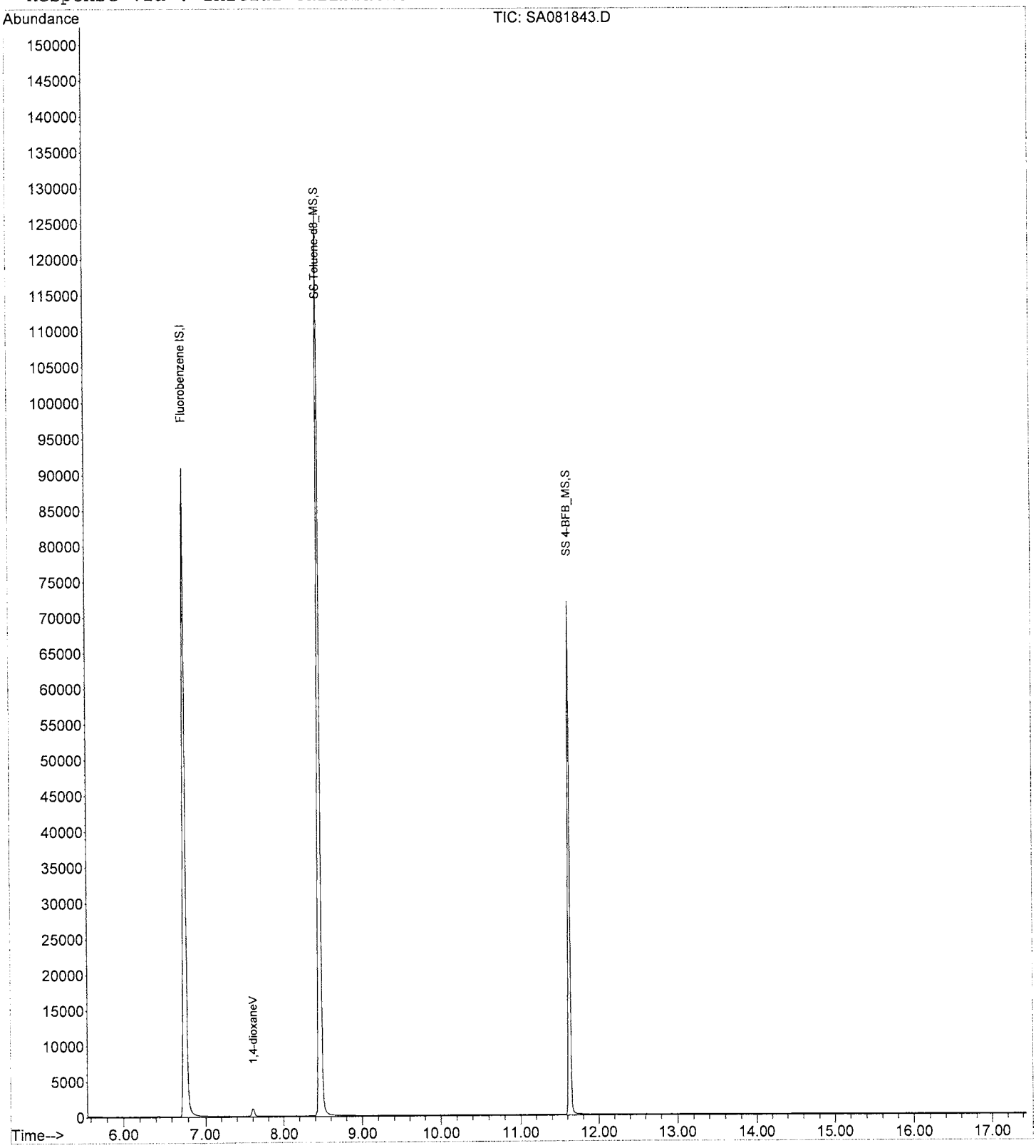
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	162863	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	163194	9.65 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.53%		
4) SS 4-BFB_MS	11.63	95	67130	11.09 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.85%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	1701	2.489 ug/L	94

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(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081843.D 2SIM0510.M Tue Aug 20 08:39:36 2013

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081843.D Vial: 43
Acq On : 19 Aug 2013 11:15 pm Operator: VG
Sample : 123529.20 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081844.D Vial: 44
Acq On : 20 Aug 2013 12:05 am Operator: VG
Sample : 123529.21 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:39 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	163420	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	170421	10.05	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.47%			
4) SS 4-BFB_MS	11.63	95	67614	11.13	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.27%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1671	2.436	ug/L	95

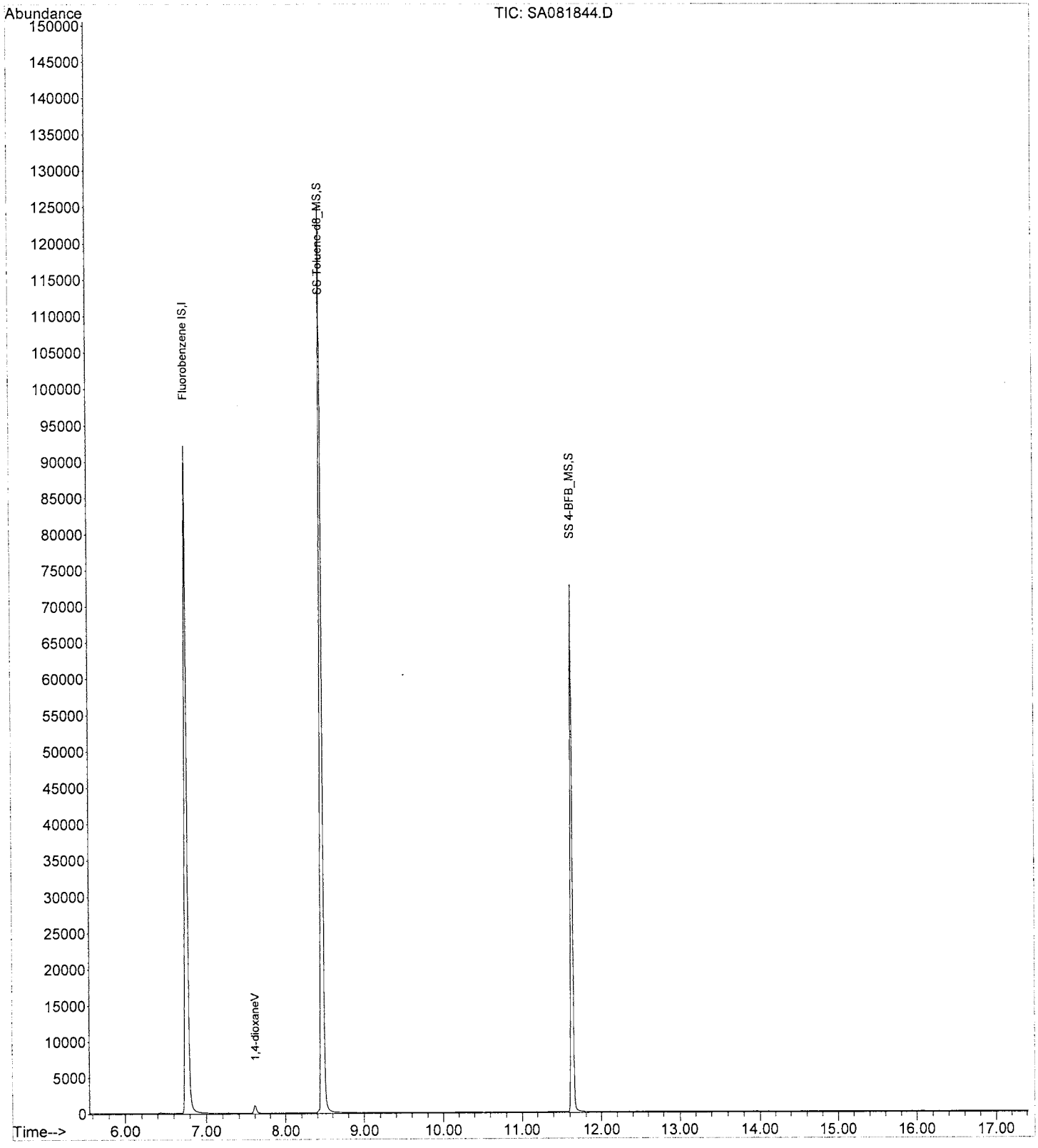
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081844.D Vial: 44
Acq On : 20 Aug 2013 12:05 am Operator: VG
Sample : 123529.21 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081845.D Vial: 45
Acq On : 20 Aug 2013 12:56 am Operator: VG
Sample : 123529.22 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:42 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	160722	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	163498	9.80	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.00%		
4) SS 4-BFB_MS		11.63	95	67727	11.33	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	113.33%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	1690	2.506	ug/L	94

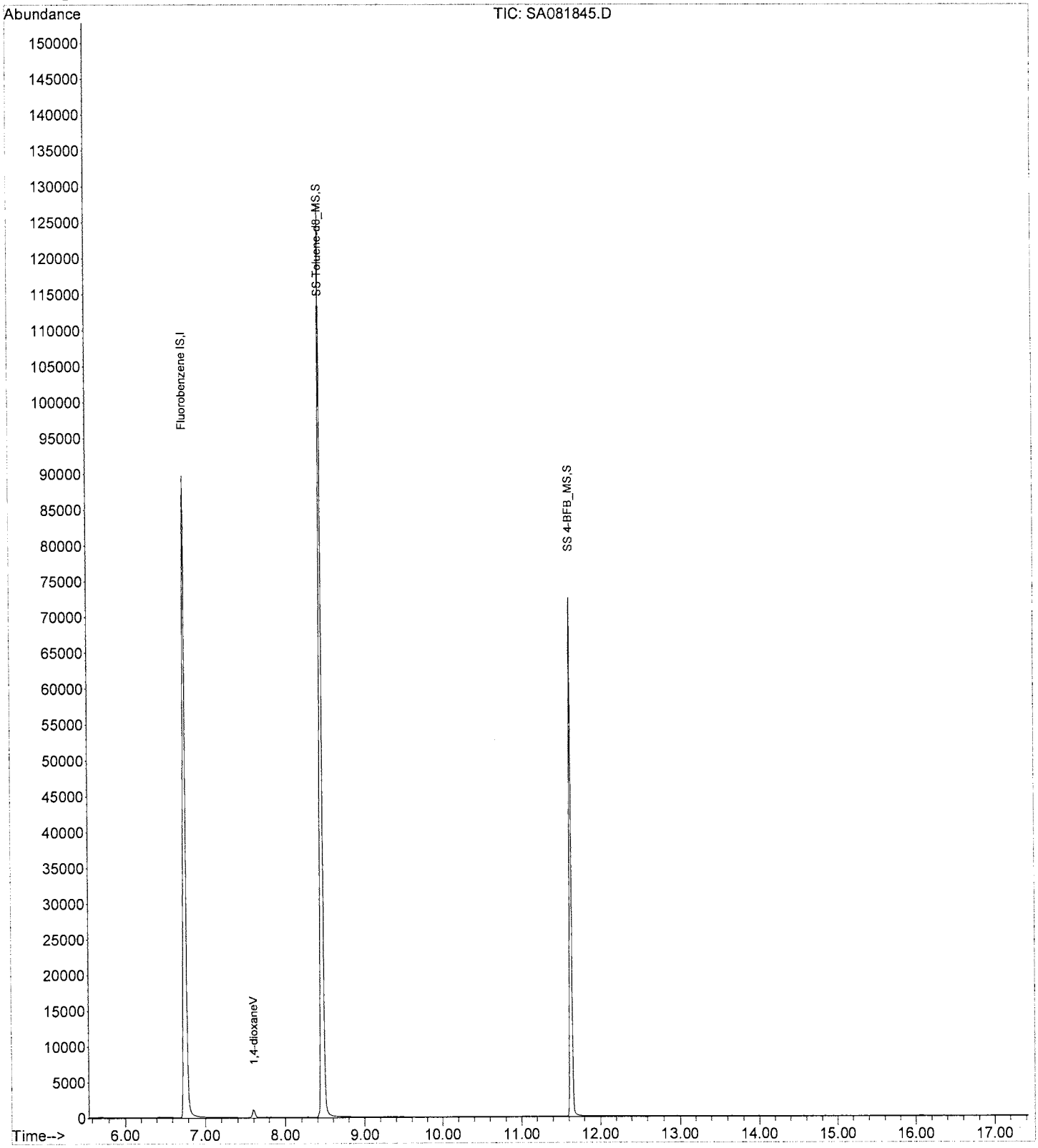
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081845.D Vial: 45
Acq On : 20 Aug 2013 12:56 am Operator: VG
Sample : 123529.22 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081846.D Vial: 46
Acq On : 20 Aug 2013 1:47 am Operator: VG
Sample : 123529.23 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 08:39:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	159997	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	167182	10.07	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.66%			
4) SS 4-BFB_MS	11.63	95	65858	11.07	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.70%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.60	88	1643	2.447	ug/L	# 70

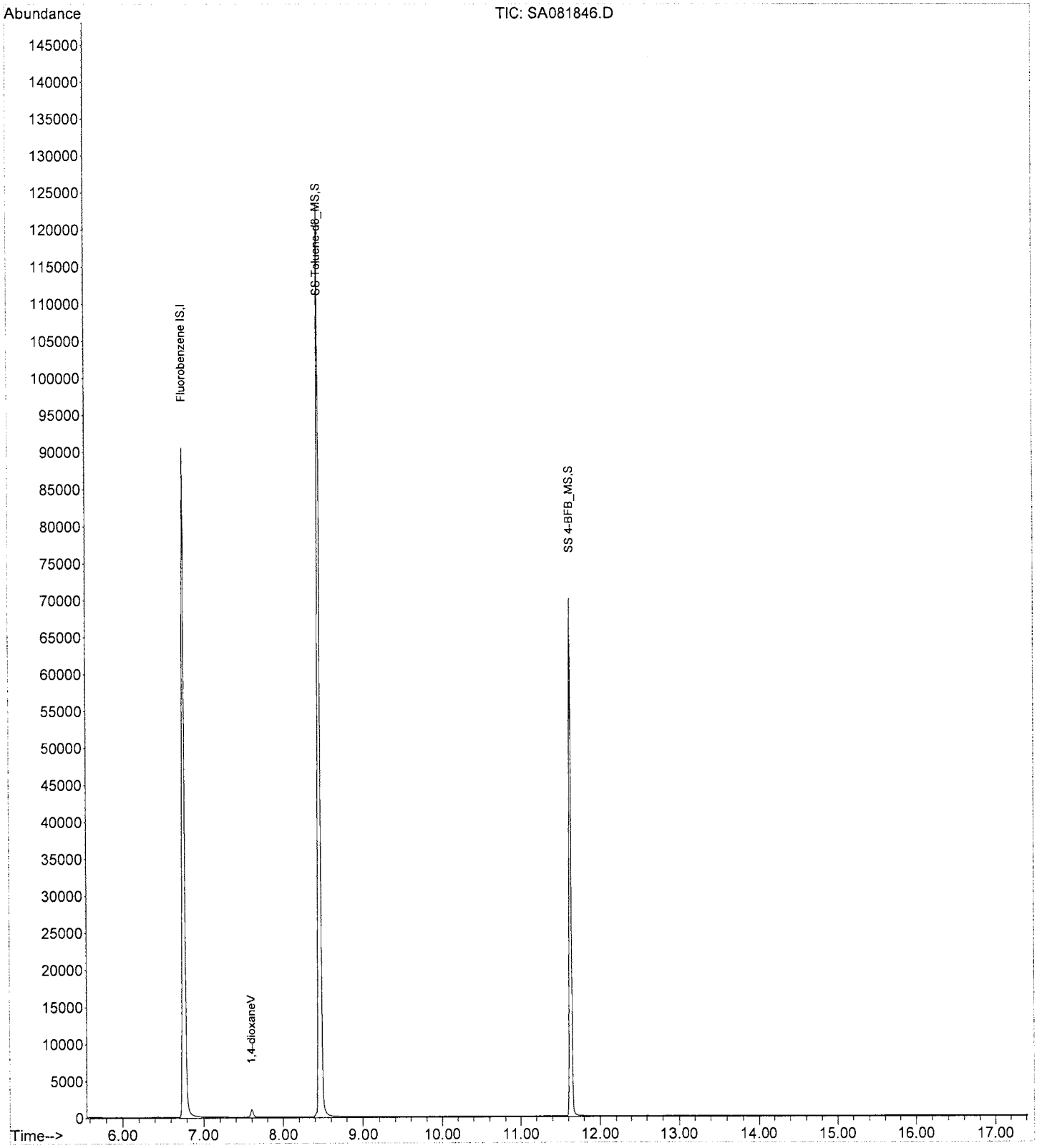
8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG1813\SA081846.D Vial: 46
Acq On : 20 Aug 2013 1:47 am Operator: VG
Sample : 123529.23 Inst : VOAMS2
Misc : X100;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 8:37 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



IS/SS ID= V- 4079
Standard ID= V- 4040
LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	S[illegible]	BFB		✓		X1	VOC MS1			
2	2	STD5		✓			VOC SIM	2SIMS10		
3	3	LCS		✓			VOC			
4	4	LCSD		✓			VOC			
5	5	BLANK		✓			VOC			
6	6	123513.02	✓	✓		X1	VOC			
7	7	123612.01		✓			VOC			
8	8	02		✓			VOC			
9	9	10		✓			VOC			
10	10	11		✓			VOC			
11	11	12		✓			VOC			
12	12	123539.06	✓	✓		X20	VOC			
13	13	07	✓	✓			VOC			
14	14	08	✓	✓			VOC			
15	15	09	✓	✓		X10	VOC			
16	16	STD0.5		✓		X1	VOC			
17	17	BFB		✓			VOC MS1			
18	18	STD5		✓			VOC SIM			
19	19	LCS		✓			VOC			
20	20	LCSD		✓			VOC			
21	21	BLANK		✓			VOC			
22	22	123612.13		✓			VOC			
23	23	14		✓			VOC			
24	24	16		✓			VOC			
25	25	123649.03		✓			VOC			
26	26	05		✓			VOC			
27	27	06		✓		X10	VOC			
28	28	01		✓			VOC			
29	29	02		✓			VOC			
30	30	01MS		✓			VOC			
31	31	01MSD		✓			VOC			
							VOC			
							VOC			
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							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by [signature] 8/21/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2013\SA082001.D
Tune Time : 20 Aug 2013 9:10 am

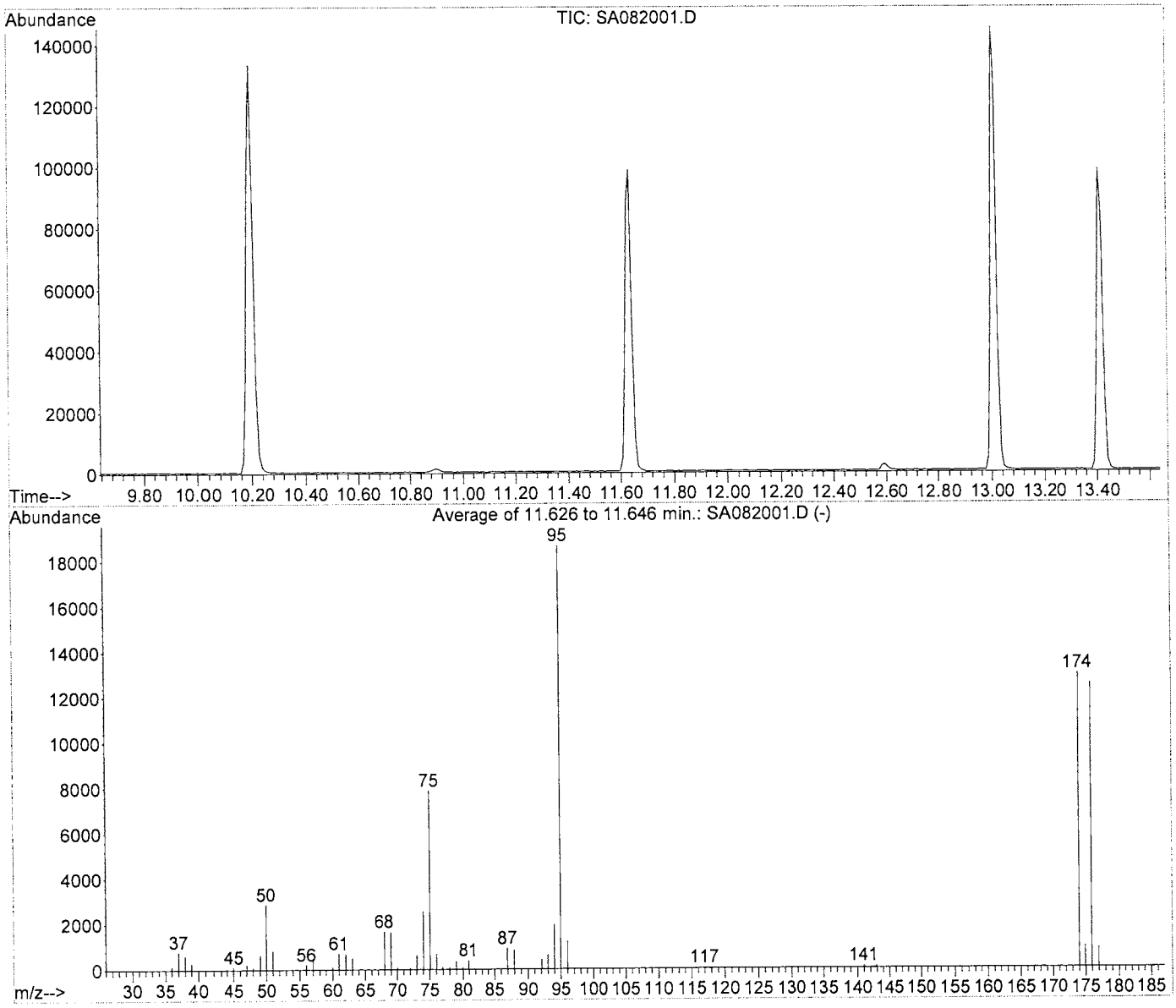
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2013\SA082002.D

				195409
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082002.D	STD5	97	97	195409
SA082003.D	LCS5	98	97	195100
SA082004.D	LCSD	99	98	191362
SA082005.D	BLANK	97	96	194399
SA082006.D	123513.02	97	97	194882
SA082007.D	123612.01	95	97	192198
SA082008.D	123612.09	92	97	195206
SA082009.D	123612.10	98	98	192499
SA082010.D	123612.11	92	97	192775
SA082011.D	123612.12	94	98	191884
SA082012.D	123529.06	98	99	189103
SA082013.D	123529.07	94	99	190810
SA082014.D	123529.08	97	100	176255
SA082015.D	123529.09	94	102	172811
SA082016.D	tSTD0.25	98	102	172957

t - fails 12hr time check * - fails criteria

Created: Wed Aug 21 08:19:21 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 9:10 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



AutoFind: Scans 616, 617, 618; Background Corrected with Scan 611

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	2858	PASS
75	95	30	60	42.1	7862	PASS
95	95	100	100	100.0	18655	PASS
96	95	5	9	6.5	1217	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.5	12968	PASS
175	174	5	9	7.2	934	PASS
176	174	95	101	96.6	12530	PASS
177	176	5	9	6.8	847	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 10:00 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	123	0.00
2		1,4-dioxaneV	5.000	4.608	7.8	113	0.00
3	S	SS Toluene-d8_MS	10.000	9.735	2.7	118	0.00
4	S	SS 4-BFB_MS	10.000	9.718	2.8	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Wed Aug 21 11:41:01 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 10:00 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 11:35:43 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

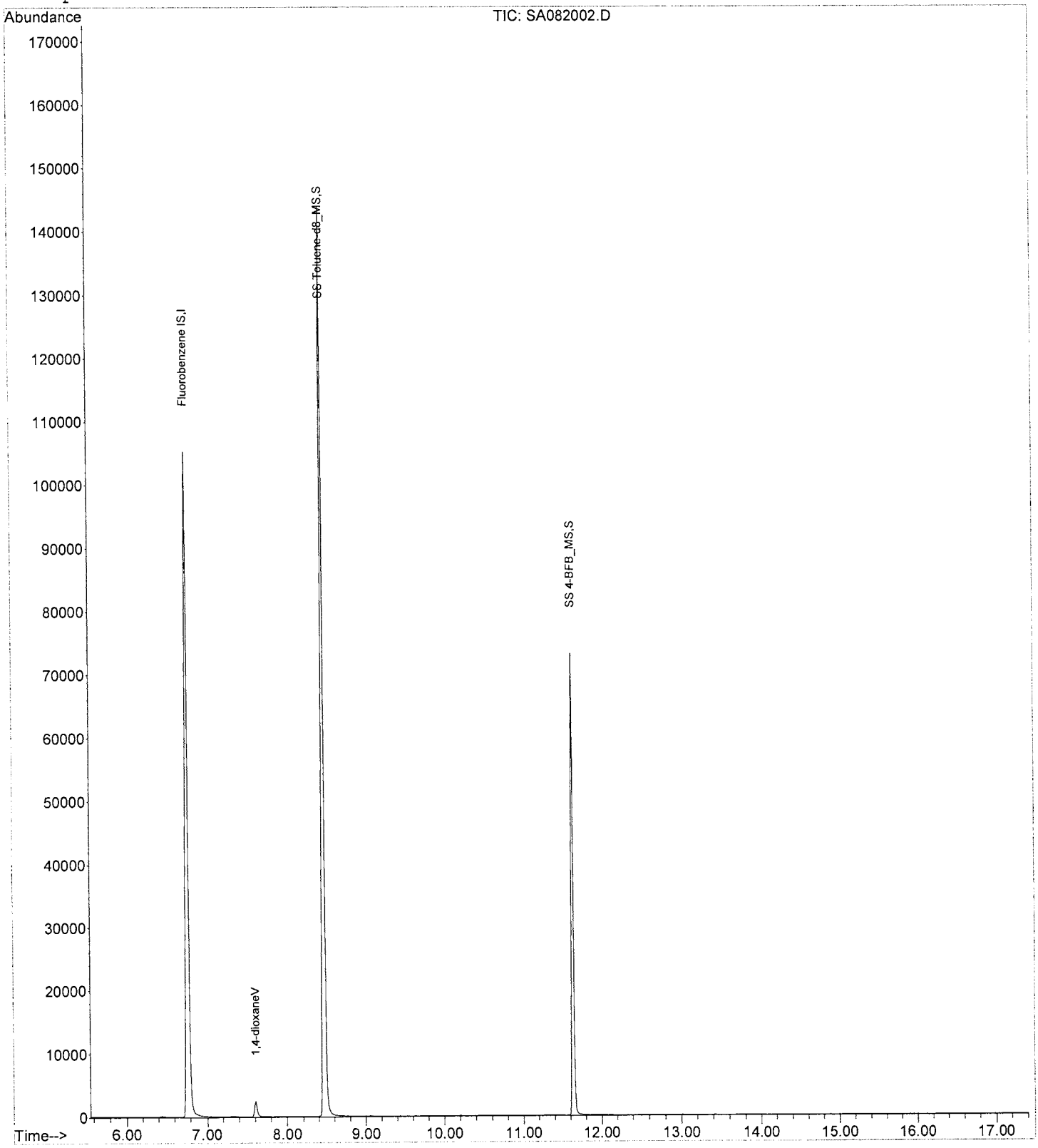
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	195409	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	197470	9.74	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.35%			
4) SS 4-BFB_MS	11.63	95	70611	9.72	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3779	4.608	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 10:00 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 20 11:33 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082003.D Vial: 3
Acq On : 20 Aug 2013 10:49 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:13:00 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

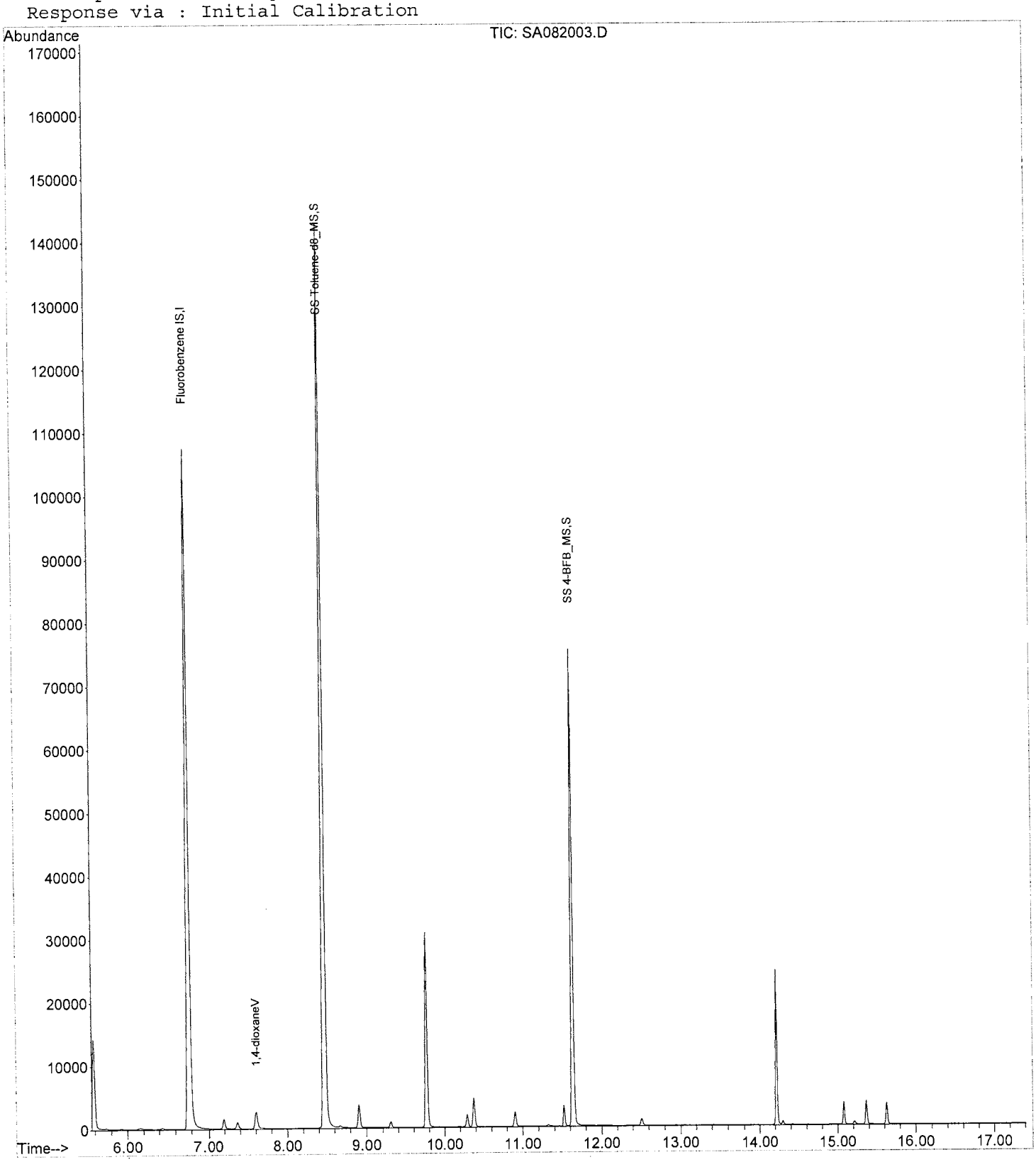
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	195100	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	197738	9.76	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.64%		
4) SS 4-BFB_MS			11.64	95	70450	9.71	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	97.11%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	3777m	4.613	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082003.D 2SIM0510.M Wed Aug 21 11:41:20 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082003.D Vial: 3
Acq On : 20 Aug 2013 10:49 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 9:38 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082004.D Vial: 4
Acq On : 20 Aug 2013 11:38 am Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:13:12 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

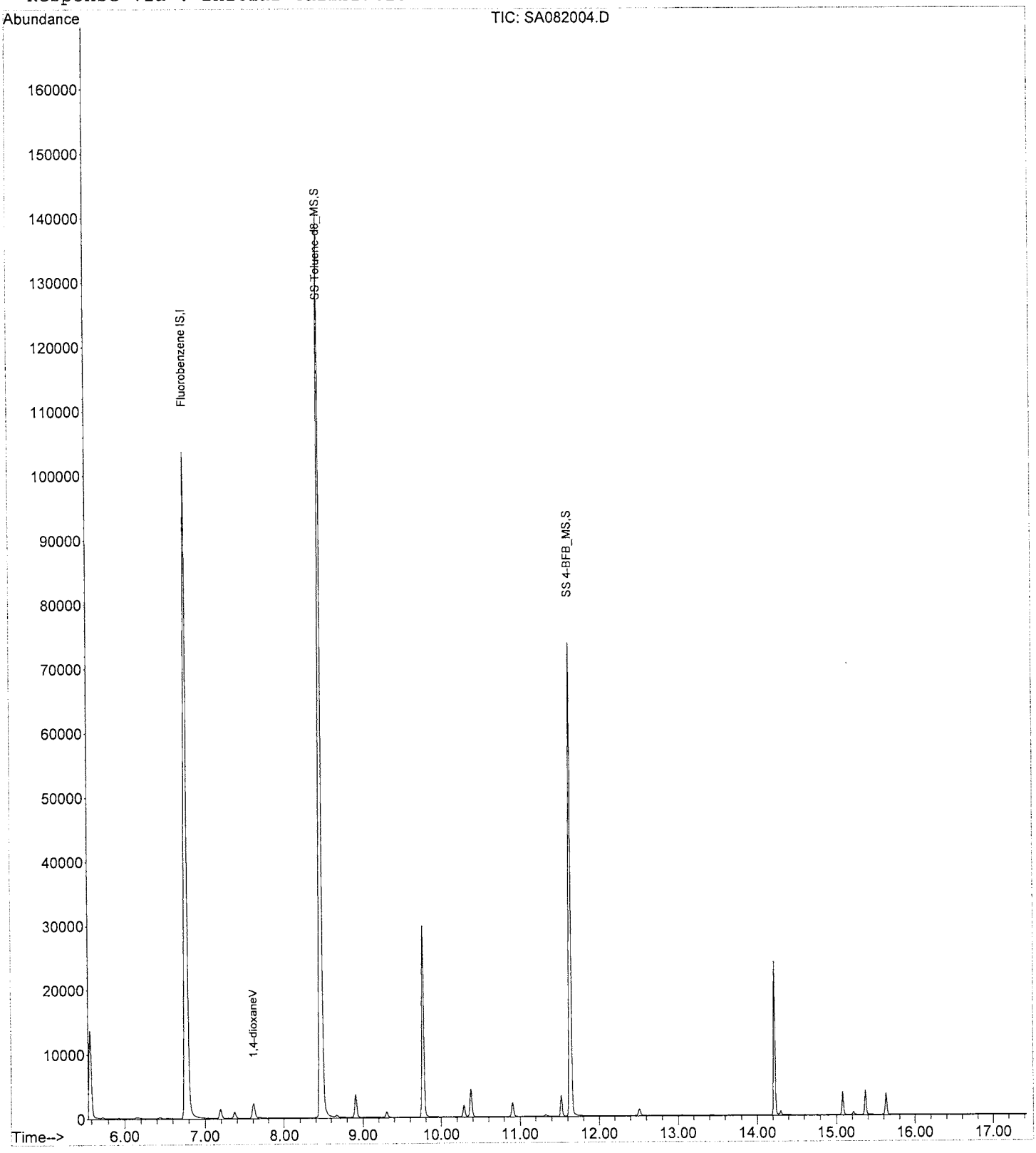
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	191362	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	195925	9.86	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.64%			
4) SS 4-BFB_MS	11.63	95	69954	9.83	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.31%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3341m	4.160	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082004.D Vial: 4
Acq On : 20 Aug 2013 11:38 am Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 9:38 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082005.D Vial: 5
Acq On : 20 Aug 2013 12:26 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:13:21 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

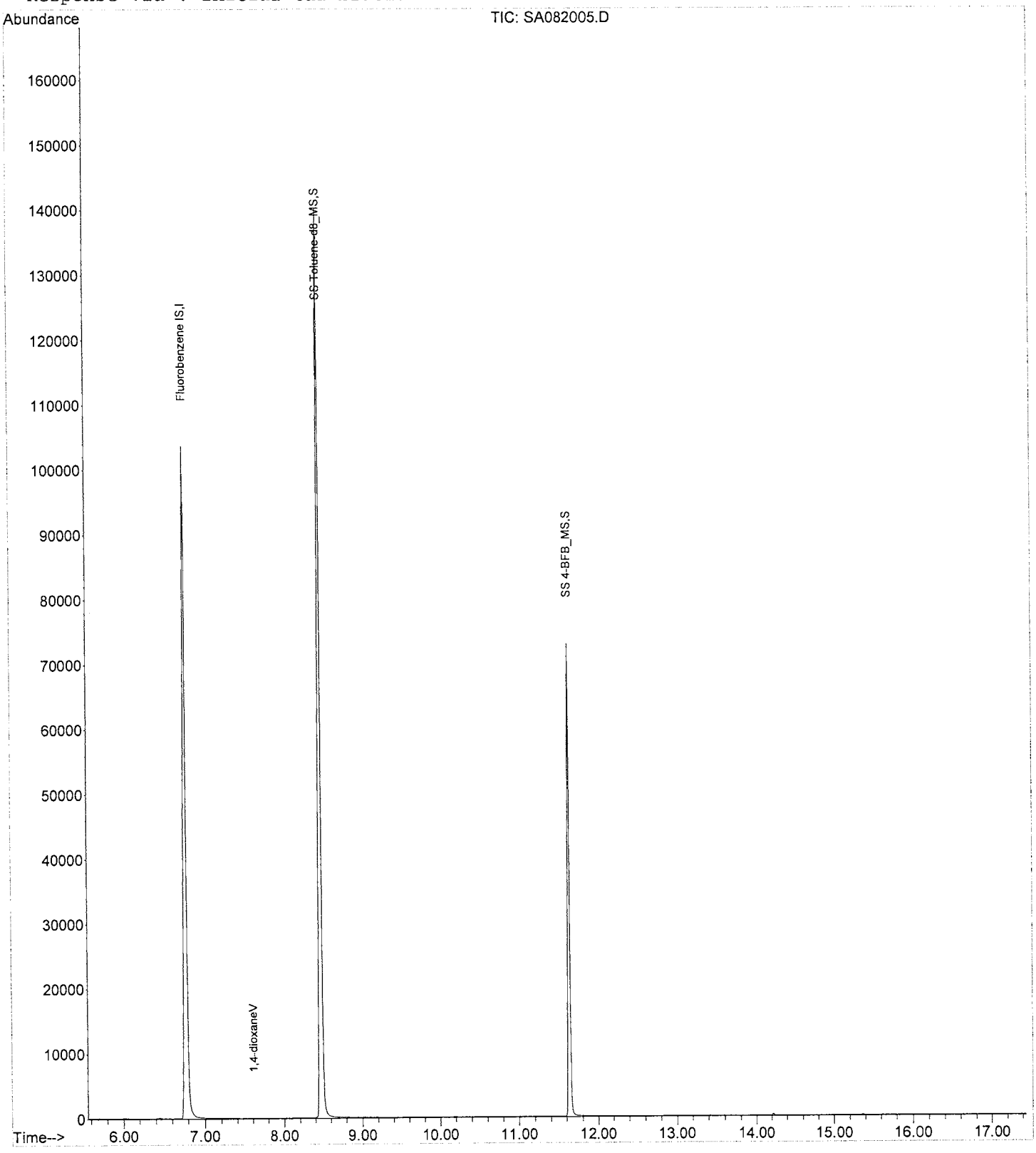
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	194399	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	194805	9.65	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.54%		
4) SS 4-BFB_MS		11.63	95	69714	9.64	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.44%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	76	0.093	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082005.D Vial: 5
Acq On : 20 Aug 2013 12:26 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:11 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082012.D Vial: 12
Acq On : 20 Aug 2013 6:06 pm Operator: VG
Sample : 123529.06 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:33 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	189103	10.000 ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS		8.47	98	193090	9.84 ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.37%	
4) SS 4-BFB_MS		11.64	95	69373	9.87 ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.66%	
Target Compounds						Qvalue
2) 1,4-dioxaneV		7.61	88	~~6322~~ 5467	~~7.966~~ 6.89 ug/L	90

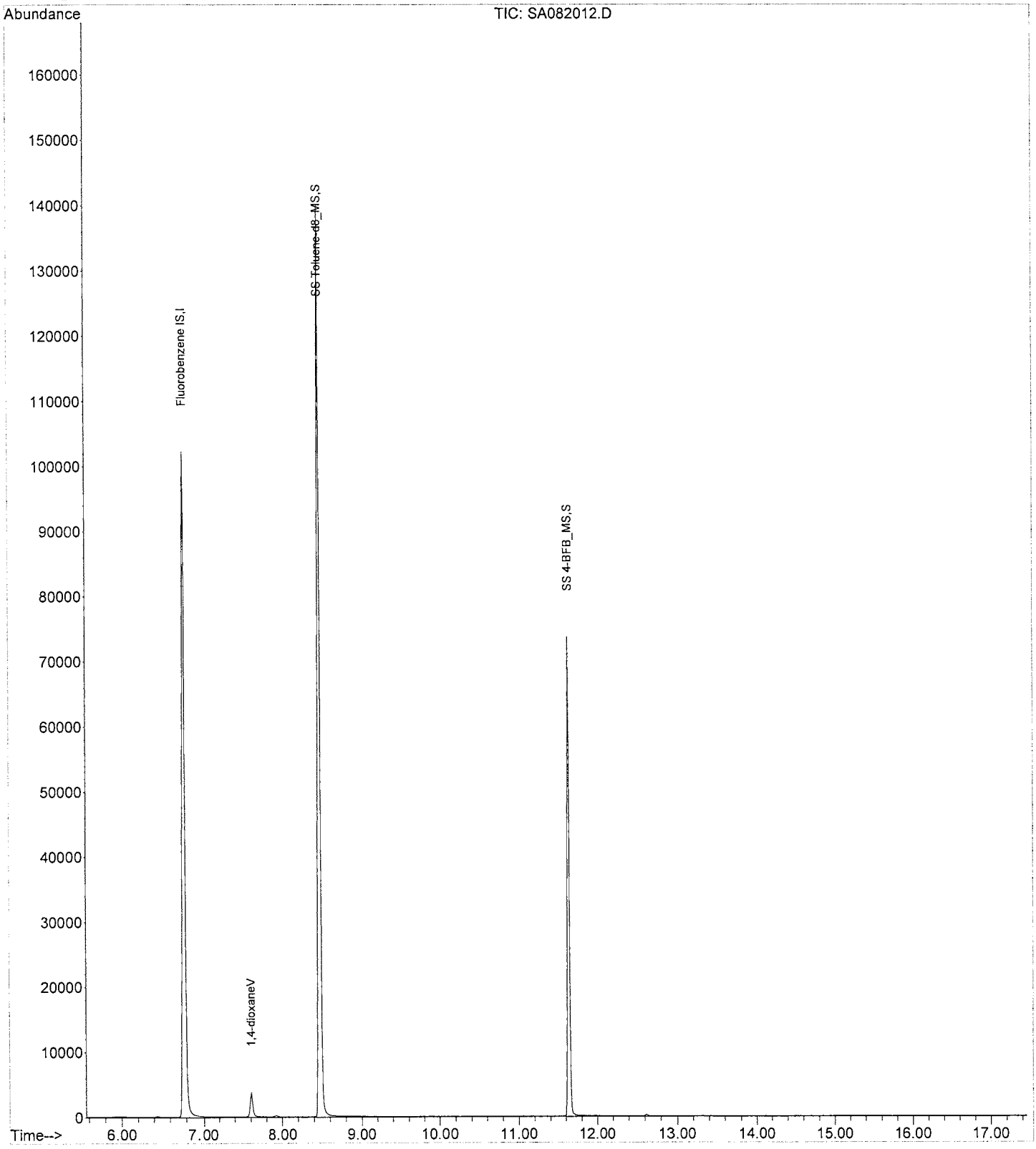
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082012.D 2SIM0510.M Wed Aug 21 08:17:33 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082012.D Vial: 12
Acq On : 20 Aug 2013 6:06 pm Operator: VG
Sample : 123529.06 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:15 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082013.D Vial: 13
Acq On : 20 Aug 2013 6:55 pm Operator: VG
Sample : 123529.07 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:36 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	190810	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	185305	9.36	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	93.56%		
4) SS 4-BFB_MS			11.64	95	70054	9.87	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	98.74%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	~~5800~~ 4900	~~7.243~~ 6.12	ug/L	88

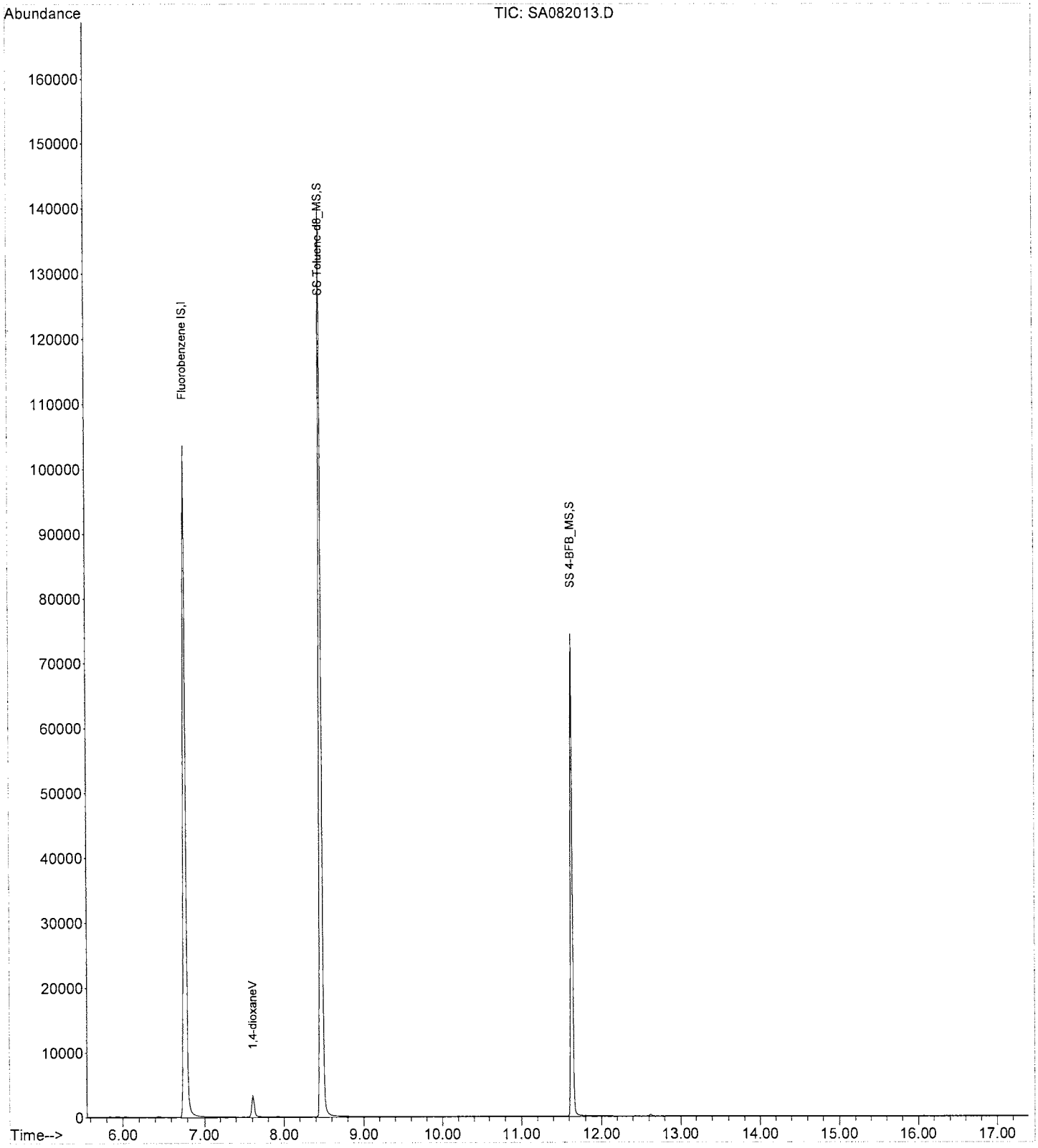
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082013.D 2SIM0510.M Wed Aug 21 08:17:36 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082013.D Vial: 13
Acq On : 20 Aug 2013 6:55 pm Operator: VG
Sample : 123529.07 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:15 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082014.D Vial: 14
Acq On : 20 Aug 2013 7:44 pm Operator: VG
Sample : 123529.08 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:39 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	176255	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	177420	9.70	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.97%			
4) SS 4-BFB_MS	11.63	95	65767	10.04	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.35%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	6966	9.417	ug/L	84

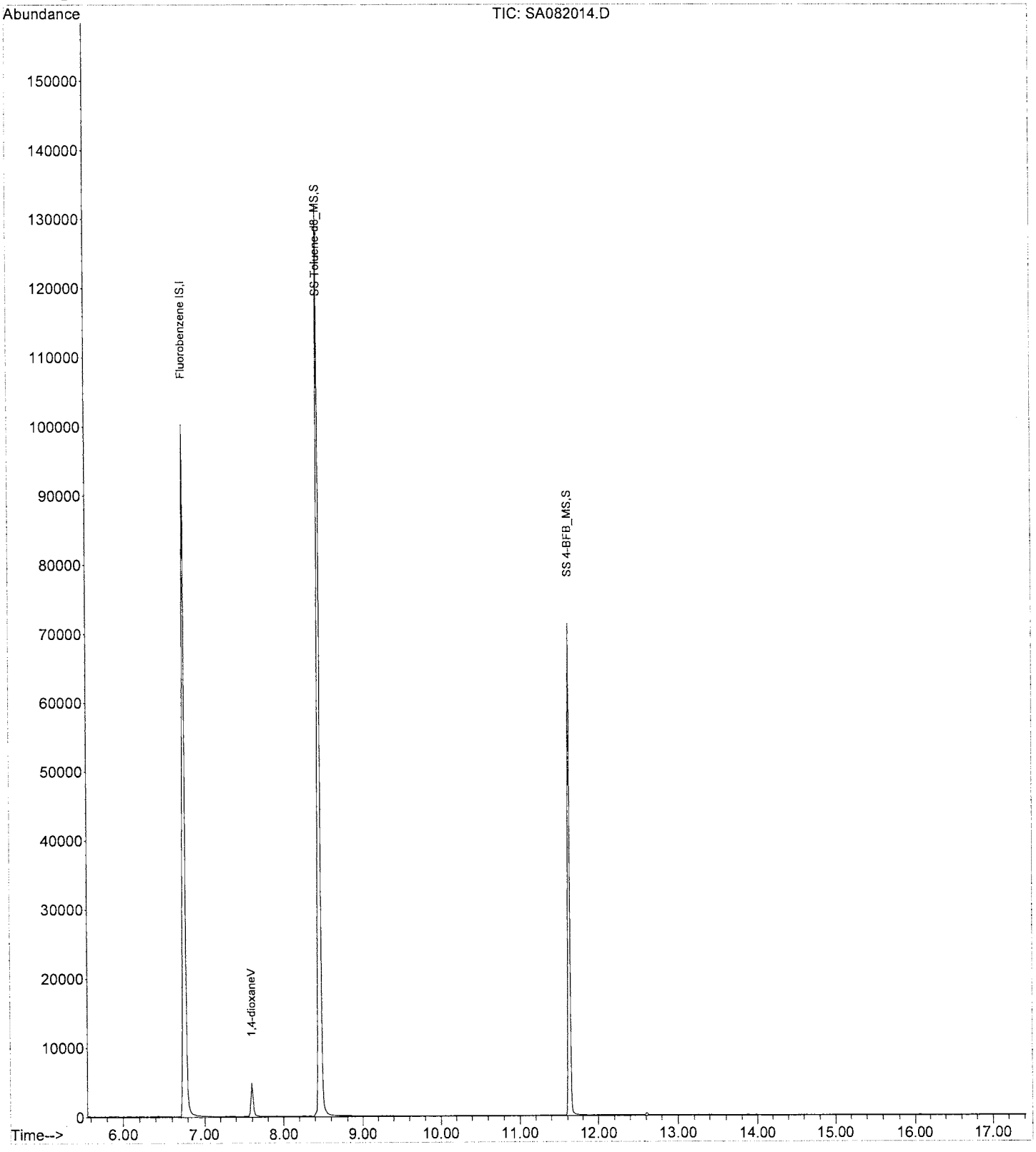
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082014.D 2SIM0510.M Wed Aug 21 08:17:39 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082014.D Vial: 14
Acq On : 20 Aug 2013 7:44 pm Operator: VG
Sample : 123529.08 Inst : VOAMS2
Misc : X20;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:15 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082015.D Vial: 15
Acq On : 20 Aug 2013 8:36 pm Operator: VG
Sample : 123529.09 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:42 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	172811	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	168887	9.42	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.15%			
4) SS 4-BFB_MS	11.62	95	65860	10.25	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.49%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3653	5.037	ug/L	85

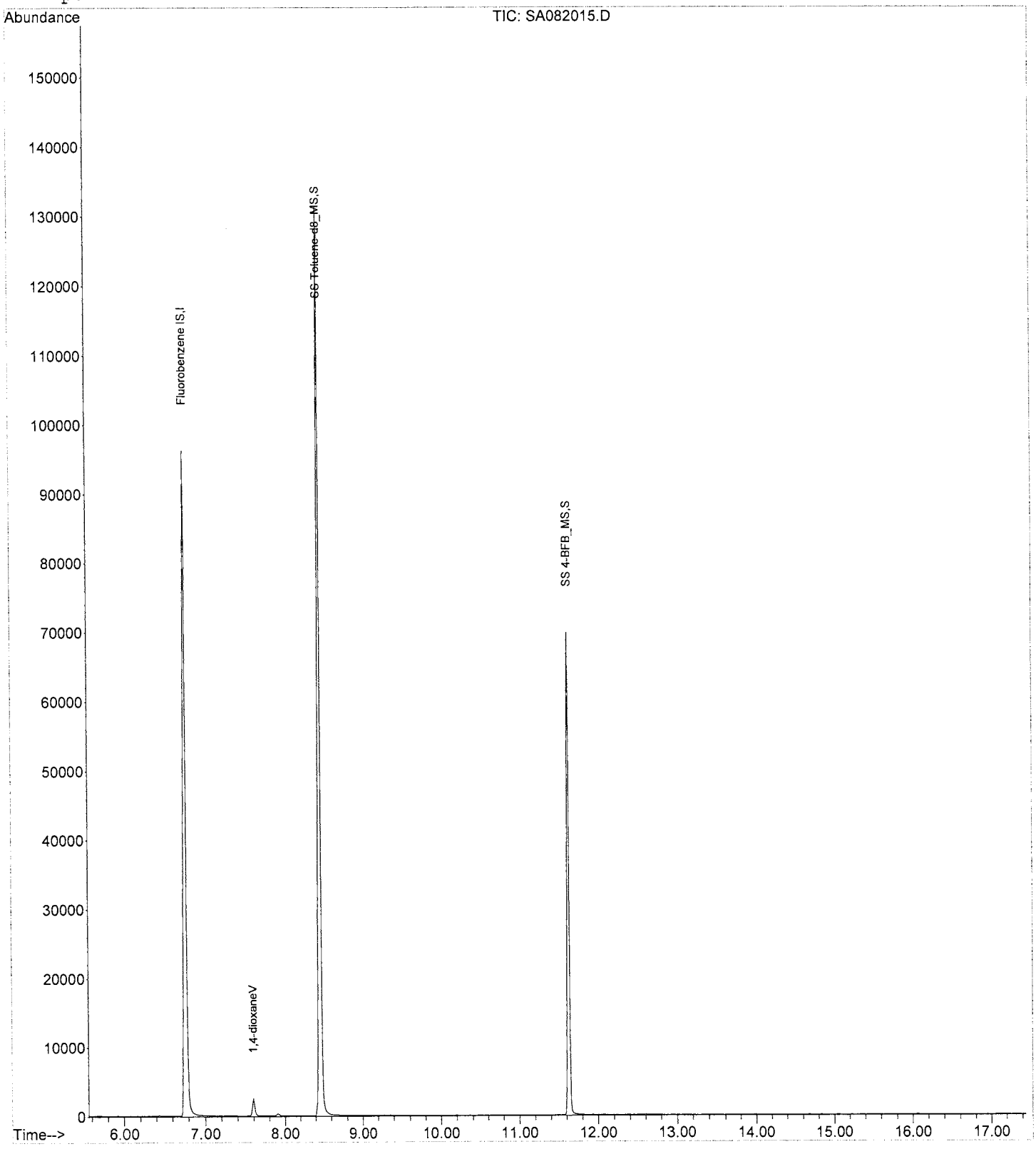
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082015.D 2SIM0510.M Wed Aug 21 08:17:42 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082015.D Vial: 15
Acq On : 20 Aug 2013 8:36 pm Operator: VG
Sample : 123529.09 Inst : VOAMS2
Misc : X10;5mL RR Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:15 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082016.D Vial: 16
Acq On : 20 Aug 2013 9:28 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:13:33 2013 Quant Results File: 2SIM0510.RES

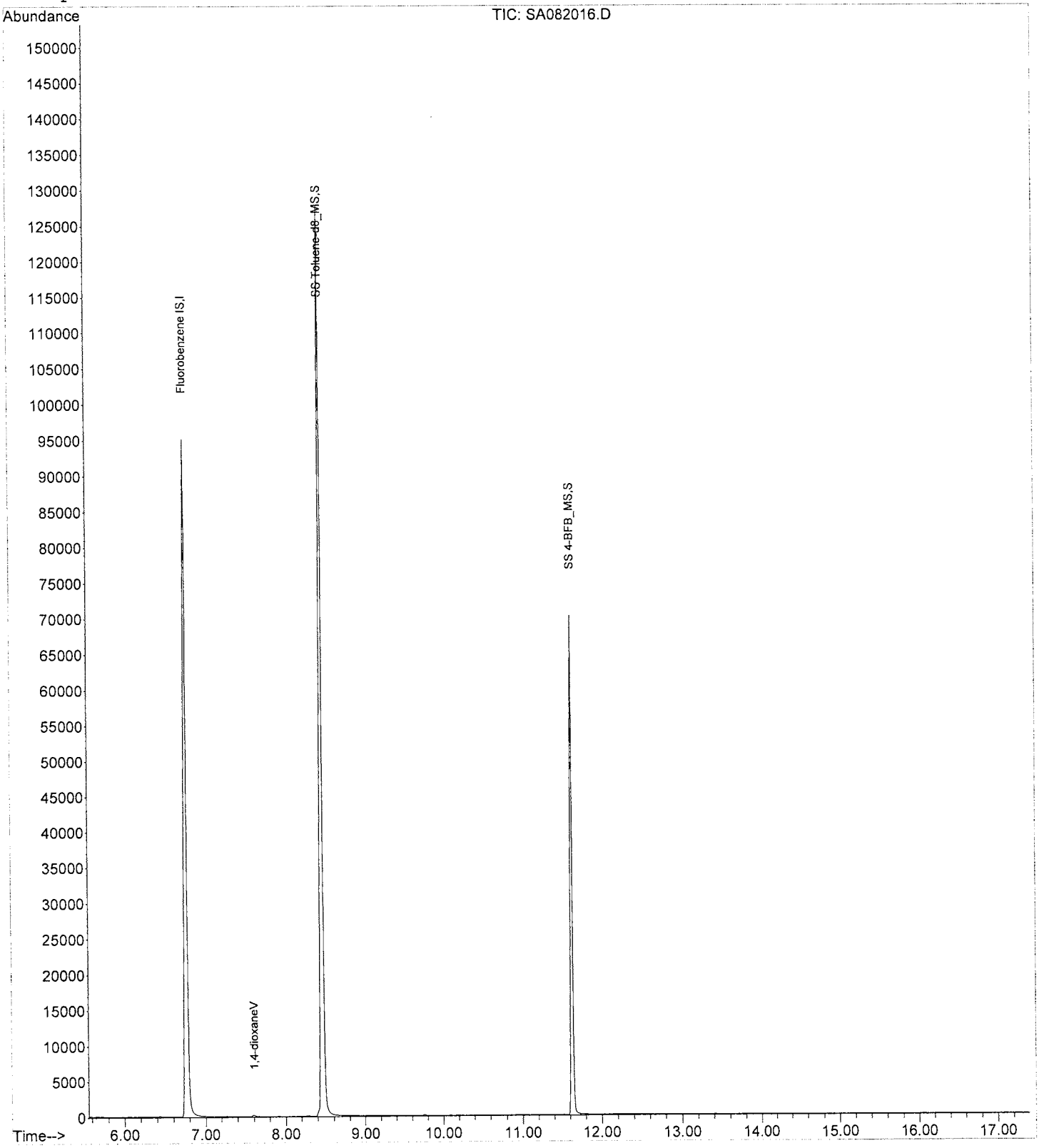
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	172957	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	176379	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.24%			
4) SS 4-BFB_MS	11.62	95	65625	10.20	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.04%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	283	0.390	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082016.D Vial: 16
Acq On : 20 Aug 2013 9:28 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:11 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
professional laboratory & drilling services

123529
Metals Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15	1:10	Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets pos	Sample
63	123649.01 MS	1:1 Sc mets pos	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets pos	Sample
74	123649.06 MS	1:1 Sc mets pos	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets pos	Sample
90	123739.13 MS	1:1 Sc mets pos	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 Mspre		Sample
104	123529.10 Mspre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

Last ~~good~~ passing QC set.
autosampler malfunction
Not Reporting any As, Mn

auto sampler malfunction

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 M$post	Sample
120	123529.20 M$post	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 M$post	Sample
135	123739.03 M$post	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 M$post	Sample
150	123739.19 M$post	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74169.7

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168.7

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, .123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L				Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000	Be	9	5122.086	ug/L	102.44		5000
B	10	0.547369	ug/L				B	10	1.337862	ug/L			
Ag	107	1962.435	ug/L	98.12		2000	Ag	107	4892.98	ug/L	97.86		5000
Ag	109	1948.06	ug/L	97.40		2000	Ag	109	4852.101	ug/L	97.04		5000
Al	27	1786.075	ug/L	89.30		2000	Al	27	4443.011	ug/L	88.86		5000
As	75	2080.388	ug/L	104.02		2000	As	75	5233.348	ug/L	104.67		5000
Ba	138	2107.411	ug/L	105.37		2000	Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L				Bi	209		ug/L			
Br	79		ug/L				Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000	Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L				Cl	35		ug/L			
ClO	51		ug/L				ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000	Cr	53	5487.522	ug/L	109.75		5000
Cu	63	2051.496	ug/L	102.57		2000	Cu	63	4992.413	ug/L	99.85		5000
Cu	65	2047.486	ug/L	102.37		2000	Cu	65	4962.615	ug/L	99.25		5000
Fe	54	2052.748	ug/L	102.64		2000	Fe	54	5075.569	ug/L	101.51		5000
Fe	56	1994.66	ug/L	99.73		2000	Fe	56	5038.408	ug/L	100.77		5000
Fe	57	1953.271	ug/L	97.66		2000	Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		92.208		Ge	72		ug/L		89.389	
Hg	200	0.069113	ug/L				Hg	200	0.163319	ug/L			
Hg	202	0.075451	ug/L				Hg	202	0.157861	ug/L			
Ho	165		ug/L		101.26		Ho	165		ug/L		99.877	
In	115		ug/L		96.089		In	115		ug/L		93.603	
K	39	1912.769	ug/L	95.64		2000	K	39	4629.843	ug/L	92.60		5000
Mg	24	1842.793	ug/L	92.14		2000	Mg	24	4520.756	ug/L	90.42		5000
Mg	25	1644.939	ug/L	82.25		2000	Mg	25	4489.597	ug/L	89.79		5000
Mo	95	2209.171	ug/L	110.46		2000	Mo	95	5631.358	ug/L	112.63		5000
Na	23	1874.281	ug/L	93.71		2000	Na	23	4579.596	ug/L	91.59		5000
Ni	60	2121.476	ug/L	106.07		2000	Ni	60	5242.275	ug/L	104.85		5000
Ni	62	2001.711	ug/L	100.09		2000	Ni	62	4886.569	ug/L	97.73		5000
P	31	-1.88364	ug/L				P	31	-4.44807	ug/L			
Pb	208	2130.234	ug/L	106.51		2000	Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L				Rh	103		ug/L			
S	32		ug/L				S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000	Sb	121	5322.991	ug/L	106.46		5000
Se	82	1988.486	ug/L	99.42		2000	Se	82	5011.986	ug/L	100.24		5000
Se	77	1881.467	ug/L	94.07		2000	Se	77	4637.123	ug/L	92.74		5000
Se	78	1878.803	ug/L	93.94		2000	Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L				Si	28		ug/L			
Tb	159		ug/L				Tb	159		ug/L			
Ti	47	0.078613	ug/L				Ti	47	0.20214	ug/L			
Zn	64	1941.876	ug/L	97.09		2000	Zn	64	4788.644	ug/L	95.77		5000
Zn	66	1964.373	ug/L	98.22		2000	Zn	66	4809.177	ug/L	96.18		5000
Zn	68	2024.79	ug/L	101.19		2001	Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		85.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 92.208
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 96.089
Sb
Sb
Ba
Ba
Tb
Ho 101.260
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
> Ge 89.389
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
> In 93.603
Sb
Sb
Ba
Ba
Tb
> Ho 99.877
Hg
Hg
Tl
Pb
Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 14:32:52	Sample Date/Time:	Wednesday, August 21, 2013 17:20:00
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1	Ag	107	0.11138	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1	Ag	109	0.119796	ug/L		< 1
Al	27	-0.26208	ug/L		< 50	Al	27	-0.096673	ug/L		< 50
As	75	-0.071958	ug/L		< 1	As	75	-0.107506	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1	Ba	137	0.009978	ug/L		< 1
Ba	138	0.000189	ug/L		< 1	Ba	138	0.013973	ug/L		< 1
Be	9	-0.011526	ug/L		< 1	Be	9	-0.013222	ug/L		< 1
Ca	44	1.285014	ug/L		< 50	Ca	44	2.131988	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1	Cd	111	-0.044567	ug/L		< 1
Cd	114	0.007666	ug/L		< 1	Cd	114	-0.038087	ug/L		< 1
Co	59	-0.060007	ug/L		< 1	Co	59	-0.0905	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1	Cr	52	0.017578	ug/L		< 1
Cu	63	0.021397	ug/L		< 1	Cu	63	0.021827	ug/L		< 1
Cu	65	0.029362	ug/L		< 1	Cu	65	0.027876	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50	Fe	54	-4.694121	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50	Fe	56	0.7008	ug/L		< 50
Fe	57	0.03486	ug/L		< 50	Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	98.551		Ge	72		ug/L	92.793	
Hg	200	0.000835	ug/L		< 0.2	Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2	Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	99.821		Ho	165		ug/L	95.506	
In	115		ug/L	97.623		In	115		ug/L	93.097	
K	39	-1.029991	ug/L		< 50	K	39	-2.584433	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50	Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50	Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5	Mn	55	-0.0295	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000	Na	23	-0.140785	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1	Ni	60	0.004618	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1	Ni	62	-0.035148	ug/L		< 1
P	31	-0.685617	ug/L		< 50	P	31	-4.843357	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1	Pb	208	-0.004769	ug/L		< 1
Sb	121	0.072129	ug/L		< 1	Sb	121	-0.001531	ug/L		< 1
Sb	123	0.074335	ug/L		< 1	Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	98.465		Sc	45		ug/L	92.391	
Se	82	0.043643	ug/L		< 1	Se	82	-0.033791	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1	Tl	205	-0.068961	ug/L		< 1
V	51	0.220601	ug/L		< 1	V	51	0.347795	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5	Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 18:51:22	Sample Date/Time:	Wednesday, August 21, 2013 20:22:45
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1	Ag	107	0.409088	ug/L		< 1
Ag	109	0.382578	ug/L		< 1	Ag	109	0.462557	ug/L		< 1
Al	27	-0.04987	ug/L		< 50	Al	27	-0.058166	ug/L		< 50
As	75	-0.029484	ug/L		< 1	As	75	0.021676	ug/L		< 1
Ba	137	0.00932	ug/L		< 1	Ba	137	0.012484	ug/L		< 1
Ba	138	0.013228	ug/L		< 1	Ba	138	0.01333	ug/L		< 1
Be	9	-0.010209	ug/L		< 1	Be	9	-0.001978	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50	Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1	Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1	Cd	114	-0.07032	ug/L		< 1
Co	59	-0.098027	ug/L		< 1	Co	59	-0.099707	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1	Cr	52	-0.090933	ug/L		< 1
Cu	63	0.069722	ug/L		< 1	Cu	63	0.082017	ug/L		< 1
Cu	65	0.073293	ug/L		< 1	Cu	65	0.073695	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50	Fe	54	-6.674499	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50	Fe	56	-55.093425	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50	Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	82.019		Ge	72		ug/L	83.541	
Hg	200	0.002538	ug/L		< 0.2	Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2	Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	95.831		Ho	165		ug/L	97.845	
In	115		ug/L	88.586		In	115		ug/L	89.505	
K	39	-5.938476	ug/L		< 50	K	39	-6.379123	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50	Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50	Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5	Mn	55	-0.022123	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000	Na	23	0.056546	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1	Ni	60	0.008771	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1	Ni	62	-0.024023	ug/L		< 1
P	31	0.144733	ug/L		< 50	P	31	-2.824856	ug/L		< 50
Pb	208	0.003305	ug/L		< 1	Pb	208	0.008953	ug/L		< 1
Sb	121	0.546547	ug/L		< 1	Sb	121	0.723441	ug/L		< 1
Sb	123	0.557478	ug/L		< 1	Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	83.518		Sc	45		ug/L	82.676	
Se	82	-0.069326	ug/L		< 1	Se	82	0.060139	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1	Tl	205	-0.045467	ug/L		< 1
V	51	-0.169861	ug/L		< 1	V	51	-0.214544	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5	Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 21:54:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.153846	ug/L		< 1
Ag	109	0.15035	ug/L		< 1
Al	27	0.013772	ug/L		< 50
As	75	0.37065	ug/L		< 1
Ba	137	0.01947	ug/L		< 1
Ba	138	0.021745	ug/L		< 1
Be	9	0.004878	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1
Co	59	-0.10566	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1
Cu	63	0.163582	ug/L		< 1
Cu	65	0.161789	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50
Fe	57	2.66129	ug/L		< 50
Ge	72		ug/L	85.734	
Hg	200	0.007564	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2
Ho	165		ug/L	96.63	
In	115		ug/L	90.015	
K	39	-3.247278	ug/L		< 50
Mg	24	0.269698	ug/L		< 50
Mg	25	0.317386	ug/L		< 50
Mn	55	0.018114	ug/L		< 5
Na	23	4.750616	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1
P	31	-0.93812	ug/L		< 50
Pb	208	0.033931	ug/L		< 1
Sb	121	0.653921	ug/L		< 1
Sb	123	0.671316	ug/L		< 1
Sc	45		ug/L	85.08	
Se	82	0.575163	ug/L		< 1
Tl	205	0.003967	ug/L		< 1
V	51	-0.280011	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 23:25:34
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.155097	ug/L		< 1
Ag	109	0.156398	ug/L		< 1
Al	27	0.049873	ug/L		< 50
As	75	0.319848	ug/L		< 1
Ba	137	0.01958	ug/L		< 1
Ba	138	0.021384	ug/L		< 1
Be	9	0.004036	ug/L		< 1
Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.063347	ug/L		< 1
Co	59	-0.109626	ug/L		< 1
Cr	52	-0.075727	ug/L		< 1
Cu	63	0.09756	ug/L		< 1
Cu	65	0.094357	ug/L		< 1
Fe	54	-2.050464	ug/L		< 50
Fe	56	-4.061431	ug/L		< 50
Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	84.343	
Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	95.521	
In	115		ug/L	89.464	
K	39	-3.193172	ug/L		< 50
Mg	24	0.229747	ug/L		< 50
Mg	25	0.143982	ug/L		< 50
Mn	55	-0.007129	ug/L		< 5
Na	23	4.091156	ug/L		< 5000
Ni	60	0.014038	ug/L		< 1
Ni	62	-0.037908	ug/L		< 1
P	31	-3.357474	ug/L		< 50
Pb	208	0.029733	ug/L		< 1
Sb	121	1.653256	ug/L		< 1
Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.39	
Se	82	0.458721	ug/L		< 1
Tl	205	-0.01207	ug/L		< 1
V	51	-0.30454	ug/L		< 1
Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 00:57:05
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.152331	ug/L		< 1
Ag	109	0.15027	ug/L		< 1
Al	27	-0.03779	ug/L		< 50
As	75	0.057719	ug/L		< 1
Ba	137	0.010942	ug/L		< 1
Ba	138	0.015616	ug/L		< 1
Be	9	-0.011321	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1
Co	59	-0.115011	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1
Cu	63	0.036833	ug/L		< 1
Cu	65	0.037452	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50
Fe	57	1.44184	ug/L		< 50
Ge	72		ug/L	82.371	
Hg	200	0.001505	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2
Ho	165		ug/L	98.75	
In	115		ug/L	90.548	
K	39	-3.35505	ug/L		< 50
Mg	24	0.204655	ug/L		< 50
Mg	25	0.12711	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5
Na	23	2.807046	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1
P	31	-0.22554	ug/L		< 50
Pb	208	0.002268	ug/L		< 1
Sb	121	0.174891	ug/L		< 1
Sb	123	0.17576	ug/L		< 1
Sc	45		ug/L	81.683	
Se	82	0.112483	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1
V	51	-0.328191	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 02:28:35
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.288914	ug/L		< 1
Ag	109	1.28419	ug/L		< 1
Al	27	0.044205	ug/L		< 50
As	75	0.225436	ug/L		< 1
Ba	137	0.018145	ug/L		< 1
Ba	138	0.017597	ug/L		< 1
Be	9	-0.003792	ug/L		< 1
Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.062216	ug/L		< 1
Co	59	-0.110973	ug/L		< 1
Cr	52	-0.064696	ug/L		< 1
Cu	63	0.072073	ug/L		< 1
Cu	65	0.06893	ug/L		< 1
Fe	54	-3.680317	ug/L		< 50
Fe	56	-47.09427	ug/L		< 50
Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	80.61	
Hg	200	0.005209	ug/L		< 0.2
Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	97.019	
In	115		ug/L	88.977	
K	39	-3.434466	ug/L		< 50
Mg	24	0.148344	ug/L		< 50
Mg	25	0.037963	ug/L		< 50
Mn	55	0.008374	ug/L		< 5
Na	23	5.300602	ug/L		< 5000
Ni	60	0.012988	ug/L		< 1
Ni	62	-0.005112	ug/L		< 1
P	31	-2.730091	ug/L		< 50
Pb	208	0.018434	ug/L		< 1
Sb	121	1.521021	ug/L		< 1
Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	80.611	
Se	82	0.174458	ug/L		< 1
Tl	205	-0.053724	ug/L		< 1
V	51	-0.309052	ug/L		< 1
Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 04:00:09
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.109538	ug/L		< 1
Ag	109	0.107885	ug/L		< 1
Al	27	-0.008883	ug/L		< 50
As	75	0.127157	ug/L		< 1
Ba	137	0.016023	ug/L		< 1
Ba	138	0.016167	ug/L		< 1
Be	9	-0.007956	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1
Co	59	-0.114875	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1
Cu	63	0.032424	ug/L		< 1
Cu	65	0.030497	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50
Ge	72		ug/L	80.444	
Hg	200	0.001923	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2
Ho	165		ug/L	95.511	
In	115		ug/L	88.955	
K	39	-3.001431	ug/L		< 50
Mg	24	0.309671	ug/L		< 50
Mg	25	0.298606	ug/L		< 50
Mn	55	0.023224	ug/L		< 5
Na	23	7.000406	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1
P	31	-0.44829	ug/L		< 50
Pb	208	0.001211	ug/L		< 1
Sb	121	0.079278	ug/L		< 1
Sb	123	0.083749	ug/L		< 1
Sc	45		ug/L	81.009	
Se	82	0.129524	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1
V	51	-0.509723	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 05:31:49
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.005663	ug/L		< 1
Ag	109	0.010628	ug/L		< 1
Al	27	-0.502926	ug/L		< 50
As	75	1.129123	ug/L		< 1
Ba	137	-0.010148	ug/L		< 1
Ba	138	-0.008275	ug/L		< 1
Be	9	-0.015683	ug/L		< 1
Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.039959	ug/L		< 1
Co	59	0.012542	ug/L		< 1
Cr	52	-0.491944	ug/L		< 1
Cu	63	-0.001465	ug/L		< 1
Cu	65	-0.006339	ug/L		< 1
Fe	54	284.471578	ug/L		< 50
Fe	56	-129.55362	ug/L		< 50
Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	129.949	
Hg	200	-0.003001	ug/L		< 0.2
Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	141.908	
In	115		ug/L	125.817	
K	39	-31.826232	ug/L		< 50
Mg	24	-0.136734	ug/L		< 50
Mg	25	-0.19183	ug/L		< 50
Mn	55	0.061396	ug/L		< 5
Na	23	1.090327	ug/L		< 5000
Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.076872	ug/L		< 1
P	31	26.141474	ug/L		< 50
Pb	208	-0.007794	ug/L		< 1
Sb	121	0.002988	ug/L		< 1
Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	141.513	
Se	82	-0.152989	ug/L		< 1
Tl	205	-0.081941	ug/L		< 1
V	51	-2.241279	ug/L		< 1
Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 07:03:30
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1
Al	27	-0.524824	ug/L		< 50
As	75	1.098666	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1
Be	9	-0.016149	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1
Co	59	-0.033016	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1
Fe	54	318.31098	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50
Ge	72		ug/L	135.534	
Hg	200	-0.00305	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2
Ho	165		ug/L	135.791	
In	115		ug/L	133.042	
K	39	-33.575308	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50
Mn	55	0.05205	ug/L		< 5
Na	23	0.12898	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1
P	31	28.414772	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1
Sc	45		ug/L	135.399	
Se	82	-0.162972	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1
V	51	-2.302445	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 08:35:16
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524517	ug/L		< 50
As	75	1.054567	ug/L		< 1
Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.009079	ug/L		< 1
Be	9	-0.014621	ug/L		< 1
Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.090179	ug/L		< 1
Co	59	-0.078269	ug/L		< 1
Cr	52	-0.47418	ug/L		< 1
Cu	63	0.0013	ug/L		< 1
Cu	65	-0.003215	ug/L		< 1
Fe	54	319.135316	ug/L		< 50
Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.134	
Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	140.956	
In	115		ug/L	144.07	
K	39	-32.805094	ug/L		< 50
Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.229129	ug/L		< 50
Mn	55	0.048782	ug/L		< 5
Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.061371	ug/L		< 1
P	31	27.860573	ug/L		< 50
Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	130.84	
Se	82	-0.404338	ug/L		< 1
Tl	205	-0.093371	ug/L		< 1
V	51	-2.29718	ug/L		< 1
Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 09:33:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.095298	ug/L		< 1
Ag	109	0.094355	ug/L		< 1
Al	27	0.075903	ug/L		< 50
As	75	-0.03098	ug/L		< 1
Ba	137	0.017392	ug/L		< 1
Ba	138	0.020186	ug/L		< 1
Be	9	-0.010611	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1
Co	59	-0.137349	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1
Cu	63	0.039414	ug/L		< 1
Cu	65	0.031906	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50
Ge	72		ug/L	89.373	
Hg	200	0.000491	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2
Ho	165		ug/L	98.89	
In	115		ug/L	92.57	
K	39	-4.157267	ug/L		< 50
Mg	24	0.574241	ug/L		< 50
Mg	25	0.636205	ug/L		< 50
Mn	55	0.021759	ug/L		< 5
Na	23	2.780659	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1
P	31	-0.173755	ug/L		< 50
Pb	208	0.001538	ug/L		< 1
Sb	121	0.078009	ug/L		< 1
Sb	123	0.087634	ug/L		< 1
Sc	45		ug/L	85.875	
Se	82	0.043633	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1
V	51	-0.596453	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 11:24:19
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.090915	ug/L		< 1
Ag	109	0.09819	ug/L		< 1
Al	27	0.047217	ug/L		< 50
As	75	-0.030436	ug/L		< 1
Ba	137	0.016176	ug/L		< 1
Ba	138	0.020659	ug/L		< 1
Be	9	-0.011288	ug/L		< 1
Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.082977	ug/L		< 1
Co	59	-0.147596	ug/L		< 1
Cr	52	-0.06319	ug/L		< 1
Cu	63	0.038297	ug/L		< 1
Cu	65	0.034062	ug/L		< 1
Fe	54	-1.456751	ug/L		< 50
Fe	56	-0.025537	ug/L		< 50
Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	86.417	
Hg	200	0.00115	ug/L		< 0.2
Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	100.905	
In	115		ug/L	92.826	
K	39	-0.314828	ug/L		< 50
Mg	24	0.573024	ug/L		< 50
Mg	25	0.393241	ug/L		< 50
Mn	55	0.02926	ug/L		< 5
Na	23	4.257669	ug/L		< 5000
Ni	60	0.00676	ug/L		< 1
Ni	62	-0.003664	ug/L		< 1
P	31	0.06278	ug/L		< 50
Pb	208	0.000639	ug/L		< 1
Sb	121	0.071262	ug/L		< 1
Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.343	
Se	82	0.023146	ug/L		< 1
Tl	205	-0.073176	ug/L		< 1
V	51	-0.366388	ug/L		< 1
Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 13:43:03
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1
Ag	109	0.640631	ug/L		< 1
Al	27	0.09732	ug/L		< 50
As	75	0.128392	ug/L		< 1
Ba	137	0.023246	ug/L		< 1
Ba	138	0.021737	ug/L		< 1
Be	9	-0.002378	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1
Co	59	-0.14108	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1
Cu	63	0.072079	ug/L		< 1
Cu	65	0.082805	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50
Fe	57	2.699095	ug/L		< 50
Ge	72		ug/L	79.059	
Hg	200	0.003667	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2
Ho	165		ug/L	92.372	
In	115		ug/L	86.481	
K	39	-0.06939	ug/L		< 50
Mg	24	0.658856	ug/L		< 50
Mg	25	0.529086	ug/L		< 50
Mn	55	0.027991	ug/L		< 5
Na	23	4.666609	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1
P	31	0.073182	ug/L		< 50
Pb	208	0.015682	ug/L		< 1
Sb	121	1.267409	ug/L		< 1
Sb	123	1.287874	ug/L		< 1
Sc	45		ug/L	76.201	
Se	82	0.150628	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1
V	51	-0.220549	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 14:35:14
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.222791	ug/L		< 1
Ag	109	0.224883	ug/L		< 1
Al	27	0.500197	ug/L		< 50
As	75	-0.06713	ug/L		< 1
Ba	137	0.017237	ug/L		< 1
Ba	138	0.021829	ug/L		< 1
Be	9	-0.010387	ug/L		< 1
Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.085964	ug/L		< 1
Co	59	-0.146151	ug/L		< 1
Cr	52	-0.045782	ug/L		< 1
Cu	63	0.041847	ug/L		< 1
Cu	65	0.035843	ug/L		< 1
Fe	54	4.533522	ug/L		< 50
Fe	56	-35.057302	ug/L		< 50
Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.142	
Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	93.451	
In	115		ug/L	87.75	
K	39	0.959589	ug/L		< 50
Mg	24	0.990964	ug/L		< 50
Mg	25	0.888904	ug/L		< 50
Mn	55	0.014971	ug/L		< 5
Na	23	5.109504	ug/L		< 5000
Ni	60	0.00981	ug/L		< 1
Ni	62	-0.00789	ug/L		< 1
P	31	0.284032	ug/L		< 50
Pb	208	0.007423	ug/L		< 1
Sb	121	0.253468	ug/L		< 1
Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.542	
Se	82	0.06488	ug/L		< 1
Tl	205	-0.051882	ug/L		< 1
V	51	-0.227237	ug/L		< 1
Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929	1	
Hg	202	1.040778	ug/L	104.078	1	
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662	1000	
Mg	24	103.781446	ug/L	103.368	100	
Mg	25	101.910134	ug/L	101.504	100	
Mn	55	101.057709	ug/L	100.455	100	
Na	23	100.277066	ug/L	98.795	100	
Ni	60	102.584982	ug/L	102.176	100	
Ni	62	102.933276	ug/L	102.523	100	
Pb	208	99.694126	ug/L	98.903	100	
Sb	121	100.398697	ug/L	99.999	100	
Sb	123	100.622444	ug/L	100.222	100	
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043	100	
Tl	205	99.216104	ug/L	99.515	100	
V	51	101.059419	ug/L	100.059	100	
Zn	64	107.272953	ug/L	106.846	100	

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593	1	
Hg	202	1.040768	ug/L	104.077	1	
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252	1000	
Mg	24	98.319154	ug/L	97.927	100	
Mg	25	96.031291	ug/L	95.649	100	
Mn	55	98.959577	ug/L	98.369	100	
Na	23	96.168791	ug/L	94.748	100	
Ni	60	100.55402	ug/L	100.153	100	
Ni	62	102.661248	ug/L	102.252	100	
Pb	208	98.323004	ug/L	97.543	100	
Sb	121	99.99654	ug/L	99.598	100	
Sb	123	99.453167	ug/L	99.057	100	
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583	100	
Tl	205	97.452476	ug/L	97.746	100	
V	51	101.271779	ug/L	100.269	100	
Zn	64	109.836832	ug/L	109.399	100	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4	10000	
Mg	24	9880.11872	ug/L	98.801	10000	
Mg	25	9759.45121	ug/L	97.595	10000	
Na	23	9883.02508	ug/L	98.83	10000	
P	31	9713.82327	ug/L	97.138	10000	
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896	10000	
Mg	24	8956.63881	ug/L	89.566	10000	
Mg	25	8963.69564	ug/L	89.637	10000	
Na	23	9024.94466	ug/L	90.249	10000	
P	31	9411.4984	ug/L	94.115	10000	
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 14:52:24
Sample Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 17:33:02
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1	Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.528061	ug/L	107.807		31.1	Ag	109	33.401584	ug/L	107.401		31.1
Al	27	175.79957	ug/L	108.518		162	Al	27	170.207121	ug/L	105.066		162
As	75	44.004738	ug/L	108.654		40.5	As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.819208	ug/L	101.974		26.3	Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.677018	ug/L	108.212		53.3	Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.935119	ug/L	101.525		48.2	Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.027357	ug/L	101.717		48.2	Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.704507	ug/L	108.555		24.6	Co	59	26.02674	ug/L	105.8		24.6
Cr	52	12.125672	ug/L	105.441		11.5	Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.535617	ug/L	105.484		28	Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.324751	ug/L	104.731		28	Cu	65	29.265666	ug/L	104.52		28
Fe	54	49.158941	ug/L	110.718		44.4	Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	48.011563	ug/L	108.134		44.4	Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		96.994		Ge	72		ug/L		90.92	
Hg	200	1.073622	ug/L	107.362		1	Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.06403	ug/L	106.403		1	Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		98.773		Ho	165		ug/L		95.67	
In	115		ug/L		97.432		In	115		ug/L		91.805	
Mn	55	156.696069	ug/L	105.876		148	Mn	55	152.821227	ug/L	103.258		148
Ni	60	37.877474	ug/L	104.924		36.1	Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.770046	ug/L	104.626		36.1	Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.241661	ug/L	102.366		137	Pb	208	140.83278	ug/L	102.798		137
Sb	121	77.130222	ug/L	120.894		63.8	Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	78.14608	ug/L	122.486		63.8	Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		97.791		Sc	45		ug/L		89.874	
Se	82	170.349456	ug/L	105.154		162	Se	82	163.258818	ug/L	100.777		162
Tl	205	29.143939	ug/L	104.834		27.8	Tl	205	28.779001	ug/L	103.522		27.8
V	51	146.163334	ug/L	102.932		142	V	51	145.251347	ug/L	102.29		142
Zn	64	136.871927	ug/L	108.629		126	Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922	1	
Hg	202	1.082203	ug/L	108.22	1	
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119		1000
Mg	24	99.317125	ug/L	98.921		100
Mg	25	97.694613	ug/L	97.305		100
Mn	55	97.083947	ug/L	96.505		100
Na	23	97.926622	ug/L	96.479		100
Ni	60	99.931756	ug/L	99.534		100
Ni	62	101.122532	ug/L	100.72		100
Pb	208	104.220792	ug/L	103.394		100
Sb	121	103.564096	ug/L	103.151		100
Sb	123	105.370593	ug/L	104.951		100
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647		100
Tl	205	102.083183	ug/L	102.39		100
V	51	99.948537	ug/L	98.959		100
Zn	64	111.868594	ug/L	111.423		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489	1	
Hg	202	1.036762	ug/L	103.676	1	
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214		1000
Mg	24	97.583939	ug/L	97.195		100
Mg	25	96.371483	ug/L	95.988		100
Mn	55	96.222644	ug/L	95.649		100
Na	23	94.867561	ug/L	93.466		100
Ni	60	99.787099	ug/L	99.39		100
Ni	62	100.716791	ug/L	100.316		100
Pb	208	101.118943	ug/L	100.316		100
Sb	121	101.603508	ug/L	101.199		100
Sb	123	101.96027	ug/L	101.554		100
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683		100
Tl	205	99.868488	ug/L	100.169		100
V	51	99.064993	ug/L	98.084		100
Zn	64	110.300389	ug/L	109.861		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339		10000
Mg	24	9107.17615	ug/L	91.072		10000
Mg	25	9113.08412	ug/L	91.131		10000
Na	23	9142.69945	ug/L	91.427		10000
P	31	9237.4397	ug/L	92.374		10000
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23		10000
Mg	24	9115.36461	ug/L	91.154		10000
Mg	25	9076.8622	ug/L	90.769		10000
Na	23	9186.42576	ug/L	91.864		10000
P	31	9240.66309	ug/L	92.407		10000
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 19:04:23
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1
Ag	109	32.243043	ug/L	103.675		31.1
Al	27	169.877405	ug/L	104.863		162
As	75	43.649422	ug/L	107.776		40.5
Ba	137	26.539059	ug/L	100.909		26.3
Be	9	58.537574	ug/L	109.827		53.3
Cd	111	47.686438	ug/L	98.935		48.2
Cd	114	48.50097	ug/L	100.624		48.2
Co	59	24.967966	ug/L	101.496		24.6
Cr	52	11.295588	ug/L	98.223		11.5
Cu	63	28.509718	ug/L	101.82		28
Cu	65	28.505075	ug/L	101.804		28
Fe	54	36.488238	ug/L	82.181		44.4
Fe	57	37.63998	ug/L	84.775		44.4
Ge	72		ug/L		83.794	
Hg	200	1.079841	ug/L	107.984		1
Hg	202	1.075676	ug/L	107.568		1
Ho	165		ug/L		94.617	
In	115		ug/L		89.825	
Mn	55	146.325811	ug/L	98.869		148
Ni	60	35.354291	ug/L	97.934		36.1
Ni	62	35.812885	ug/L	99.205		36.1
Pb	208	142.748232	ug/L	104.196		137
Sb	121	78.438027	ug/L	122.944		63.8
Sb	123	79.381895	ug/L	124.423		63.8
Sc	45		ug/L		85.798	
Se	82	168.196615	ug/L	103.825		162
Tl	205	29.939774	ug/L	107.697		27.8
V	51	138.465296	ug/L	97.511		142
Zn	64	132.284935	ug/L	104.988		126

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 20:35:46
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.56866	ug/L	104.672		162
As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	47.957987	ug/L	99.498		48.2
Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	29.183414	ug/L	104.226		28
Cu	65	29.283253	ug/L	104.583		28
Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		82.957	
Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		96.96	
In	115		ug/L		90.311	
Mn	55	149.386866	ug/L	100.937		148
Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	139.712907	ug/L	101.98		137
Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		83.441	
Se	82	170.175299	ug/L	105.046		162
Tl	205	28.521962	ug/L	102.597		27.8
V	51	142.922273	ug/L	100.649		142
Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID:	QC Std 5	Sample ID:	QC Std 5
ıple Date/Time:	Thursday, August 22, 2013 01:10:06	Sample Date/Time:	Thursday, August 22, 2013 02:41:37
ıple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ıcentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
ılyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
	107	32.085084	ug/L	103.167		31.1	Ag	107	32.40122	ug/L	104.184		31.1
	109	32.283397	ug/L	103.805		31.1	Ag	109	32.681402	ug/L	105.085		31.1
	27	176.628105	ug/L	109.03		162	Al	27	175.971114	ug/L	108.624		162
	75	43.800976	ug/L	108.151		40.5	As	75	43.433784	ug/L	107.244		40.5
	137	26.837539	ug/L	102.044		26.3	Ba	137	26.985416	ug/L	102.606		26.3
	9	61.614851	ug/L	115.6		53.3	Be	9	61.712462	ug/L	115.783		53.3
	111	47.430034	ug/L	98.403		48.2	Cd	111	47.380861	ug/L	98.301		48.2
ı	114	48.746097	ug/L	101.133		48.2	Cd	114	48.585557	ug/L	100.8		48.2
)	59	26.280712	ug/L	106.832		24.6	Co	59	26.170913	ug/L	106.386		24.6
	52	12.015753	ug/L	104.485		11.5	Cr	52	11.920527	ug/L	103.657		11.5
ı	63	29.462402	ug/L	105.223		28	Cu	63	28.915989	ug/L	103.271		28
ı	65	29.259493	ug/L	104.498		28	Cu	65	29.162714	ug/L	104.153		28
ə	54	44.033776	ug/L	99.175		44.4	Fe	54	44.487941	ug/L	100.198		44.4
ə	57	43.567683	ug/L	98.125		44.4	Fe	57	42.710078	ug/L	96.194		44.4
e	72		ug/L		82.707		Ge	72		ug/L		81.216	
g	200	1.057705	ug/L	105.77		1	Hg	200	1.026397	ug/L	102.64		1
g	202	1.069887	ug/L	106.989		1	Hg	202	1.042264	ug/L	104.226		1
lo	165		ug/L		96.744		Ho	165		ug/L		96.797	
ı	115		ug/L		90.217		In	115		ug/L		88.977	
Mn	55	156.302321	ug/L	105.61		148	Mn	55	155.899113	ug/L	105.337		148
Ni	60	37.297646	ug/L	103.318		36.1	Ni	60	36.847545	ug/L	102.071		36.1
Ni	62	37.56515	ug/L	104.059		36.1	Ni	62	36.750603	ug/L	101.802		36.1
Pb	208	141.740015	ug/L	103.46		137	Pb	208	140.681713	ug/L	102.687		137
Sb	121	78.450993	ug/L	122.964		63.8	Sb	121	78.164808	ug/L	122.515		63.8
Sb	123	78.806471	ug/L	123.521		63.8	Sb	123	79.249706	ug/L	124.216		63.8
Sc	45		ug/L		79.964		Sc	45		ug/L		81.057	
Se	82	169.290777	ug/L	104.5		162	Se	82	169.545511	ug/L	104.658		162
Tl	205	28.847121	ug/L	103.767		27.8	Tl	205	28.82577	ug/L	103.69		27.8
V	51	147.903791	ug/L	104.158		142	V	51	146.069039	ug/L	102.866		142
Zn	64	138.748402	ug/L	110.118		126	Zn	64	136.170963	ug/L	108.072		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905		1
Hg	202	1.034894	ug/L	103.489		1
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

mple ID:	QC Std 5	Sample ID:	QC Std 5
mple Date/Time:	Thursday, August 22, 2013 04:13:10	Sample Date/Time:	Thursday, August 22, 2013 05:44:51
mple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ncentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
alyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
g	107	31.910435	ug/L	102.606		31.1	Ag	107	-0.002583	ug/L	-0.008		31.1
g	109	32.451735	ug/L	104.346		31.1	Ag	109	-0.001163	ug/L	-0.004		31.1
	27	176.978661	ug/L	109.246		162	Al	27	-0.512186	ug/L	-0.316		162
s	75	43.693437	ug/L	107.885		40.5	As	75	1.099476	ug/L	2.715		40.5
a	137	26.960732	ug/L	102.512		26.3	Ba	137	-0.009982	ug/L	-0.038		26.3
e	9	63.399941	ug/L	118.949		53.3	Be	9	-0.016701	ug/L	-0.031		53.3
d	111	48.186725	ug/L	99.972		48.2	Cd	111	-0.043471	ug/L	-0.09		48.2
d	114	48.776891	ug/L	101.197		48.2	Cd	114	-0.050387	ug/L	-0.105		48.2
o	59	26.421149	ug/L	107.403		24.6	Co	59	0.008112	ug/L	0.033		24.6
r	52	11.97374	ug/L	104.119		11.5	Cr	52	-0.495766	ug/L	-4.311		11.5
u	63	29.055703	ug/L	103.77		28	Cu	63	-0.000159	ug/L	-0.001		28
u	65	29.197034	ug/L	104.275		28	Cu	65	-0.005692	ug/L	-0.02		28
e	54	43.74309	ug/L	98.52		44.4	Fe	54	291.990802	ug/L	657.637		44.4
e	57	41.962856	ug/L	94.511		44.4	Fe	57	-21.372424	ug/L	-48.136		44.4
e	72		ug/L		80.709		Ge	72		ug/L		132.416	
g	200	1.069262	ug/L	106.926		1	Hg	200	-0.003091	ug/L	-0.309		1
g	202	1.056357	ug/L	105.636		1	Hg	202	-0.003251	ug/L	-0.325		1
o	165		ug/L		95.83		Ho	165		ug/L		126.741	
n	115		ug/L		88.442		In	115		ug/L		145.25	
n	55	156.943489	ug/L	106.043		148	Mn	55	0.053751	ug/L	0.036		148
i	60	37.048042	ug/L	102.626		36.1	Ni	60	-0.011788	ug/L	-0.033		36.1
i	62	36.398976	ug/L	100.828		36.1	Ni	62	-0.058488	ug/L	-0.162		36.1
b	208	141.718411	ug/L	103.444		137	Pb	208	-0.007995	ug/L	-0.006		137
b	121	78.316181	ug/L	122.753		63.8	Sb	121	-0.004589	ug/L	-0.007		63.8
b	123	78.931664	ug/L	123.717		63.8	Sb	123	-0.002685	ug/L	-0.004		63.8
c	45		ug/L		80.835		Sc	45		ug/L		143.741	
e	82	171.023934	ug/L	105.57		162	Se	82	-0.047835	ug/L	-0.03		162
l	205	28.771042	ug/L	103.493		27.8	Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	146.166037	ug/L	102.934		142	V	51	-2.27818	ug/L	-1.604		142
n	64	138.002467	ug/L	109.526		126	Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282	1	
Hg	202	-0.003181	ug/L	-0.318	1	
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406	1000	
Mg	24	-0.174617	ug/L	-0.174	100	
Mg	25	-0.247938	ug/L	-0.247	100	
Mn	55	0.05222	ug/L	0.052	100	
Na	23	0.032718	ug/L	0.032	100	
Ni	60	-0.011779	ug/L	-0.012	100	
Ni	62	-0.061766	ug/L	-0.062	100	
Pb	208	-0.011789	ug/L	-0.012	100	
Sb	121	-0.014839	ug/L	-0.015	100	
Sb	123	-0.014279	ug/L	-0.014	100	
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152	100	
Tl	205	-0.096793	ug/L	-0.097	100	
V	51	-2.312245	ug/L	-2.289	100	
Zn	64	-1.422791	ug/L	-1.417	100	

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295	1	
Hg	202	-0.002419	ug/L	-0.242	1	
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002	1000	
Mg	24	-0.166032	ug/L	-0.165	100	
Mg	25	-0.22414	ug/L	-0.223	100	
Mn	55	0.061606	ug/L	0.061	100	
Na	23	-0.358021	ug/L	-0.353	100	
Ni	60	-0.011193	ug/L	-0.011	100	
Ni	62	-0.060722	ug/L	-0.06	100	
Pb	208	-0.011966	ug/L	-0.012	100	
Sb	121	-0.018787	ug/L	-0.019	100	
Sb	123	-0.01744	ug/L	-0.017	100	
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294	100	
Tl	205	-0.09285	ug/L	-0.093	100	
V	51	-2.221141	ug/L	-2.199	100	
Zn	64	-1.411079	ug/L	-1.405	100	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344	10000	
Mg	24	-0.161123	ug/L	-0.002	10000	
Mg	25	-0.20827	ug/L	-0.002	10000	
Na	23	-0.132712	ug/L	-0.001	10000	
P	31	22.784733	ug/L	0.228	10000	
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338	10000	
Mg	24	-0.17897	ug/L	-0.002	10000	
Mg	25	-0.22029	ug/L	-0.002	10000	
Na	23	-0.508698	ug/L	-0.005	10000	
P	31	22.801151	ug/L	0.228	10000	
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 07:16:32
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 08:48:17
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143		1
Hg	202	1.052693	ug/L	105.269		1
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067		1000
Mg	24	105.163942	ug/L	104.745		100
Mg	25	104.562376	ug/L	104.146		100
Mn	55	103.439706	ug/L	102.823		100
Na	23	107.064006	ug/L	105.482		100
Ni	60	103.416914	ug/L	103.005		100
Ni	62	104.626279	ug/L	104.209		100
Pb	208	102.222971	ug/L	101.412		100
Sb	121	105.67022	ug/L	105.249		100
Sb	123	106.381046	ug/L	105.957		100
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517		100
Tl	205	102.761032	ug/L	103.07		100
V	51	102.90077	ug/L	101.882		100
Zn	64	114.087363	ug/L	113.633		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757		1
Hg	202	1.034154	ug/L	103.415		1
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132		1000
Mg	24	104.129898	ug/L	103.715		100
Mg	25	103.655906	ug/L	103.243		100
Mn	55	104.253269	ug/L	103.631		100
Na	23	106.903493	ug/L	105.324		100
Ni	60	105.713366	ug/L	105.292		100
Ni	62	104.35735	ug/L	103.942		100
Pb	208	103.094453	ug/L	102.276		100
Sb	121	103.629563	ug/L	103.217		100
Sb	123	103.888418	ug/L	103.475		100
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303		100
Tl	205	102.099164	ug/L	102.406		100
V	51	103.657425	ug/L	102.631		100
Zn	64	114.231025	ug/L	113.776		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591		10000
Mg	24	9453.82297	ug/L	94.538		10000
Mg	25	9445.54684	ug/L	94.455		10000
Na	23	9519.12975	ug/L	95.191		10000
P	31	9507.21505	ug/L	95.072		10000
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333		10000
Mg	24	9627.10708	ug/L	96.271		10000
Mg	25	9643.50715	ug/L	96.435		10000
Na	23	9640.23924	ug/L	96.402		10000
P	31	9707.49771	ug/L	97.075		10000
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1	Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.688755	ug/L	108.324		31.1	Ag	109	33.078838	ug/L	106.363		31.1
Al	27	179.043586	ug/L	110.521		162	Al	27	174.750964	ug/L	107.871		162
As	75	45.162096	ug/L	111.511		40.5	As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.731851	ug/L	105.444		26.3	Ba	137	27.205882	ug/L	103.444		26.3
Be	9	64.398794	ug/L	120.823		53.3	Be	9	62.863805	ug/L	117.943		53.3
Cd	111	49.461889	ug/L	102.618		48.2	Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	49.490706	ug/L	102.678		48.2	Cd	114	48.546222	ug/L	100.718		48.2
Co	59	27.129774	ug/L	110.284		24.6	Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.414864	ug/L	107.955		11.5	Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.906814	ug/L	106.81		28	Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.383655	ug/L	104.942		28	Cu	65	29.413619	ug/L	105.049		28
Fe	54	47.801167	ug/L	107.66		44.4	Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	47.125058	ug/L	106.138		44.4	Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.442		Ge	72		ug/L		77.354	
Hg	200	1.059861	ug/L	105.986		1	Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.062051	ug/L	106.205		1	Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		91.204		Ho	165		ug/L		92.327	
In	115		ug/L		85.046		In	115		ug/L		86.826	
Mn	55	162.656169	ug/L	109.903		148	Mn	55	158.688787	ug/L	107.222		148
Ni	60	38.003502	ug/L	105.273		36.1	Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.531851	ug/L	103.966		36.1	Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.276791	ug/L	105.312		137	Pb	208	144.011138	ug/L	105.118		137
Sb	121	80.552718	ug/L	126.258		63.8	Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	81.755156	ug/L	128.143		63.8	Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.245		Sc	45		ug/L		76.361	
Se	82	176.391985	ug/L	108.884		162	Se	82	174.683949	ug/L	107.83		162
Tl	205	29.572709	ug/L	106.377		27.8	Tl	205	29.024052	ug/L	104.403		27.8
V	51	149.952502	ug/L	105.6		142	V	51	148.64255	ug/L	104.678		142
Zn	64	141.444438	ug/L	112.257		126	Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Silver spike only reported.

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73946.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72776.5, 43816.1			
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72776.5, 43816.1			25 mL
123529.1 MSD			73087.1, 72776.5, 43816.1			25 mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			26 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			73966.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.02	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	73966.6, 73992.1, 74240.1	83.5	JDMS	
LCS	↓	↓	73087.1, 72276.5, 43816.1	↓	↓	
AgLCS			43818.1			
1231622.01						
1231629.01						
02						
1231641.01						
02						
1231642.04						1:10 dilution
05						1:10 dilution
1231647.01						
02						
03						
1231648.01						
1231649.01						
649.01 MS			73087.1, 72276.5, 43816.1			
649.01 MSD			73087.1, 72276.5, 43816.1			
1231649.02						
1231649.03						
1231649.06						
649.06 MS			73087.1, 72276.5, 43816.1			
649.06 MSD			73087.1, 72276.5, 43816.1			
1231650.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73906.10, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	BMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72276.5, 43816.1			25 mL
711.02 MSD			73087.1, 72276.5, 43816.1			25 mL
123741.01						

23 TAL met

Sample ID: 123529.01
Sample Date/Time: Wednesday, August 21, 2013 21:01:51
Autosampler Position: 54
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.01.77658

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23865.953	ug/L	
Be	9	0.002393	16.000	ug/L	0.001
B	10	17.149638	2234.964	ug/L	0.090
B	11	16.995201	11281.775	ug/L	0.338
C	12		559754.308	ug/L	
Na	23	7743.341546	53517864.858	ug/L	208.180
Mg	24	2765.750217	13213678.748	ug/L	60.770
Mg	25	2769.149483	1878185.916	ug/L	95.921
Al	27	7.206847	58114.989	ug/L	0.543
Si	28		32548672.734	ug/L	
P	31	37.909480	28754.955	ug/L	0.373
S	32		73000721.909	ug/L	
Cl	35		9015216.941	ug/L	
K	39	2005.644952	23073636.026	ug/L	45.132
Ca	44	11911.537257	4349386.212	ug/L	167.518
Sc	45		211984.787	ug/L	
Ti	47	2.264251	2352.995	ug/L	0.053
Ti	48	16.819517	172561.622	ug/L	0.397
V	51	-0.734154	29632.178	ug/L	0.044
ClO	51		29900.059	ug/L	
Cr	52	-0.204679	7879.084	ug/L	0.023
Cr	53	-2.973872	9211.757	ug/L	0.126
Fe	54	17951.165148	16296339.306	ug/L	148.412
Mn	55	3140.767607	58260849.500	ug/L	39.201
Fe	56	18063.012973	275183918.528	ug/L	191.169
Fe	57	18131.284700	6566996.865	ug/L	149.371
Co	59	12.201252	164455.965	ug/L	0.039
Ni	60	17.485067	48445.236	ug/L	0.049
Ni	62	17.221707	7132.868	ug/L	0.291
Cu	63	0.715239	4643.232	ug/L	0.018
Zn	64	1.008063	6718.578	ug/L	0.007
Cu	65	0.639480	2092.929	ug/L	0.032
Zn	66	0.621143	3381.996	ug/L	0.053
Zn	68	1.434055	3645.100	ug/L	0.006
Ge	72		169613.487	ug/L	
As	75	30.432249	51826.901	ug/L	0.632
Se	82	0.220540	58.317	ug/L	0.042
ArCl	77		666.698	ug/L	
Br	79		11997.740	ug/L	

Br	81		31279.746	ug/L	
Y	89		425271.963	ug/L	
Mo	95	0.294581	1264.434	ug/L	0.013
Rh	103		405039.267	ug/L	
Ag	107	0.109750	1790.195	ug/L	0.018
Ag	109	0.103191	1612.159	ug/L	0.007
Cd	111	0.185379	950.393	ug/L	0.013
Cd	114	0.190028	2253.635	ug/L	0.004
In	115		573806.155	ug/L	
Sb	121	0.269524	2654.081	ug/L	0.003
Sb	123	0.268432	2028.405	ug/L	0.003
Ba	137	18.924447	105376.622	ug/L	0.379
Ba	138	18.855307	681841.976	ug/L	0.632
Tb	159		805128.346	ug/L	
Ho	165		797842.379	ug/L	
Hg	200	0.002138	27.334	ug/L	0.001
Hg	202	0.000947	32.000	ug/L	0.002
Tl	205	-0.059198	2903.494	ug/L	0.007
Pb	208	0.147903	10120.648	ug/L	0.005
Bi	209		736364.695	ug/L	
Se	77	-0.863128	681.366	ug/L	0.094
Se	78	-5.525218	8956.842	ug/L	0.093

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		102.911
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	85.939
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	87.603
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	96.647
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.02
Sample Date/Time: Wednesday, August 21, 2013 21:08:23
Autosampler Position: 55
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.02.77659

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25117.318	ug/L	
Be	9	0.324561	215.338	ug/L	0.007
B	10	37.613305	5626.464	ug/L	1.148
B	11	38.293717	29176.038	ug/L	0.645
C	12		566794.178	ug/L	
Na	23	14002.635376	112868775.388	ug/L	185.987
Mg	24	10719.878802	59720728.376	ug/L	251.383
Mg	25	10782.063246	8528794.719	ug/L	204.789
Al	27	4716.379433	41004872.281	ug/L	113.987
Si	28		51653496.820	ug/L	
P	31	202.341682	117702.176	ug/L	3.207
S	32		75533895.519	ug/L	
Cl	35		10033753.067	ug/L	
K	39	4495.242110	59345540.910	ug/L	76.021
Ca	44	24613.687345	10466725.738	ug/L	243.417
Sc	45		247241.008	ug/L	
Ti	47	344.057070	378224.725	ug/L	5.326
Ti	48	362.327669	4348828.518	ug/L	5.049
V	51	10.303168	218175.165	ug/L	0.164
ClO	51		221529.507	ug/L	
Cr	52	8.155748	126585.229	ug/L	0.307
Cr	53	4.705974	23817.063	ug/L	0.426
Fe	54	8181.753863	8703489.098	ug/L	205.788
Mn	55	472.754453	10226149.214	ug/L	14.022
Fe	56	8188.608701	147511307.412	ug/L	202.693
Fe	57	8344.894735	3530592.306	ug/L	281.517
Co	59	4.424181	71404.035	ug/L	0.147
Ni	60	12.944519	41831.439	ug/L	0.398
Ni	62	14.848571	7178.572	ug/L	0.786
Cu	63	16.000982	114508.809	ug/L	0.557
Zn	64	33.507278	109910.489	ug/L	0.988
Cu	65	16.129285	57760.154	ug/L	0.475
Zn	66	30.809781	60664.341	ug/L	0.976
Zn	68	31.048480	45960.680	ug/L	0.930
Ge	72		165829.921	ug/L	
As	75	17.539516	29145.304	ug/L	0.490
Se	82	0.350036	80.154	ug/L	0.029
ArCl	77		829.713	ug/L	
Br	79		30741.762	ug/L	

Br	81		51421.452	ug/L	
Y	89		474831.707	ug/L	
Mo	95	1.847156	7276.651	ug/L	0.003
Rh	103		391645.315	ug/L	
Ag	107	0.114290	1833.537	ug/L	0.008
Ag	109	0.110226	1684.173	ug/L	0.010
Cd	111	-0.056127	157.003	ug/L	0.003
Cd	114	-0.049293	429.348	ug/L	0.003
In	115		567931.593	ug/L	
Sb	121	0.219225	2186.952	ug/L	0.000
Sb	123	0.218235	1669.534	ug/L	0.002
Ba	137	47.917642	264017.867	ug/L	0.590
Ba	138	47.599008	1703530.777	ug/L	1.441
Tb	159		773512.923	ug/L	
Ho	165		765263.280	ug/L	
Hg	200	0.010164	50.334	ug/L	0.002
Hg	202	0.007487	56.667	ug/L	0.000
Tl	205	0.089097	8993.203	ug/L	0.003
Pb	208	4.179820	245187.063	ug/L	0.013
Bi	209		708201.310	ug/L	
Se	77	0.304636	857.716	ug/L	0.253
Se	78	-5.625028	8908.488	ug/L	0.079

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		120.026
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	84.021
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	86.706
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	92.700
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.03
Sample Date/Time: Wednesday, August 21, 2013 21:14:54
Autosampler Position: 56
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.03.77660

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23120.031	ug/L	
Be	9	0.031660	29.000	ug/L	0.002
B	10	27.326774	3264.285	ug/L	0.164
B	11	28.518849	17335.686	ug/L	0.648
C	12		571100.456	ug/L	
Na	23	20404.463693	130635644.372	ug/L	426.605
Mg	24	11587.886439	51282337.680	ug/L	296.663
Mg	25	11783.342648	7404338.704	ug/L	227.279
Al	27	171.362744	1187041.463	ug/L	8.795
Si	28		20943414.946	ug/L	
P	31	27.632394	22439.935	ug/L	3.991
S	32		80249537.126	ug/L	
Cl	35		10356376.339	ug/L	
K	39	4853.310690	50836597.224	ug/L	184.652
Ca	44	26042.948178	8794880.286	ug/L	688.003
Sc	45		196395.317	ug/L	
Ti	47	6.509702	5882.295	ug/L	0.355
Ti	48	43.229854	411530.197	ug/L	2.334
V	51	-0.334298	32728.139	ug/L	0.095
ClO	51		32937.222	ug/L	
Cr	52	-0.078767	8702.739	ug/L	0.033
Cr	53	-1.832455	10080.689	ug/L	0.025
Fe	54	2291.136521	1981656.936	ug/L	49.865
Mn	55	493.974961	8489154.102	ug/L	10.979
Fe	56	2238.420590	34202395.885	ug/L	36.825
Fe	57	2294.493504	778648.723	ug/L	70.516
Co	59	0.080843	3341.315	ug/L	0.022
Ni	60	1.029086	2697.427	ug/L	0.014
Ni	62	0.322375	181.670	ug/L	0.013
Cu	63	0.497678	3066.215	ug/L	0.035
Zn	64	2.642014	10300.791	ug/L	0.066
Cu	65	0.405066	1274.435	ug/L	0.002
Zn	66	1.827783	4935.389	ug/L	0.016
Zn	68	2.885391	5002.427	ug/L	0.066
Ge	72		160754.828	ug/L	
As	75	7.504565	12014.387	ug/L	0.195
Se	82	0.554236	112.613	ug/L	0.059
ArCl	77		777.708	ug/L	
Br	79		37339.541	ug/L	

Br	81		58329.357	ug/L	
Y	89		425340.195	ug/L	
Mo	95	1.097258	4226.025	ug/L	0.009
Rh	103		388161.141	ug/L	
Ag	107	0.060502	1142.750	ug/L	0.005
Ag	109	0.062700	1096.744	ug/L	0.002
Cd	111	-0.058248	151.003	ug/L	0.004
Cd	114	-0.068880	283.341	ug/L	0.004
In	115		570374.264	ug/L	
Sb	121	0.162391	1697.509	ug/L	0.001
Sb	123	0.160460	1285.722	ug/L	0.004
Ba	137	39.524997	218732.281	ug/L	0.130
Ba	138	39.494740	1419203.896	ug/L	1.419
Tb	159		783221.839	ug/L	
Ho	165		772684.437	ug/L	
Hg	200	0.004093	32.334	ug/L	0.001
Hg	202	0.001773	34.334	ug/L	0.001
Tl	205	-0.069524	2371.002	ug/L	0.009
Pb	208	0.383993	23710.045	ug/L	0.016
Bi	209		690771.644	ug/L	
Se	77	-0.209712	780.041	ug/L	0.156
Se	78	-5.583387	8928.662	ug/L	0.108

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		95.343
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe
	Co
	Ni
	Ni
	Cu
	Zn
	Cu
	Zn
	Zn
>	Ge
	As
	Se
	ArCl
	Br
	Br
	Y
	Mo
	Rh
	Ag
	Ag
	Cd
	Cd
>	In
	Sb
	Sb
	Ba
	Ba
	Tb
>	Ho
	Hg
	Hg
	Tl
	Pb
	Bi
	Se
	Se

81.450

87.079

93.599

Sample ID: 123529.04
Sample Date/Time: Wednesday, August 21, 2013 21:21:26
Autosampler Position: 57
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.04.77661

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22882.124	ug/L	
Be	9	-0.004326	13.000	ug/L	0.002
B	10	138.535193	18323.631	ug/L	0.125
B	11	139.357954	93886.965	ug/L	0.915
C	12		634157.646	ug/L	
Na	23	47493.055383	341645742.363	ug/L	270.999
Mg	24	15277.913259	75978350.475	ug/L	202.873
Mg	25	15323.547138	10818990.544	ug/L	0.580
Al	27	3.442102	31230.002	ug/L	0.049
Si	28		37352628.635	ug/L	
P	31	146.458658	79517.504	ug/L	0.674
S	32		76407961.812	ug/L	
Cl	35		10296505.865	ug/L	
K	39	13577.570778	158578925.996	ug/L	106.152
Ca	44	40012.766628	15176550.130	ug/L	489.228
Sc	45		220619.649	ug/L	
Ti	47	2.816159	2990.188	ug/L	0.077
Ti	48	51.770205	554021.711	ug/L	1.780
V	51	-0.775767	30225.467	ug/L	0.032
ClO	51		31085.703	ug/L	
Cr	52	-0.147495	8919.248	ug/L	0.006
Cr	53	-2.774316	9892.145	ug/L	0.028
Fe	54	35369.687974	33349680.117	ug/L	321.279
Mn	55	964.399940	18620854.594	ug/L	6.869
Fe	56	35534.287483	560207150.945	ug/L	181.290
Fe	57	35553.272340	13391337.423	ug/L	160.919
Co	59	4.366147	62941.435	ug/L	0.056
Ni	60	12.275052	35414.868	ug/L	0.141
Ni	62	11.138708	4824.995	ug/L	0.350
Cu	63	0.631074	4297.058	ug/L	0.001
Zn	64	0.147514	4579.322	ug/L	0.015
Cu	65	0.198797	774.041	ug/L	0.006
Zn	66	-0.208427	2128.937	ug/L	0.028
Zn	68	0.965768	3204.597	ug/L	0.059
Ge	72		172086.857	ug/L	
As	75	32.491082	56161.321	ug/L	0.540
Se	82	1.355401	268.317	ug/L	0.122
ArCl	77		887.719	ug/L	
Br	79		102988.914	ug/L	

Br	81		124794.635	ug/L	
Y	89		407440.134	ug/L	
Mo	95	13.529497	54727.861	ug/L	0.331
Rh	103		381253.512	ug/L	
Ag	107	0.047853	941.725	ug/L	0.001
Ag	109	0.044589	837.714	ug/L	0.002
Cd	111	-0.043071	193.004	ug/L	0.002
Cd	114	-0.052901	389.012	ug/L	0.003
In	115		549681.279	ug/L	
Sb	121	0.168175	1684.840	ug/L	0.002
Sb	123	0.176066	1341.228	ug/L	0.003
Ba	137	42.043385	224205.981	ug/L	0.730
Ba	138	41.593686	1440862.058	ug/L	0.817
Tb	159		758726.134	ug/L	
Ho	165		747938.095	ug/L	
Hg	200	0.002954	28.000	ug/L	0.001
Hg	202	0.000013	26.334	ug/L	0.001
Tl	205	-0.069173	2314.985	ug/L	0.004
Pb	208	0.035287	3060.900	ug/L	0.000
Bi	209		693974.565	ug/L	
Se	77	0.783669	930.057	ug/L	0.162
Se	78	-5.602420	8919.441	ug/L	0.096

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		107.103
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 87.192
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 83.920
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 90.602
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.05
Sample Date/Time: Wednesday, August 21, 2013 21:27:58
Autosampler Position: 58
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.05.77662

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24733.626	ug/L	
Be	9	0.050043	41.334	ug/L	0.013
B	10	143.561942	18468.599	ug/L	0.549
B	11	148.923862	97580.505	ug/L	0.251
C	12		689356.314	ug/L	
Na	23	70299.309402	491773151.842	ug/L	1441.309
Mg	24	24274.604887	117405736.040	ug/L	314.271
Mg	25	24268.877032	16664753.053	ug/L	344.190
Al	27	222.528033	1683644.011	ug/L	4.653
Si	28		29949218.896	ug/L	
P	31	199.277375	100792.378	ug/L	5.437
S	32		82075904.041	ug/L	
Cl	35		12895509.620	ug/L	
K	39	8735.010395	99470709.365	ug/L	102.141
Ca	44	50205.680835	18518353.922	ug/L	665.712
Sc	45		214618.374	ug/L	
Ti	47	17.741460	17144.998	ug/L	0.017
Ti	48	74.091258	771693.420	ug/L	0.233
V	51	0.134647	42546.440	ug/L	0.034
ClO	51		43532.452	ug/L	
Cr	52	0.329948	14496.858	ug/L	0.013
Cr	53	-1.135345	12046.768	ug/L	0.015
Fe	54	7508.388675	6939051.499	ug/L	169.648
Mn	55	243.810963	4580291.988	ug/L	1.432
Fe	56	7623.109978	119460116.059	ug/L	49.616
Fe	57	7852.862344	2885690.371	ug/L	74.850
Co	59	0.165049	4783.306	ug/L	0.014
Ni	60	5.039914	14180.528	ug/L	0.083
Ni	62	3.822313	1653.500	ug/L	0.032
Cu	63	1.460375	9321.874	ug/L	0.013
Zn	64	21.137064	61685.172	ug/L	0.490
Cu	65	0.834176	2723.102	ug/L	0.011
Zn	66	21.864957	38070.931	ug/L	0.663
Zn	68	23.840793	31085.033	ug/L	0.617
Ge	72		162359.267	ug/L	
As	75	44.805239	73092.156	ug/L	0.995
Se	82	2.629834	474.898	ug/L	0.125
ArCl	77		1034.403	ug/L	
Br	79		189731.600	ug/L	

Br	81		217256.053	ug/L	
Y	89		422167.010	ug/L	
Mo	95	3.241890	12436.629	ug/L	0.020
Rh	103		382027.763	ug/L	
Ag	107	0.050612	982.063	ug/L	0.005
Ag	109	0.048701	893.053	ug/L	0.007
Cd	111	-0.031930	229.339	ug/L	0.003
Cd	114	-0.032817	538.355	ug/L	0.001
In	115		552557.522	ug/L	
Sb	121	0.225637	2182.284	ug/L	0.000
Sb	123	0.229111	1696.201	ug/L	0.011
Ba	137	102.582578	549785.252	ug/L	1.297
Ba	138	99.041952	3447983.003	ug/L	2.283
Tb	159		765122.290	ug/L	
Ho	165		756977.877	ug/L	
Hg	200	0.044422	151.669	ug/L	0.001
Hg	202	0.035345	165.670	ug/L	0.001
Tl	205	-0.080274	1884.549	ug/L	0.005
Pb	208	0.381941	23123.732	ug/L	0.006
Bi	209		657751.078	ug/L	
Se	77	1.618122	1056.072	ug/L	0.231
Se	78	-4.880024	9269.411	ug/L	0.486

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		104.189
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 82.263
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.359
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.697
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.04
Sample Date/Time: Thursday, August 22, 2013 10:27:12
Autosampler Position: 57
Sample Description: 1:1 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.04.77776

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25387.399	ug/L	
Be	9	-0.006312	11.000	ug/L	0.008
B	10	79.353654	9703.609	ug/L	3.087
B	11	82.717857	51509.733	ug/L	2.390
C	12		537508.641	ug/L	
Na	23	27734.321437	183982336.332	ug/L	55.517
Mg	24	8936.810134	40984123.797	ug/L	93.826
Mg	25	8960.271417	5833708.847	ug/L	112.882
Al	27	2.027995	18681.041	ug/L	0.010
Si	28		19371836.009	ug/L	
P	31	82.932494	46566.972	ug/L	1.867
S	32		77799993.316	ug/L	
Cl	35		10246230.296	ug/L	
K	39	7729.670243	83529463.848	ug/L	12.952
Ca	44	21911.102219	7669353.436	ug/L	118.432
Sc	45		203447.349	ug/L	
Ti	47	1.544942	1608.158	ug/L	0.039
Ti	48	29.427658	290167.401	ug/L	1.489
V	51	-0.891043	26294.570	ug/L	0.033
ClO	51		26614.503	ug/L	
Cr	52	-0.164714	8025.794	ug/L	0.010
Cr	53	-3.069631	8707.589	ug/L	0.113
Fe	54	19815.297733	17257221.015	ug/L	504.148
Mn	55	544.384827	9693264.405	ug/L	9.427
Fe	56	20142.153862	294150404.728	ug/L	471.697
Fe	57	20099.260594	6985566.042	ug/L	347.368
Co	59	2.416250	33207.876	ug/L	0.044
Ni	60	6.974627	18583.160	ug/L	0.068
Ni	62	6.301272	2543.715	ug/L	0.183
Cu	63	0.367518	2414.011	ug/L	0.002
Zn	64	-0.346792	2944.522	ug/L	0.015
Cu	65	0.124258	494.685	ug/L	0.002
Zn	66	-0.549661	1435.461	ug/L	0.021
Zn	68	0.084618	1933.892	ug/L	0.046
Ge	72		178647.610	ug/L	
As	75	16.045263	28720.702	ug/L	0.037
Se	82	0.495003	113.939	ug/L	0.092
ArCl	77		791.709	ug/L	
Br	79		51631.599	ug/L	

Br	81		73703.300	ug/L	
Y	89		445902.802	ug/L	
Mo	95	6.645526	27949.542	ug/L	0.294
Rh	103		416584.380	ug/L	
Ag	107	0.026247	733.370	ug/L	0.001
Ag	109	0.028911	709.035	ug/L	0.001
Cd	111	-0.066360	131.002	ug/L	0.006
Cd	114	-0.072830	266.673	ug/L	0.002
In	115		600977.032	ug/L	
Sb	121	0.085690	1079.408	ug/L	0.007
Sb	123	0.086903	831.077	ug/L	0.009
Ba	137	20.119010	117361.194	ug/L	0.111
Ba	138	20.079823	760845.929	ug/L	0.109
Tb	159		822948.891	ug/L	
Ho	165		811100.821	ug/L	
Hg	200	-0.000512	19.334	ug/L	0.000
Hg	202	-0.000426	26.667	ug/L	0.000
Tl	205	-0.078901	2081.593	ug/L	0.003
Pb	208	0.013373	1961.435	ug/L	0.002
Bi	209		743160.292	ug/L	
Se	77	-0.030905	807.044	ug/L	0.116
Se	78	-3.532273	9922.338	ug/L	0.135

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		98.766
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 90.516
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 91.751
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.253
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.05
Sample Date/Time: Thursday, August 22, 2013 10:33:44
Autosampler Position: 58
Sample Description: 1:1 Na + Ca LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.05.77777

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25896.850	ug/L	
Be	9	0.019689	22.667	ug/L	0.011
B	10	82.953089	9586.482	ug/L	0.498
B	11	87.942304	51737.655	ug/L	2.107
C	12		565204.815	ug/L	
Na	23	41450.475042	259818513.636	ug/L	1316.101
Mg	24	14335.385389	62124661.246	ug/L	322.324
Mg	25	14248.993484	8768775.601	ug/L	99.868
Al	27	128.489576	872967.176	ug/L	1.231
Si	28		15187734.977	ug/L	
P	31	113.403840	56165.406	ug/L	3.039
S	32		80778293.279	ug/L	
Cl	35		11416765.355	ug/L	
K	39	4977.439599	51047873.717	ug/L	102.485
Ca	44	28132.984163	9302917.496	ug/L	585.772
Sc	45		192312.031	ug/L	
Ti	47	9.767724	8546.101	ug/L	0.209
Ti	48	46.830495	436735.490	ug/L	1.131
V	51	-0.284443	32711.776	ug/L	0.028
ClO	51		33171.760	ug/L	
Cr	52	0.134913	10858.059	ug/L	0.024
Cr	53	-1.822529	9882.802	ug/L	0.068
Fe	54	4402.674468	3672589.793	ug/L	21.177
Mn	55	142.474310	2398764.269	ug/L	1.931
Fe	56	4374.208095	62668458.707	ug/L	29.535
Fe	57	4353.822305	1438154.145	ug/L	37.091
Co	59	0.028016	2637.742	ug/L	0.009
Ni	60	2.969950	7511.510	ug/L	0.079
Ni	62	2.216523	883.052	ug/L	0.080
Cu	63	0.875128	5100.148	ug/L	0.017
Zn	64	12.387859	33896.822	ug/L	0.416
Cu	65	0.503723	1521.809	ug/L	0.012
Zn	66	12.822405	20902.545	ug/L	0.337
Zn	68	13.705411	16751.587	ug/L	0.380
Ge	72		167243.355	ug/L	
As	75	22.221258	37262.020	ug/L	0.660
Se	82	1.100921	214.880	ug/L	0.065
ArCl	77		833.713	ug/L	
Br	79		93727.170	ug/L	

Br	81		118634.484	ug/L	
Y	89		446379.696	ug/L	
Mo	95	1.591684	6330.600	ug/L	0.061
Rh	103		402468.370	ug/L	
Ag	107	0.031199	787.042	ug/L	0.000
Ag	109	0.034149	764.373	ug/L	0.000
Cd	111	-0.057224	159.670	ug/L	0.003
Cd	114	-0.056809	387.679	ug/L	0.004
In	115		590312.937	ug/L	
Sb	121	0.106120	1246.431	ug/L	0.005
Sb	123	0.113450	1002.096	ug/L	0.001
Ba	137	50.293204	287980.382	ug/L	0.940
Ba	138	49.807180	1852955.505	ug/L	0.296
Tb	159		822211.619	ug/L	
Ho	165		813445.470	ug/L	
Hg	200	0.020422	86.335	ug/L	0.001
Hg	202	0.014819	91.001	ug/L	0.003
Tl	205	-0.083451	1877.548	ug/L	0.007
Pb	208	0.184265	12572.560	ug/L	0.005
Bi	209		704384.452	ug/L	
Se	77	0.525388	891.053	ug/L	0.109
Se	78	-3.683624	9849.015	ug/L	0.355

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		93.360
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 84.738
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 90.123
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.537
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August222013.sam
Report Date/Time: Friday, August 23, 2013 15:20:18

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA		Sample					
21		ICSAB		Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-21 A		Sample					
27		BLK 8-21 B		Sample					
28		LCS 8-15 A		Sample					
29		LCS 8-15 B		Sample					
30		LCS 8-21 A		Sample					
31		LCS 8-21 B		Sample					
32		flush		Sample					
33		flush		Sample					
34		flush		Sample					
35		123529.06		Sample					
36		123529.07		Sample					
37		123529.08		Sample					
38		123529.09		Sample					
39		123529.10		Sample					
40		123529.10 MSpre		Sample					
41		123529.10 MSpre		Sample					
42		flush		Sample					
43		flush		Sample					
44		flush		Sample					
45		123529.11		Sample					
46		123529.12		Sample					
47		123529.13		Sample					
48		123529.14		Sample					
49		123529.15		Sample					

50	123529.16		Sample
51	123529.17		Sample
52	123529.18		Sample
53	123529.19		Sample
54	123529.20		Sample
55	123529.20 MSpost		Sample
56	123529.20 MSpost		Sample
57	flush		Sample
58	flush		Sample
59	flush		Sample
60	123529.21		Sample
61	123529.22		Sample
62	123529.23		Sample
63	123529.24		Sample
64	123529.25		Sample
65	123529.27		Sample
66	123529.28		Sample
67	123529.29		Sample
68	123739.02		Sample
69	123739.03		Sample
70	123739.03 MSpost		Sample
71	123739.03 MSpost		Sample
72	flush		Sample
73	flush		Sample
74	flush		Sample
75	123739.04		Sample
76	123739.06		Sample
77	123739.07		Sample
78	123739.08		Sample
79	123739.09		Sample
80	123739.10		Sample
81	123739.11		Sample
82	123739.17		Sample
83	123739.18		Sample
84	123739.19		Sample
85	123739.19 MSpost		Sample
86	123739.19 MSpost rerun		Sample
87	flush		Sample
88	flush		Sample
89	flush		Sample
90	123739.20		Sample
91	123739.21		Sample
92	123739.22		Sample
93	flush		Sample
94	TCLP BLK	1:100	Sample
95	TCLP LCS	1:100	Sample
96	TCLP Ag LCS	1:10	Sample
97	flush		Sample
98	123770.01	1:100 rerun	Sample
99	123770.02	1:100	Sample
100	123770.03	1:100	Sample
101	123770.04	1:100	Sample
102	123770.05	1:100	Sample
103	123785.01	1:100	Sample
104	123785.02	1:100	Sample
105	123785.03	1:100	Sample
106	123785.03 MS	1:100 Ag rerun	Sample
107	123785.03 MS	1:100 Ag rerun	Sample
108	flush		Sample
109	flush		Sample

110	flush		Sample
111	123579.01	1:100	Sample
112	123645.01	1:100	Sample
113	123645.02	1:100	Sample
114	123750.01	1:100	Sample
115	123750.02	1:100	Sample
116	flush		Sample
117	BLK		Sample
118	filter BLK		Sample
119	Ag LCS		Sample
120	LCS		Sample
121	filter LCS		Sample
122	flush		Sample
123	flush		Sample
124	123810.01		Sample
125	123810.02		Sample
126	123742.01		Sample
127	123742.02		Sample
128	123742.03		Sample
129	123742.04		Sample
130	123742.05		Sample
131	123742.06		Sample
132	123742.07		Sample
133	123742.08		Sample
134	123742.09		Sample
135	123742.10		Sample
136	123742.10 MS		Sample
137	123742.10 MSD		Sample
138	flush		Sample
139	flush		Sample
140	flush		Sample
141	123742.11		Sample
142	123742.12		Sample
143	123681.02		Sample
144	123754.01		Sample
145	123749.01		Sample
146	123786.01		Sample
147	123786.02		Sample
148	123793.01		Sample
149	123767.01		Sample
150	123781.01		Sample
151	123781.01 MS		Sample
152	123781.01 MSD		Sample
153	flush		Sample
154	flush		Sample
155	flush		Sample
156	123790.01		Sample
157	123806.01		Sample
158			Sample
159			Sample
160			Sample

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, August 22, 2013 15:26:11
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.017
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual

Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.47 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	45308.3	45308.347	186.711	0.4
	Rh	102.9	299263.6	299263.587	2070.764	0.7
	In	114.9	419714.9	419714.948	2711.279	0.6
	Pb	208.0	316658.3	316658.274	2019.705	0.6
⌈>	Ba	137.9	383179.7	383179.737	2293.008	0.6
⌊	Ba++	69.0	3282.5	0.009	0.000	1.4
⌈>	Ce	139.9	462958.0	462958.019	2327.080	0.5
⌊	CeO	155.9	11760.4	0.025	0.000	1.5
	Bkgd	220.0	2.2	2.200	2.388	108.5

Current Optimization File Data

Current Value	Description
1.01	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

7469.7

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.5	4279.5
Co	59	11	6.3	109531.9
In	115	11	7.3	428561.5

7468.7

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	606	2087	0.620	
Mg	23.985	23.979	5741	2024	0.640	
Rh	102.905	102.929	25063	1900	0.678	
Ce	139.905	139.929	34038	1961	0.703	
Pb	207.977	207.977	50450	2247	0.690	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Thursday, August 22, 2013 15:41:56	0	0	0	0
Standard 1	Thursday, August 22, 2013 15:48:27	0	0	0	0
Standard 2	Thursday, August 22, 2013 15:54:58	0	0	0	0
Standard 3	Thursday, August 22, 2013 16:01:30	0	0	0	0
Standard 4	Thursday, August 22, 2013 16:08:01	0	0	0	0
Standard 5	Thursday, August 22, 2013 16:14:33	0	0	0	0
Standard 6	Thursday, August 22, 2013 16:21:05	0	0	0	0
Standard 7	Thursday, August 22, 2013 16:27:37	0	0	0	0
Standard 8	Thursday, August 22, 2013 16:34:10	0	0	0	0
Standard 9	Thursday, August 22, 2013 16:40:42	0	0	0	0
QC Std 1	Thursday, August 22, 2013 16:47:13	99	98	98	99
QC Std 2	Thursday, August 22, 2013 16:53:45	100	99	99	102
QC Std 3	Thursday, August 22, 2013 17:00:16	94	95	96	98
QC Std 5	Thursday, August 22, 2013 17:06:47	100	96	99	99
QC Std 6	Thursday, August 22, 2013 17:13:17	99	96	93	98
LLCS	Thursday, August 22, 2013 17:26:18	99	97	96	100
LLCS	Thursday, August 22, 2013 17:32:49	99	99	97	98
LLCS	Thursday, August 22, 2013 17:39:19	98	98	97	101
ICSA	Thursday, August 22, 2013 17:45:50	94	95	86	89
ICSAB	Thursday, August 22, 2013 17:52:22	94	96	87	90
5ppm LRC-flush	Thursday, August 22, 2013 17:58:54	100	101	101	102
BLK 8-15 A	Thursday, August 22, 2013 18:11:58	99	96	98	99
BLK 8-15 B	Thursday, August 22, 2013 18:18:31	101	100	99	100
QC Std 1	Thursday, August 22, 2013 18:25:04	103	99	100	101
QC Std 2	Thursday, August 22, 2013 18:31:35	101	97	98	99
QC Std 5	Thursday, August 22, 2013 18:38:06	99	97	99	100
QC Std 6	Thursday, August 22, 2013 18:44:36	98	94	94	96
BLK 8-21 A	Thursday, August 22, 2013 18:51:07	100	97	98	99
BLK 8-21 B	Thursday, August 22, 2013 18:57:38	102	97	101	100
LCS 8-15 A	Thursday, August 22, 2013 19:04:08	96	90	92	95
LCS 8-15 B	Thursday, August 22, 2013 19:10:39	94	87	90	92
LCS 8-21 A	Thursday, August 22, 2013 19:17:10	90	85	89	91
LCS 8-21 B	Thursday, August 22, 2013 19:23:40	91	85	88	90
123529.06	Thursday, August 22, 2013 19:49:47	103	79	81	88
QC Std 1	Thursday, August 22, 2013 19:56:19	92	87	91	95
QC Std 2	Thursday, August 22, 2013 20:02:50	90	87	91	94
QC Std 5	Thursday, August 22, 2013 20:09:21	90	85	91	93
QC Std 6	Thursday, August 22, 2013 20:15:51	89	88	89	92
123529.07	Thursday, August 22, 2013 20:22:23	105	81	84	89
123529.08	Thursday, August 22, 2013 20:28:56	109	83	83	89
123529.09	Thursday, August 22, 2013 20:35:28	107	84	85	92
123529.1	Thursday, August 22, 2013 20:42:00	109	83	85	90
123529.10 MS	Thursday, August 22, 2013 20:48:31	102	84	80	85
123529.10 MSD	Thursday, August 22, 2013 20:55:02	105	83	83	86
123529.11	Thursday, August 22, 2013 21:21:08	104	85	84	89
QC Std 1	Thursday, August 22, 2013 21:27:40	90	89	91	96
QC Std 2	Thursday, August 22, 2013 21:34:11	92	90	92	96
QC Std 5	Thursday, August 22, 2013 21:40:41	90	89	93	96
QC Std 6	Thursday, August 22, 2013 21:47:12	92	91	91	94
123529.12	Thursday, August 22, 2013 21:53:43	107	88	85	91
123529.13	Thursday, August 22, 2013 22:00:15	108	88	85	91
123529.14	Thursday, August 22, 2013 22:06:48	103	91	92	95
123529.15	Thursday, August 22, 2013 22:13:21	101	89	90	94
123529.16	Thursday, August 22, 2013 22:19:53	101	86	91	92
123529.17	Thursday, August 22, 2013 22:26:25	97	81	82	87
123529.18	Thursday, August 22, 2013 22:32:56	107	86	87	91

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.19	Thursday, August 22, 2013 22:39:28	110	86	87	92
123529.2	Thursday, August 22, 2013 22:46:00	107	81	82	89
123529.20 MS	Thursday, August 22, 2013 22:52:31	100	83	79	84
QC Std 1	Thursday, August 22, 2013 22:59:04	94	92	92	95
QC Std 2	Thursday, August 22, 2013 23:05:35	93	92	93	94
QC Std 5	Thursday, August 22, 2013 23:12:05	94	93	94	96
QC Std 6	Thursday, August 22, 2013 23:18:36	93	91	91	94
123529.20 MSD	Thursday, August 22, 2013 23:25:07	101	82	80	86
123529.21	Thursday, August 22, 2013 23:51:15	105	82	81	89
123529.22	Thursday, August 22, 2013 23:57:48	110	85	87	96
123529.23	Friday, August 23, 2013 00:04:21	102	87	90	94
123529.24	Friday, August 23, 2013 00:10:53	87	84	89	92
123529.25	Friday, August 23, 2013 00:17:25	90	89	92	97
123529.27	Friday, August 23, 2013 00:23:57	110	86	85	91
QC Std 1	Friday, August 23, 2013 00:30:30	92	90	92	95
QC Std 2	Friday, August 23, 2013 00:37:01	92	92	92	95
QC Std 5	Friday, August 23, 2013 00:43:31	89	89	91	93
QC Std 6	Friday, August 23, 2013 00:50:02	94	91	91	95
123529.28	Friday, August 23, 2013 00:56:33	110	90	88	91
123529.29	Friday, August 23, 2013 01:03:05	109	89	88	91
123739.02	Friday, August 23, 2013 01:09:37	110	86	84	91
123739.03	Friday, August 23, 2013 01:16:09	108	84	85	92
123739.03 MS	Friday, August 23, 2013 01:22:41	103	84	82	86
123739.03 MSD	Friday, August 23, 2013 01:29:13	102	84	82	85
123739.04	Friday, August 23, 2013 01:55:24	105	82	85	89
QC Std 1	Friday, August 23, 2013 02:01:56	90	87	92	95
QC Std 2	Friday, August 23, 2013 02:08:27	89	89	91	94
QC Std 5	Friday, August 23, 2013 02:14:57	91	89	91	95
QC Std 6	Friday, August 23, 2013 02:21:28	92	91	88	94
123739.06	Friday, August 23, 2013 02:28:00	107	90	93	94
123739.07	Friday, August 23, 2013 02:34:32	112	91	92	94
123739.08	Friday, August 23, 2013 02:41:04	110	92	93	95
123739.09	Friday, August 23, 2013 02:47:37	103	83	83	90
123739.1	Friday, August 23, 2013 02:54:09	106	84	84	89
123739.11	Friday, August 23, 2013 03:00:41	106	84	83	89
123739.17	Friday, August 23, 2013 03:07:13	112	93	93	96
123739.18	Friday, August 23, 2013 03:13:46	111	89	90	92
123739.19	Friday, August 23, 2013 03:20:18	111	90	94	96
123739.19 MS	Friday, August 23, 2013 03:26:51	108	89	87	90
QC Std 1	Friday, August 23, 2013 03:33:24	97	93	92	94
QC Std 2	Friday, August 23, 2013 03:39:56	97	92	95	96
QC Std 5	Friday, August 23, 2013 03:46:26	96	94	92	95
QC Std 6	Friday, August 23, 2013 03:52:56	94	92	89	93
123739.19 MSD	Friday, August 23, 2013 03:59:28	127	114	136	115
123739.2	Friday, August 23, 2013 04:25:39	112	93	89	94
123739.21	Friday, August 23, 2013 04:32:12	115	93	90	95
123739.22	Friday, August 23, 2013 04:38:44	114	92	88	93
QC Std 1	Friday, August 23, 2013 05:04:55	99	96	94	98
QC Std 2	Friday, August 23, 2013 05:11:26	99	96	95	95
QC Std 5	Friday, August 23, 2013 05:17:56	99	95	95	96
QC Std 6	Friday, August 23, 2013 05:24:27	99	94	92	94
QC Std 1	Friday, August 23, 2013 08:08:12	102	98	94	98
QC Std 2	Friday, August 23, 2013 08:14:43	102	97	95	97
QC Std 5	Friday, August 23, 2013 08:21:13	100	98	96	96
QC Std 6	Friday, August 23, 2013 08:27:44	101	95	90	94
BLK	Friday, August 23, 2013 08:40:51	103	96	97	97

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
filter BLK	Friday, August 23, 2013 08:47:25	102	96	97	98
Ag LCS	Friday, August 23, 2013 08:53:58	102	99	97	98
LCS	Friday, August 23, 2013 09:00:31	99	93	91	92
filter LCS	Friday, August 23, 2013 09:07:05	99	93	90	93
123739.19 MSD	Friday, August 23, 2013 09:43:08	114	92	87	92
QC Std 1	Friday, August 23, 2013 10:09:23	100	93	94	95
QC Std 2	Friday, August 23, 2013 10:15:55	99	94	93	94
QC Std 5	Friday, August 23, 2013 10:22:25	101	95	96	97
QC Std 6	Friday, August 23, 2013 10:28:56	100	94	93	94

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: ICSA
Sample Date/Time: Thursday, August 22, 2013 17:45:50
Sample Description:

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.10925	ug/L			< 1
Ag	109	0.102963	ug/L			< 1
Al	27	46274.6	ug/L	92.55		50000
As	75	0.09523	ug/L			< 1
Ba	137	1.052563	ug/L			1.05
Be	9	0.116839	ug/L			< 1
Ca	44	47183.27	ug/L	94.37		50000
Cd	111	0.139079	ug/L			< 1
Cd	114	0.146349	ug/L			< 1
Co	59	0.209585	ug/L			< 1
Cr	52	0.189176	ug/L			< 1
Cu	63	0.924998	ug/L			< 1
Cu	65	0.72377	ug/L			< 1
Fe	54	45320.63	ug/L	90.64		50000
Fe	56	45711.12	ug/L	91.42		50000
Fe	57	45838.84	ug/L	91.68		50000
Ge	72		ug/L		94.819	
Hg	200	0.051931	ug/L			< 0.1
Hg	202	0.058356	ug/L			< 0.1
Ho	165		ug/L		88.799	
In	115		ug/L		85.548	
K	39	46535.6	ug/L	93.07		50000
Mg	24	45161.48	ug/L	90.32		50000
Mg	25	45122.56	ug/L	90.25		50000
Mn	55	0.387715	ug/L			< 5
Na	23	46810.55	ug/L	93.62		50000
Ni	60	1.861922	ug/L			1.86
Ni	62	0.785692	ug/L			< 1
P	31	43526.87	ug/L	87.05		50000
Pb	208	0.236709	ug/L			< 1
Sb	121	0.193798	ug/L			< 1
Sb	123	0.196444	ug/L			< 1
Sc	45		ug/L		94	
Se	82	-0.07801	ug/L			< 1
Tl	205	0.108886	ug/L			< 1
V	51	1.3943	ug/L			1.39
Zn	64	16.91148	ug/L			16.9
Zn	66	13.44211	ug/L			13.4
Zn	68	12.94204	ug/L			12.9

Sample ID: ICSAB
Sample Date/Time: Thursday, August 22, 2013 17:52:22
Sample Description:

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	8.675998	ug/L	86.76		10
Ag	109	8.721145	ug/L	87.21		10
Al	27	46610.13	ug/L	93.22		50000
As	75	8.976078	ug/L	89.76		10
Ba	137	10.22687	ug/L	91.74		10
Be	9	9.772359	ug/L	97.72		10
Ca	44	47230.88	ug/L	94.46		50000
Cd	111	9.217678	ug/L	92.18		10
Cd	114	9.233359	ug/L	92.33		10
Co	59	8.977986	ug/L	89.78		10
Cr	52	9.328466	ug/L	93.28		10
Cu	63	8.815609	ug/L	88.16		10
Cu	65	8.583326	ug/L	85.83		10
Fe	54	45322.62	ug/L	90.65		50000
Fe	56	45755	ug/L	91.51		50000
Fe	57	45842.85	ug/L	91.69		50000
Ge	72		ug/L		95.909	
Hg	200	1.011807	ug/L	101.18		1
Hg	202	1.013459	ug/L	101.35		1
Ho	165		ug/L		90.321	
In	115		ug/L		86.825	
K	39	46470.42	ug/L	92.94		50000
Mg	24	45905.77	ug/L	91.81		50000
Mg	25	45294.78	ug/L	90.59		50000
Mn	55	9.234277	ug/L	92.34		10
Na	23	47288.68	ug/L	94.58		50000
Ni	60	10.37515	ug/L	85.13		10
Ni	62	9.190081	ug/L	91.90		10
P	31	43429.72	ug/L	86.86		50000
Pb	208	9.32466	ug/L	93.25		10
Sb	121	10.79015	ug/L	107.90		10
Sb	123	10.83188	ug/L	108.32		10
Sc	45		ug/L		93.897	
Se	82	8.251844	ug/L	82.52		10
Tl	205	9.291789	ug/L	92.92		10
V	51	10.50287	ug/L	91.09		10
Zn	64	28.00213	ug/L	110.91		10
Zn	66	25.00711	ug/L	115.65		10
Zn	68	24.78699	ug/L	118.45		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.24		2000

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		85.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.208
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 96.089
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 101.260
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 89.389
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 93.603
Sb
Sb
Ba
Ba
Tb
Ho 99.877
Hg
Hg
Tl
Pb
Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 16:47:13	Sample Date/Time:	Thursday, August 22, 2013 18:25:04
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.00288	ug/L		< 1	Ag	107	-0.004755	ug/L		< 1
Ag	109	-0.001427	ug/L		< 1	Ag	109	-0.009027	ug/L		< 1
Al	27	0.166198	ug/L		< 50	Al	27	0.09972	ug/L		< 50
As	75	-0.020539	ug/L		< 1	As	75	-0.012135	ug/L		< 1
Ba	137	0.016247	ug/L		< 1	Ba	137	0.014394	ug/L		< 1
Be	9	0.001677	ug/L		< 1	Be	9	0.004487	ug/L		< 1
Ca	44	5.131493	ug/L		< 50	Ca	44	4.913804	ug/L		< 50
Cd	111	-0.011442	ug/L		< 1	Cd	111	-0.017141	ug/L		< 1
Cd	114	-0.012872	ug/L		< 1	Cd	114	-0.017045	ug/L		< 1
Co	59	-0.019614	ug/L		< 1	Co	59	-0.030714	ug/L		< 1
Cr	52	-0.023574	ug/L		< 1	Cr	52	-0.009282	ug/L		< 1
Cu	63	0.020945	ug/L		< 1	Cu	63	0.011875	ug/L		< 1
Cu	65	0.01887	ug/L		< 1	Cu	65	0.015392	ug/L		< 1
Fe	54	-2.730395	ug/L		< 50	Fe	54	-4.680451	ug/L		< 50
Fe	56	-26.552656	ug/L		< 50	Fe	56	-29.560498	ug/L		< 50
Fe	57	1.378244	ug/L		< 50	Fe	57	-0.559566	ug/L		< 50
Ge	72		ug/L	97.845		Ge	72		ug/L	99.25	
Hg	200	0.00231	ug/L		< 0.2	Hg	200	-0.002012	ug/L		< 0.2
Hg	202	-0.000462	ug/L		< 0.2	Hg	202	-0.000355	ug/L		< 0.2
Ho	165		ug/L	98.903		Ho	165		ug/L	101.024	
In	115		ug/L	98.21		In	115		ug/L	99.753	
K	39	0.69439	ug/L		< 50	K	39	-1.442941	ug/L		< 50
Mg	24	0.169756	ug/L		< 50	Mg	24	0.17013	ug/L		< 50
Mg	25	0.237526	ug/L		< 50	Mg	25	0.130263	ug/L		< 50
Mn	55	-0.006818	ug/L		< 5	Mn	55	-0.009424	ug/L		< 5
Na	23	0.964753	ug/L		< 5000	Na	23	0.742876	ug/L		< 5000
Ni	60	0.008442	ug/L		< 1	Ni	60	0.006362	ug/L		< 1
Ni	62	0.010002	ug/L		< 1	Ni	62	-0.011378	ug/L		< 1
P	31	-1.902971	ug/L		< 50	P	31	-3.719835	ug/L		< 50
Pb	208	-0.007987	ug/L		< 1	Pb	208	-0.009598	ug/L		< 1
Sb	121	0.024595	ug/L		< 1	Sb	121	-0.027285	ug/L		< 1
Sb	123	0.025482	ug/L		< 1	Sb	123	-0.030767	ug/L		< 1
Sc	45		ug/L	98.945		Sc	45		ug/L	103.001	
Se	82	-0.089321	ug/L		< 1	Se	82	-0.087207	ug/L		< 1
Tl	205	0.000109	ug/L		< 1	Tl	205	-0.003923	ug/L		< 1
V	51	0.16852	ug/L		< 1	V	51	0.205647	ug/L		< 1
Zn	64	-4.167518	ug/L		< 5	Zn	64	-4.197418	ug/L		< 5
Zn	66	-4.375705	ug/L		< 5	Zn	66	-4.346306	ug/L		< 5
Zn	68	-4.175732	ug/L		< 5	Zn	68	-4.233085	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 19:56:19	Sample Date/Time:	Thursday, August 22, 2013 21:27:40
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.092594	ug/L		< 1	Ag	107	0.017322	ug/L		< 1
Ag	109	0.08897	ug/L		< 1	Ag	109	0.015247	ug/L		< 1
Al	27	0.082167	ug/L		< 50	Al	27	0.175738	ug/L		< 50
As	75	0.104204	ug/L		< 1	As	75	0.136615	ug/L		< 1
Ba	137	0.017637	ug/L		< 1	Ba	137	0.015209	ug/L		< 1
Be	9	0.006625	ug/L		< 1	Be	9	0.007013	ug/L		< 1
Ca	44	3.792852	ug/L		< 50	Ca	44	4.600125	ug/L		< 50
Cd	111	-0.012429	ug/L		< 1	Cd	111	-0.009414	ug/L		< 1
Cd	114	-0.010982	ug/L		< 1	Cd	114	-0.010549	ug/L		< 1
Co	59	-0.028645	ug/L		< 1	Co	59	-0.021275	ug/L		< 1
Cr	52	-0.094642	ug/L		< 1	Cr	52	-0.017707	ug/L		< 1
Cu	63	0.038563	ug/L		< 1	Cu	63	0.033542	ug/L		< 1
Cu	65	0.038448	ug/L		< 1	Cu	65	0.028816	ug/L		< 1
Fe	54	-6.146638	ug/L		< 50	Fe	54	3.7492	ug/L		< 50
Fe	56	-35.823328	ug/L		< 50	Fe	56	-19.868182	ug/L		< 50
Fe	57	0.726963	ug/L		< 50	Fe	57	4.172191	ug/L		< 50
Ge	72		ug/L	87.49		Ge	72		ug/L	89.196	
Hg	200	0.001982	ug/L		< 0.2	Hg	200	0.002913	ug/L		< 0.2
Hg	202	0.000597	ug/L		< 0.2	Hg	202	0.001257	ug/L		< 0.2
Ho	165		ug/L	94.505		Ho	165		ug/L	95.544	
In	115		ug/L	91.385		In	115		ug/L	90.944	
K	39	0.873859	ug/L		< 50	K	39	3.981434	ug/L		< 50
Mg	24	0.388273	ug/L		< 50	Mg	24	0.33346	ug/L		< 50
Mg	25	0.292562	ug/L		< 50	Mg	25	0.405338	ug/L		< 50
Mn	55	0.003266	ug/L		< 5	Mn	55	0.043532	ug/L		< 5
Na	23	3.360789	ug/L		< 5000	Na	23	4.882439	ug/L		< 5000
Ni	60	0.009736	ug/L		< 1	Ni	60	0.018484	ug/L		< 1
Ni	62	0.034331	ug/L		< 1	Ni	62	0.045415	ug/L		< 1
P	31	0.8432	ug/L		< 50	P	31	-0.27048	ug/L		< 50
Pb	208	-0.001903	ug/L		< 1	Pb	208	-0.004011	ug/L		< 1
Sb	121	0.316542	ug/L		< 1	Sb	121	0.065293	ug/L		< 1
Sb	123	0.311184	ug/L		< 1	Sb	123	0.061799	ug/L		< 1
Sc	45		ug/L	92.236		Sc	45		ug/L	89.713	
Se	82	0.124668	ug/L		< 1	Se	82	0.199582	ug/L		< 1
Tl	205	0.006733	ug/L		< 1	Tl	205	0.005399	ug/L		< 1
V	51	0.023175	ug/L		< 1	V	51	0.144611	ug/L		< 1
Zn	64	-4.190459	ug/L		< 5	Zn	64	-4.152414	ug/L		< 5
Zn	66	-4.379651	ug/L		< 5	Zn	66	-4.310299	ug/L		< 5
Zn	68	-4.168576	ug/L		< 5	Zn	68	-4.096778	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 22:59:04	Sample Date/Time:	Friday, August 23, 2013 00:30:30
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.935126	ug/L		< 1	Ag	107	0.084765	ug/L		< 1
Ag	109	1.942273	ug/L		< 1	Ag	109	0.080998	ug/L		< 1
Al	27	0.255746	ug/L		< 50	Al	27	0.122851	ug/L		< 50
As	75	0.377018	ug/L		< 1	As	75	0.025728	ug/L		< 1
Ba	137	0.029943	ug/L		< 1	Ba	137	0.015567	ug/L		< 1
Be	9	0.014011	ug/L		< 1	Be	9	0.009213	ug/L		< 1
Ca	44	6.02287	ug/L		< 50	Ca	44	2.902046	ug/L		< 50
Cd	111	0.008876	ug/L		< 1	Cd	111	-0.015398	ug/L		< 1
Cd	114	0.006823	ug/L		< 1	Cd	114	-0.016941	ug/L		< 1
Co	59	-0.019263	ug/L		< 1	Co	59	-0.026067	ug/L		< 1
Cr	52	-0.001465	ug/L		< 1	Cr	52	-0.066249	ug/L		< 1
Cu	63	0.080106	ug/L		< 1	Cu	63	0.030485	ug/L		< 1
Cu	65	0.07356	ug/L		< 1	Cu	65	0.017267	ug/L		< 1
Fe	54	1.350316	ug/L		< 50	Fe	54	-0.174202	ug/L		< 50
Fe	56	-18.734339	ug/L		< 50	Fe	56	-28.431724	ug/L		< 50
Fe	57	4.830426	ug/L		< 50	Fe	57	2.231186	ug/L		< 50
Ge	72		ug/L	91.891		Ge	72		ug/L	89.912	
Hg	200	0.007438	ug/L		< 0.2	Hg	200	0.001696	ug/L		< 0.2
Hg	202	0.008801	ug/L		< 0.2	Hg	202	0.000049	ug/L		< 0.2
Ho	165		ug/L	95.137		Ho	165		ug/L	95.088	
In	115		ug/L	92.493		In	115		ug/L	91.968	
K	39	5.238189	ug/L		< 50	K	39	2.852857	ug/L		< 50
Mg	24	0.60105	ug/L		< 50	Mg	24	0.361887	ug/L		< 50
Mg	25	0.551776	ug/L		< 50	Mg	25	0.260592	ug/L		< 50
Mn	55	0.039101	ug/L		< 5	Mn	55	0.006387	ug/L		< 5
Na	23	11.240364	ug/L		< 5000	Na	23	7.077148	ug/L		< 5000
Ni	60	0.031855	ug/L		< 1	Ni	60	0.026046	ug/L		< 1
Ni	62	0.054933	ug/L		< 1	Ni	62	0.053701	ug/L		< 1
P	31	-0.857223	ug/L		< 50	P	31	4.117037	ug/L		< 50
Pb	208	0.023207	ug/L		< 1	Pb	208	-0.006897	ug/L		< 1
Sb	121	4.123163	ug/L		< 1	Sb	121	0.045871	ug/L		< 1
Sb	123	4.139029	ug/L		< 1	Sb	123	0.049355	ug/L		< 1
Sc	45		ug/L	94.352		Sc	45		ug/L	92.308	
Se	82	0.522882	ug/L		< 1	Se	82	0.003461	ug/L		< 1
Tl	205	0.018198	ug/L		< 1	Tl	205	-0.010253	ug/L		< 1
V	51	0.289377	ug/L		< 1	V	51	0.055124	ug/L		< 1
Zn	64	-4.114088	ug/L		< 5	Zn	64	-4.176364	ug/L		< 5
Zn	66	-4.309209	ug/L		< 5	Zn	66	-4.351739	ug/L		< 5
Zn	68	-4.156359	ug/L		< 5	Zn	68	-4.121577	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	**QC Std 1**	**Sample ID:**	**QC Std 1**
Sample Date/Time:	**Friday, August 23, 2013 02:01:56**	**Sample Date/Time:**	**Friday, August 23, 2013 03:33:24**
Sample Description:	**Blank**	**Sample Description:**	**Blank**

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.2959	ug/L		< 1	Ag	107	1.105295	ug/L		< 1
Ag	109	0.311169	ug/L		< 1	Ag	109	1.104851	ug/L		< 1
Al	27	0.145084	ug/L		< 50	Al	27	0.285032	ug/L		< 50
As	75	0.032659	ug/L		< 1	As	75	0.328481	ug/L		< 1
Ba	137	0.01616	ug/L		< 1	Ba	137	0.027881	ug/L		< 1
Be	9	0.010512	ug/L		< 1	Be	9	0.024206	ug/L		< 1
Ca	44	4.377962	ug/L		< 50	Ca	44	4.742431	ug/L		< 50
Cd	111	-0.013041	ug/L		< 1	Cd	111	0.001649	ug/L		< 1
Cd	114	-0.013343	ug/L		< 1	Cd	114	0.008277	ug/L		< 1
Co	59	-0.02824	ug/L		< 1	Co	59	-0.012577	ug/L		< 1
Cr	52	-0.077565	ug/L		< 1	Cr	52	-0.097762	ug/L		< 1
Cu	63	0.03905	ug/L		< 1	Cu	63	0.076486	ug/L		< 1
Cu	65	0.027446	ug/L		< 1	Cu	65	0.075679	ug/L		< 1
Fe	54	-1.374353	ug/L		< 50	Fe	54	-2.497028	ug/L		< 50
Fe	56	-29.748133	ug/L		< 50	Fe	56	-37.961189	ug/L		< 50
Fe	57	0.556539	ug/L		< 50	Fe	57	0.6183	ug/L		< 50
Ge	72		ug/L	87.086		Ge	72		ug/L	93.182	
Hg	200	0.001913	ug/L		< 0.2	Hg	200	0.00615	ug/L		< 0.2
Hg	202	0.000322	ug/L		< 0.2	Hg	202	0.00565	ug/L		< 0.2
Ho	165		ug/L	95.287		Ho	165		ug/L	94.432	
In	115		ug/L	91.6		In	115		ug/L	91.767	
K	39	6.442756	ug/L		< 50	K	39	2.706805	ug/L		< 50
Mg	24	0.40944	ug/L		< 50	Mg	24	0.341552	ug/L		< 50
Mg	25	0.355047	ug/L		< 50	Mg	25	0.306897	ug/L		< 50
Mn	55	0.012864	ug/L		< 5	Mn	55	0.019533	ug/L		< 5
Na	23	9.34109	ug/L		< 5000	Na	23	7.002778	ug/L		< 5000
Ni	60	0.020138	ug/L		< 1	Ni	60	0.027345	ug/L		< 1
Ni	62	0.04945	ug/L		< 1	Ni	62	0.002165	ug/L		< 1
P	31	0.74298	ug/L		< 50	P	31	-0.347892	ug/L		< 50
Pb	208	-0.004533	ug/L		< 1	Pb	208	0.022884	ug/L		< 1
Sb	121	0.221065	ug/L		< 1	Sb	121	4.164826	ug/L		< 1
Sb	123	0.221424	ug/L		< 1	Sb	123	4.143334	ug/L		< 1
Sc	45		ug/L	90.155		Sc	45		ug/L	96.906	
Se	82	0.086179	ug/L		< 1	Se	82	0.196622	ug/L		< 1
Tl	205	-0.008016	ug/L		< 1	Tl	205	0.065663	ug/L		< 1
V	51	0.074424	ug/L		< 1	V	51	-0.004735	ug/L		< 1
Zn	64	-4.161933	ug/L		< 5	Zn	64	-4.143944	ug/L		< 5
Zn	66	-4.334594	ug/L		< 5	Zn	66	-4.348512	ug/L		< 5
Zn	68	-4.186626	ug/L		< 5	Zn	68	-4.14568	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Friday, August 23, 2013 05:04:55	Sample Date/Time:	Friday, August 23, 2013 06:36:32
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.192535	ug/L		< 1	Ag	107	0.125436	ug/L		< 1
Ag	109	0.188036	ug/L		< 1	Ag	109	0.127309	ug/L		< 1
Al	27	0.15449	ug/L		< 50	Al	27	0.132461	ug/L		< 50
As	75	0.054187	ug/L		< 1	As	75	-0.102488	ug/L		< 1
Ba	137	0.015224	ug/L		< 1	Ba	137	0.014575	ug/L		< 1
Be	9	0.000051	ug/L		< 1	Be	9	0.000852	ug/L		< 1
Ca	44	4.797252	ug/L		< 50	Ca	44	4.79114	ug/L		< 50
Cd	111	0.000378	ug/L		< 1	Cd	111	-0.010032	ug/L		< 1
Cd	114	0.001223	ug/L		< 1	Cd	114	-0.009814	ug/L		< 1
Co	59	-0.02736	ug/L		< 1	Co	59	-0.020433	ug/L		< 1
Cr	52	-0.086512	ug/L		< 1	Cr	52	-0.089616	ug/L		< 1
Cu	63	0.026321	ug/L		< 1	Cu	63	0.020171	ug/L		< 1
Cu	65	0.023829	ug/L		< 1	Cu	65	0.01998	ug/L		< 1
Fe	54	-6.103426	ug/L		< 50	Fe	54	-5.898347	ug/L		< 50
Fe	56	-38.431253	ug/L		< 50	Fe	56	-36.089282	ug/L		< 50
Fe	57	-1.497549	ug/L		< 50	Fe	57	-0.47131	ug/L		< 50
Ge	72		ug/L	96.05		Ge	72		ug/L	96.759	
Hg	200	0.007606	ug/L		< 0.2	Hg	200	-0.000565	ug/L		< 0.2
Hg	202	0.004278	ug/L		< 0.2	Hg	202	0.00012	ug/L		< 0.2
Ho	165		ug/L	97.508		Ho	165		ug/L	97.599	
In	115		ug/L	94.038		In	115		ug/L	96.307	
K	39	4.534102	ug/L		< 50	K	39	0.838076	ug/L		< 50
Mg	24	0.244765	ug/L		< 50	Mg	24	0.242393	ug/L		< 50
Mg	25	0.180653	ug/L		< 50	Mg	25	0.184953	ug/L		< 50
Mn	55	-0.000807	ug/L		< 5	Mn	55	0.019722	ug/L		< 5
Na	23	3.546328	ug/L		< 5000	Na	23	2.581732	ug/L		< 5000
Ni	60	0.019721	ug/L		< 1	Ni	60	0.016156	ug/L		< 1
Ni	62	0.025363	ug/L		< 1	Ni	62	0.021845	ug/L		< 1
P	31	4.156386	ug/L		< 50	P	31	-0.833033	ug/L		< 50
Pb	208	-0.004798	ug/L		< 1	Pb	208	-0.007756	ug/L		< 1
Sb	121	0.04288	ug/L		< 1	Sb	121	0.016589	ug/L		< 1
Sb	123	0.038006	ug/L		< 1	Sb	123	0.019879	ug/L		< 1
Sc	45		ug/L	99.346		Sc	45		ug/L	99.592	
Se	82	-0.048339	ug/L		< 1	Se	82	-0.079547	ug/L		< 1
Tl	205	0.001425	ug/L		< 1	Tl	205	0.001262	ug/L		< 1
V	51	-0.029494	ug/L		< 1	V	51	0.02282	ug/L		< 1
Zn	64	-4.139356	ug/L		< 5	Zn	64	-4.152061	ug/L		< 5
Zn	66	-4.330827	ug/L		< 5	Zn	66	-4.292928	ug/L		< 5
Zn	68	-4.150901	ug/L		< 5	Zn	68	-4.143167	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	**QC Std 1**	**Sample ID:**	**QC Std 1**
Sample Date/Time:	**Friday, August 23, 2013 08:08:12**	**Sample Date/Time:**	**Friday, August 23, 2013 10:09:23**
Sample Description:	**Blank**	**Sample Description:**	**Blank**

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.320846	ug/L		< 1	Ag	107	2.088401	ug/L		< 1
Ag	109	0.312255	ug/L		< 1	Ag	109	2.246634	ug/L		< 1
Al	27	0.1844	ug/L		< 50	Al	27	0.258775	ug/L		< 50
As	75	0.023144	ug/L		< 1	As	75	0.128128	ug/L		< 1
Ba	137	0.017719	ug/L		< 1	Ba	137	0.025009	ug/L		< 1
Be	9	0.006173	ug/L		< 1	Be	9	0.021764	ug/L		< 1
Ca	44	5.608776	ug/L		< 50	Ca	44	5.205703	ug/L		< 50
Cd	111	-0.013225	ug/L		< 1	Cd	111	-0.004622	ug/L		< 1
Cd	114	-0.012974	ug/L		< 1	Cd	114	-0.002397	ug/L		< 1
Co	59	-0.020821	ug/L		< 1	Co	59	-0.009573	ug/L		< 1
Cr	52	-0.098376	ug/L		< 1	Cr	52	-0.144825	ug/L		< 1
Cu	63	0.022093	ug/L		< 1	Cu	63	0.055325	ug/L		< 1
Cu	65	0.019785	ug/L		< 1	Cu	65	0.057662	ug/L		< 1
Fe	54	-5.641492	ug/L		< 50	Fe	54	-4.767946	ug/L		< 50
Fe	56	-39.172404	ug/L		< 50	Fe	56	-43.363833	ug/L		< 50
Fe	57	-2.889153	ug/L		< 50	Fe	57	-5.167207	ug/L		< 50
Ge	72		ug/L	97.958		Ge	72		ug/L	93.476	
Hg	200	-0.001298	ug/L		< 0.2	Hg	200	0.00372	ug/L		< 0.2
Hg	202	-0.001959	ug/L		< 0.2	Hg	202	0.002916	ug/L		< 0.2
Ho	165		ug/L	97.741		Ho	165		ug/L	95.245	
In	115		ug/L	94.089		In	115		ug/L	94.436	
K	39	-0.025318	ug/L		< 50	K	39	-2.845794	ug/L		< 50
Mg	24	0.194286	ug/L		< 50	Mg	24	0.229383	ug/L		< 50
Mg	25	0.202249	ug/L		< 50	Mg	25	0.142436	ug/L		< 50
Mn	55	0.006131	ug/L		< 5	Mn	55	0.012118	ug/L		< 5
Na	23	2.034555	ug/L		< 5000	Na	23	1.451306	ug/L		< 5000
Ni	60	0.01421	ug/L		< 1	Ni	60	0.012279	ug/L		< 1
Ni	62	0.004518	ug/L		< 1	Ni	62	0.027539	ug/L		< 1
P	31	-1.108328	ug/L		< 50	P	31	-3.56593	ug/L		< 50
Pb	208	-0.004534	ug/L		< 1	Pb	208	0.008587	ug/L		< 1
Sb	121	0.12248	ug/L		< 1	Sb	121	1.763132	ug/L		< 1
Sb	123	0.117317	ug/L		< 1	Sb	123	1.784279	ug/L		< 1
Sc	45		ug/L	101.645		Sc	45		ug/L	100.076	
Se	82	-0.202778	ug/L		< 1	Se	82	-0.029872	ug/L		< 1
Tl	205	-0.001998	ug/L		< 1	Tl	205	0.016074	ug/L		< 1
V	51	-0.088144	ug/L		< 1	V	51	-0.152447	ug/L		< 1
Zn	64	-4.173198	ug/L		< 5	Zn	64	-4.153791	ug/L		< 5
Zn	66	-4.311027	ug/L		< 5	Zn	66	-4.294828	ug/L		< 5
Zn	68	-4.153631	ug/L		< 5	Zn	68	-4.155556	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 16:53:45
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	69.914082	ug/L	69.359		100
Ag	109	70.7916	ug/L	70.23		100
Al	27	97.513398	ug/L	97.319		100
As	75	97.314703	ug/L	96.447		100
Ba	137	97.235405	ug/L	96.945		100
Be	9	98.212635	ug/L	98.311		100
Ca	44	99.450405	ug/L	98.661		100
Cd	111	98.228713	ug/L	98.229		100
Cd	114	99.015291	ug/L	99.015		100
Co	59	97.405097	ug/L	97.308		100
Cr	52	96.117143	ug/L	95.639		100
Cu	63	97.23104	ug/L	97.622		100
Cu	65	96.954656	ug/L	97.344		100
Fe	54	97.161144	ug/L	96.678		100
Fe	56	103.281012	ug/L	102.767		100
Fe	57	92.071286	ug/L	91.613		100
Ge	72		ug/L		99.169	
Hg	200	0.967808	ug/L	96.781		1
Hg	202	0.957973	ug/L	95.797		1
Ho	165		ug/L		102.353	
In	115		ug/L		99.152	
K	39	978.474501	ug/L	97.071		1000
Mg	24	99.578295	ug/L	99.182		100
Mg	25	98.397766	ug/L	98.006		100
Mn	55	95.885316	ug/L	95.313		100
Na	23	99.094923	ug/L	97.63		100
Ni	60	98.485334	ug/L	98.093		100
Ni	62	97.375512	ug/L	96.988		100
Pb	208	97.089425	ug/L	96.319		100
Sb	121	93.248028	ug/L	92.877		100
Sb	123	93.947803	ug/L	93.574		100
Sc	45		ug/L		99.82	
Se	82	98.384228	ug/L	97.41		100
Tl	205	97.966464	ug/L	98.261		100
V	51	96.308991	ug/L	95.355		100
Zn	64	121.339917	ug/L	120.856		100
Zn	66	123.638421	ug/L	123.146		100
Zn	68	121.726215	ug/L	121.241		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 18:31:35
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	67.735473	ug/L	67.198		100
Ag	109	68.751923	ug/L	68.206		100
Al	27	98.987153	ug/L	98.79		100
As	75	98.803177	ug/L	97.922		100
Ba	137	98.662689	ug/L	98.368		100
Be	9	99.726474	ug/L	99.826		100
Ca	44	102.433032	ug/L	101.62		100
Cd	111	99.254413	ug/L	99.254		100
Cd	114	100.380591	ug/L	100.381		100
Co	59	96.01118	ug/L	95.915		100
Cr	52	96.291163	ug/L	95.812		100
Cu	63	97.701232	ug/L	98.094		100
Cu	65	97.83007	ug/L	98.223		100
Fe	54	96.832321	ug/L	96.351		100
Fe	56	103.098073	ug/L	102.585		100
Fe	57	92.27349	ug/L	91.814		100
Ge	72		ug/L		97.073	
Hg	200	0.977529	ug/L	97.753		1
Hg	202	0.985265	ug/L	98.527		1
Ho	165		ug/L		99.444	
In	115		ug/L		98.347	
K	39	971.59077	ug/L	96.388		1000
Mg	24	101.670227	ug/L	101.265		100
Mg	25	100.927952	ug/L	100.526		100
Mn	55	94.721726	ug/L	94.157		100
Na	23	100.799159	ug/L	99.31		100
Ni	60	97.821411	ug/L	97.432		100
Ni	62	97.215688	ug/L	96.828		100
Pb	208	99.180941	ug/L	98.394		100
Sb	121	94.379225	ug/L	94.003		100
Sb	123	94.384196	ug/L	94.008		100
Sc	45		ug/L		100.637	
Se	82	101.099714	ug/L	100.099		100
Tl	205	99.297295	ug/L	99.596		100
V	51	96.257677	ug/L	95.305		100
Zn	64	121.49103	ug/L	121.007		100
Zn	66	123.700434	ug/L	123.208		100
Zn	68	120.893665	ug/L	120.412		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 20:02:50
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	65.103948	ug/L	64.587		100
Ag	109	69.024178	ug/L	68.476		100
Al	27	101.283856	ug/L	101.082		100
As	75	99.763381	ug/L	98.874		100
Ba	137	99.000206	ug/L	98.704		100
Be	9	104.77154	ug/L	104.876		100
Ca	44	101.512399	ug/L	100.707		100
Cd	111	100.621237	ug/L	100.621		100
Cd	114	102.059587	ug/L	102.06		100
Co	59	99.026054	ug/L	98.927		100
Cr	52	96.810212	ug/L	96.329		100
Cu	63	98.359567	ug/L	98.755		100
Cu	65	97.494659	ug/L	97.886		100
Fe	54	99.040933	ug/L	98.548		100
Fe	56	100.698057	ug/L	100.197		100
Fe	57	96.67128	ug/L	96.19		100
Ge	72		ug/L		87.499	
Hg	200	1.010469	ug/L	101.047		1
Hg	202	1.015052	ug/L	101.505		1
Ho	165		ug/L		93.704	
In	115		ug/L		91.169	
K	39	976.980134	ug/L	96.923		1000
Mg	24	103.47945	ug/L	103.067		100
Mg	25	100.435989	ug/L	100.036		100
Mn	55	97.904849	ug/L	97.321		100
Na	23	102.946371	ug/L	101.425		100
Ni	60	100.524971	ug/L	100.124		100
Ni	62	99.474575	ug/L	99.078		100
Pb	208	101.602251	ug/L	100.796		100
Sb	121	96.707736	ug/L	96.322		100
Sb	123	97.540149	ug/L	97.152		100
Sc	45		ug/L		89.589	
Se	82	103.097251	ug/L	102.076		100
Tl	205	101.119062	ug/L	101.423		100
V	51	97.232408	ug/L	96.27		100
Zn	64	123.856758	ug/L	123.363		100
Zn	66	124.671854	ug/L	124.175		100
Zn	68	122.740995	ug/L	122.252		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 21:34:11
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	67.804204	ug/L	67.266		100
Ag	109	67.981978	ug/L	67.442		100
Al	27	101.366747	ug/L	101.164		100
As	75	100.645487	ug/L	99.748		100
Ba	137	100.471142	ug/L	100.171		100
Be	9	101.185297	ug/L	101.287		100
Ca	44	101.677894	ug/L	100.871		100
Cd	111	100.433098	ug/L	100.433		100
Cd	114	102.045449	ug/L	102.045		100
Co	59	99.078128	ug/L	98.979		100
Cr	52	98.876465	ug/L	98.385		100
Cu	63	98.387356	ug/L	98.782		100
Cu	65	98.084864	ug/L	98.479		100
Fe	54	104.337515	ug/L	103.818		100
Fe	56	107.375825	ug/L	106.842		100
Fe	57	100.581864	ug/L	100.081		100
Ge	72		ug/L		90.07	
Hg	200	1.011716	ug/L	101.172		1
Hg	202	0.991225	ug/L	99.122		1
Ho	165		ug/L		95.562	
In	115		ug/L		92.067	
K	39	996.864603	ug/L	98.895		1000
Mg	24	103.715803	ug/L	103.303		100
Mg	25	102.576004	ug/L	102.167		100
Mn	55	98.305367	ug/L	97.719		100
Na	23	105.384256	ug/L	103.827		100
Ni	60	99.454849	ug/L	99.059		100
Ni	62	98.298007	ug/L	97.906		100
Pb	208	101.783664	ug/L	100.976		100
Sb	121	96.514252	ug/L	96.13		100
Sb	123	97.299417	ug/L	96.912		100
Sc	45		ug/L		92.018	
Se	82	102.960173	ug/L	101.941		100
Tl	205	102.519788	ug/L	102.828		100
V	51	98.469259	ug/L	97.494		100
Zn	64	123.40103	ug/L	122.909		100
Zn	66	123.038779	ug/L	122.549		100
Zn	68	122.273236	ug/L	121.786		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 23:05:35
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	68.003482	ug/L	67.464		100
Ag	109	66.179581	ug/L	65.654		100
Al	27	102.583628	ug/L	102.379		100
As	75	101.639361	ug/L	100.733		100
Ba	137	100.627271	ug/L	100.326		100
Be	9	104.362915	ug/L	104.467		100
Ca	44	107.592255	ug/L	106.738		100
Cd	111	101.155908	ug/L	101.156		100
Cd	114	102.562784	ug/L	102.563		100
Co	59	100.616679	ug/L	100.516		100
Cr	52	99.204695	ug/L	98.711		100
Cu	63	101.395534	ug/L	101.803		100
Cu	65	101.45633	ug/L	101.864		100
Fe	54	105.047443	ug/L	104.525		100
Fe	56	116.137623	ug/L	115.56		100
Fe	57	100.419214	ug/L	99.92		100
Ge	72		ug/L		91.854	
Hg	200	1.049951	ug/L	104.995		1
Hg	202	1.022122	ug/L	102.212		1
Ho	165		ug/L		94.357	
In	115		ug/L		93.397	
K	39	1016.46834	ug/L	100.84		1000
Mg	24	103.931365	ug/L	103.517		100
Mg	25	103.163627	ug/L	102.753		100
Mn	55	99.351634	ug/L	98.759		100
Na	23	110.958606	ug/L	109.319		100
Ni	60	102.687461	ug/L	102.278		100
Ni	62	101.63019	ug/L	101.225		100
Pb	208	103.793883	ug/L	102.97		100
Sb	121	99.913319	ug/L	99.515		100
Sb	123	100.29271	ug/L	99.893		100
Sc	45		ug/L		93.024	
Se	82	103.547842	ug/L	102.523		100
Tl	205	103.568137	ug/L	103.88		100
V	51	100.786946	ug/L	99.789		100
Zn	64	126.685635	ug/L	126.181		100
Zn	66	128.337187	ug/L	127.826		100
Zn	68	126.342695	ug/L	125.839		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 00:37:01
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	64.037175	ug/L	63.529		100
Ag	109	68.951265	ug/L	68.404		100
Al	27	102.560648	ug/L	102.356		100
As	75	100.844624	ug/L	99.945		100
Ba	137	101.627175	ug/L	101.323		100
Be	9	104.648095	ug/L	104.753		100
Ca	44	101.466583	ug/L	100.661		100
Cd	111	102.035907	ug/L	102.036		100
Cd	114	102.928967	ug/L	102.929		100
Co	59	100.455342	ug/L	100.355		100
Cr	52	99.690162	ug/L	99.194		100
Cu	63	101.297566	ug/L	101.704		100
Cu	65	101.17126	ug/L	101.578		100
Fe	54	101.2291	ug/L	100.725		100
Fe	56	107.96594	ug/L	107.429		100
Fe	57	99.357732	ug/L	98.863		100
Ge	72		ug/L		92.132	
Hg	200	1.018208	ug/L	101.821		1
Hg	202	1.016246	ug/L	101.625		1
Ho	165		ug/L		94.63	
In	115		ug/L		91.579	
K	39	1005.15101	ug/L	99.717		1000
Mg	24	104.233247	ug/L	103.818		100
Mg	25	104.143409	ug/L	103.728		100
Mn	55	99.08873	ug/L	98.498		100
Na	23	108.658684	ug/L	107.053		100
Ni	60	102.031383	ug/L	101.625		100
Ni	62	101.076665	ug/L	100.674		100
Pb	208	102.921794	ug/L	102.105		100
Sb	121	98.283805	ug/L	97.892		100
Sb	123	99.257177	ug/L	98.862		100
Sc	45		ug/L		91.93	
Se	82	102.647958	ug/L	101.632		100
Tl	205	103.062233	ug/L	103.372		100
V	51	100.193129	ug/L	99.201		100
Zn	64	128.504416	ug/L	127.992		100
Zn	66	127.953398	ug/L	127.444		100
Zn	68	127.236971	ug/L	126.73		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 2	Sample ID:	QC Std 2
Sample Date/Time:	Friday, August 23, 2013 02:08:27	Sample Date/Time:	Friday, August 23, 2013 03:39:56
Sample Description:	CV-Trace Metals	Sample Description:	CV-Trace Metals

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	66.138875	ug/L	65.614		100	Ag	107	63.682888	ug/L	63.177		100
Ag	109	65.641889	ug/L	65.121		100	Ag	109	63.503761	ug/L	63		100
Al	27	102.574772	ug/L	102.37		100	Al	27	102.429767	ug/L	102.225		100
As	75	101.973872	ug/L	101.064		100	As	75	100.434766	ug/L	99.539		100
Ba	137	101.207305	ug/L	100.905		100	Ba	137	95.044052	ug/L	94.76		100
Be	9	105.135192	ug/L	105.24		100	Be	9	108.541807	ug/L	108.65		100
Ca	44	106.467333	ug/L	105.622		100	Ca	44	105.36572	ug/L	104.529		100
Cd	111	100.872076	ug/L	100.872		100	Cd	111	100.987275	ug/L	100.987		100
Cd	114	102.847327	ug/L	102.847		100	Cd	114	102.409167	ug/L	102.409		100
Co	59	102.304182	ug/L	102.202		100	Co	59	95.593861	ug/L	95.498		100
Cr	52	101.084237	ug/L	100.581		100	Cr	52	94.723416	ug/L	94.252		100
Cu	63	102.179425	ug/L	102.59		100	Cu	63	97.711007	ug/L	98.103		100
Cu	65	102.315609	ug/L	102.727		100	Cu	65	98.00058	ug/L	98.394		100
Fe	54	106.184717	ug/L	105.656		100	Fe	54	96.856834	ug/L	96.375		100
Fe	56	111.208717	ug/L	110.655		100	Fe	56	95.218589	ug/L	94.745		100
Fe	57	104.178694	ug/L	103.66		100	Fe	57	93.138121	ug/L	92.675		100
Ge	72		ug/L		88.87		Ge	72		ug/L		91.939	
Hg	200	1.017395	ug/L	101.74		1	Hg	200	0.992961	ug/L	99.296		1
Hg	202	1.010598	ug/L	101.06		1	Hg	202	1.014404	ug/L	101.44		1
Ho	165		ug/L		94.347		Ho	165		ug/L		95.855	
In	115		ug/L		91.197		In	115		ug/L		95.28	
K	39	1014.38792	ug/L	100.634		1000	K	39	993.364742	ug/L	98.548		1000
Mg	24	105.281987	ug/L	104.863		100	Mg	24	105.479867	ug/L	105.06		100
Mg	25	104.227762	ug/L	103.813		100	Mg	25	103.66944	ug/L	103.256		100
Mn	55	101.255495	ug/L	100.652		100	Mn	55	94.654511	ug/L	94.09		100
Na	23	110.364948	ug/L	108.734		100	Na	23	108.930136	ug/L	107.32		100
Ni	60	102.938736	ug/L	102.529		100	Ni	60	97.656866	ug/L	97.268		100
Ni	62	101.844004	ug/L	101.438		100	Ni	62	97.315758	ug/L	96.928		100
Pb	208	101.348242	ug/L	100.544		100	Pb	208	99.684376	ug/L	98.893		100
Sb	121	98.728466	ug/L	98.335		100	Sb	121	99.114271	ug/L	98.719		100
Sb	123	98.556842	ug/L	98.164		100	Sb	123	99.070941	ug/L	98.676		100
Sc	45		ug/L		89.433		Sc	45		ug/L		96.532	
Se	82	103.467412	ug/L	102.443		100	Se	82	104.143032	ug/L	103.112		100
Tl	205	100.662797	ug/L	100.966		100	Tl	205	100.117574	ug/L	100.419		100
V	51	101.412909	ug/L	100.409		100	V	51	96.057061	ug/L	95.106		100
Zn	64	129.241072	ug/L	128.726		100	Zn	64	123.705321	ug/L	123.212		100
Zn	66	129.128675	ug/L	128.614		100	Zn	66	125.521567	ug/L	125.021		100
Zn	68	126.35529	ug/L	125.852		100	Zn	68	122.091284	ug/L	121.605		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 05:11:26
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	64.235545	ug/L	63.726		100
Ag	109	63.784405	ug/L	63.278		100
Al	27	102.424037	ug/L	102.22		100
As	75	99.256771	ug/L	98.371		100
Ba	137	97.550877	ug/L	97.259		100
Be	9	106.755427	ug/L	106.862		100
Ca	44	102.313774	ug/L	101.502		100
Cd	111	100.916412	ug/L	100.916		100
Cd	114	102.171193	ug/L	102.171		100
Co	59	95.541493	ug/L	95.446		100
Cr	52	95.45828	ug/L	94.983		100
Cu	63	97.946505	ug/L	98.34		100
Cu	65	99.200802	ug/L	99.599		100
Fe	54	90.736529	ug/L	90.285		100
Fe	56	90.354464	ug/L	89.905		100
Fe	57	93.091632	ug/L	92.628		100
Ge	72		ug/L		96.232	
Hg	200	1.015604	ug/L	101.56		1
Hg	202	1.003453	ug/L	100.345		1
Ho	165		ug/L		95.299	
In	115		ug/L		95.261	
K	39	980.965395	ug/L	97.318		1000
Mg	24	104.223608	ug/L	103.808		100
Mg	25	104.147767	ug/L	103.733		100
Mn	55	94.145189	ug/L	93.584		100
Na	23	106.948951	ug/L	105.368		100
Ni	60	96.585696	ug/L	96.201		100
Ni	62	97.209837	ug/L	96.823		100
Pb	208	100.679	ug/L	99.88		100
Sb	121	97.056391	ug/L	96.67		100
Sb	123	97.225689	ug/L	96.838		100
Sc	45		ug/L		98.739	
Se	82	100.414807	ug/L	99.421		100
Tl	205	100.816443	ug/L	101.12		100
V	51	96.729795	ug/L	95.772		100
Zn	64	125.19332	ug/L	124.695		100
Zn	66	125.665517	ug/L	125.165		100
Zn	68	123.851061	ug/L	123.358		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 06:43:03
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	62.609552	ug/L	62.113		100
Ag	109	63.273475	ug/L	62.771		100
Al	27	100.076917	ug/L	99.877		100
As	75	98.313816	ug/L	97.437		100
Ba	137	97.237102	ug/L	96.946		100
Be	9	102.933374	ug/L	103.036		100
Ca	44	103.011604	ug/L	102.194		100
Cd	111	98.498035	ug/L	98.498		100
Cd	114	101.330036	ug/L	101.33		100
Co	59	94.399723	ug/L	94.305		100
Cr	52	94.047243	ug/L	93.579		100
Cu	63	96.867734	ug/L	97.257		100
Cu	65	97.863828	ug/L	98.257		100
Fe	54	91.29807	ug/L	90.844		100
Fe	56	86.650634	ug/L	86.22		100
Fe	57	88.86027	ug/L	88.418		100
Ge	72		ug/L		96.379	
Hg	200	0.974967	ug/L	97.497		1
Hg	202	0.982039	ug/L	98.204		1
Ho	165		ug/L		98.411	
In	115		ug/L		97.601	
K	39	965.769718	ug/L	95.81		1000
Mg	24	102.952994	ug/L	102.543		100
Mg	25	100.97749	ug/L	100.575		100
Mn	55	92.639351	ug/L	92.087		100
Na	23	103.633364	ug/L	102.102		100
Ni	60	95.480671	ug/L	95.1		100
Ni	62	95.519545	ug/L	95.139		100
Pb	208	98.701666	ug/L	97.918		100
Sb	121	95.220348	ug/L	94.841		100
Sb	123	95.029539	ug/L	94.651		100
Sc	45		ug/L		102.062	
Se	82	100.272139	ug/L	99.279		100
Tl	205	98.809016	ug/L	99.106		100
V	51	93.941421	ug/L	93.011		100
Zn	64	122.211341	ug/L	121.724		100
Zn	66	123.407966	ug/L	122.916		100
Zn	68	120.210816	ug/L	119.732		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 08:14:43
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	58.922382	ug/L	58.455		100
Ag	109	61.920503	ug/L	61.429		100
Al	27	101.392347	ug/L	101.19		100
As	75	99.463509	ug/L	98.576		100
Ba	137	99.822294	ug/L	99.524		100
Be	9	102.974327	ug/L	103.077		100
Ca	44	104.080867	ug/L	103.255		100
Cd	111	99.508453	ug/L	99.508		100
Cd	114	102.535126	ug/L	102.535		100
Co	59	94.220617	ug/L	94.126		100
Cr	52	94.84688	ug/L	94.375		100
Cu	63	97.784891	ug/L	98.178		100
Cu	65	99.018398	ug/L	99.416		100
Fe	54	89.002146	ug/L	88.559		100
Fe	56	80.359932	ug/L	79.96		100
Fe	57	86.344916	ug/L	85.915		100
Ge	72		ug/L		96.745	
Hg	200	0.984435	ug/L	98.443		1
Hg	202	1.025982	ug/L	102.598		1
Ho	165		ug/L		96.613	
In	115		ug/L		95.201	
K	39	967.699225	ug/L	96.002		1000
Mg	24	102.535686	ug/L	102.127		100
Mg	25	102.682921	ug/L	102.274		100
Mn	55	93.062695	ug/L	92.508		100
Na	23	104.278652	ug/L	102.738		100
Ni	60	95.510801	ug/L	95.13		100
Ni	62	96.583155	ug/L	96.198		100
Pb	208	101.792981	ug/L	100.985		100
Sb	121	98.124756	ug/L	97.734		100
Sb	123	98.661107	ug/L	98.268		100
Sc	45		ug/L		101.956	
Se	82	101.066692	ug/L	100.066		100
Tl	205	101.693467	ug/L	101.999		100
V	51	95.340873	ug/L	94.397		100
Zn	64	123.696682	ug/L	123.204		100
Zn	66	124.863008	ug/L	124.366		100
Zn	68	122.198556	ug/L	121.712		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 10:15:55
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	60.295857	ug/L	59.817		100
Ag	109	61.661689	ug/L	61.172		100
Al	27	105.943549	ug/L	105.732		100
As	75	102.007407	ug/L	101.098		100
Ba	137	100.907863	ug/L	100.606		100
Be	9	108.562924	ug/L	108.672		100
Ca	44	106.017709	ug/L	105.176		100
Cd	111	104.05592	ug/L	104.056		100
Cd	114	104.861732	ug/L	104.862		100
Co	59	97.256944	ug/L	97.16		100
Cr	52	95.789317	ug/L	95.313		100
Cu	63	99.417535	ug/L	99.817		100
Cu	65	100.57804	ug/L	100.982		100
Fe	54	100.31444	ug/L	99.815		100
Fe	56	85.602145	ug/L	85.176		100
Fe	57	91.544742	ug/L	91.089		100
Ge	72		ug/L		94.285	
Hg	200	1.0408	ug/L	104.08		1
Hg	202	1.035454	ug/L	103.545		1
Ho	165		ug/L		94.292	
In	115		ug/L		92.899	
K	39	980.081629	ug/L	97.23		1000
Mg	24	109.07166	ug/L	108.637		100
Mg	25	107.504158	ug/L	107.076		100
Mn	55	97.582665	ug/L	97.001		100
Na	23	108.549197	ug/L	106.945		100
Ni	60	98.478255	ug/L	98.086		100
Ni	62	98.846844	ug/L	98.453		100
Pb	208	103.214777	ug/L	102.396		100
Sb	121	101.770251	ug/L	101.365		100
Sb	123	102.008994	ug/L	101.603		100
Sc	45		ug/L		98.79	
Se	82	102.826012	ug/L	101.808		100
Tl	205	102.159655	ug/L	102.467		100
V	51	96.286774	ug/L	95.333		100
Zn	64	125.387464	ug/L	124.888		100
Zn	66	128.01618	ug/L	127.506		100
Zn	68	126.149596	ug/L	125.647		100

Sample ID: 123529.06
Sample Date/Time: Thursday, August 22, 2013 19:49:47
Autosampler Position: 35
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.06.77855

B tMn

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		27920.149	ug/L	
Be	9	0.012272	8.000	ug/L	0.003
B	10	254.088236	30215.814	ug/L	2.899
B	11	265.690030	165938.041	ug/L	1.070
C	12		719961.448	ug/L	
Na	23	117885.638161	692229201.001	ug/L	415.950
Mg	24	25242.719747	101612483.413	ug/L	74.904
Mg	25	25143.861854	14695146.977	ug/L	40.737
Al	27	8.867172	65931.504	ug/L	0.122
Si	28		22310883.248	ug/L	
P	31	90.315666	44476.308	ug/L	2.650
S	32		72917799.840	ug/L	
Cl	35		11154880.875	ug/L	
K	39	18886.399184	161130140.049	ug/L	277.200
Ca	44	29129.426083	8378220.583	ug/L	52.043
Sc	45		174365.146	ug/L	
Ti	47	2.174881	1734.850	ug/L	0.023
Ti	48	35.634735	288498.223	ug/L	0.578
V	51	0.497615	30113.159	ug/L	0.054
ClO	51		30296.097	ug/L	
Cr	52	-0.016841	7374.775	ug/L	0.038
Cr	53	1.472927	9936.530	ug/L	0.039
Fe	54	3565.955462	2523182.444	ug/L	87.600
Mn	55	636.733655	9087311.069	ug/L	17.452
Fe	56	3534.308991	43398168.991	ug/L	121.430
Fe	57	3576.397421	1000171.984	ug/L	130.895
Co	59	0.681209	7572.228	ug/L	0.027
Ni	60	8.726651	18400.119	ug/L	0.286
Ni	62	7.718549	2535.379	ug/L	0.056
Cu	63	1.478811	7229.279	ug/L	0.019
Zn	64	-1.705092	5745.550	ug/L	0.013
Cu	65	0.330604	880.718	ug/L	0.000
Zn	66	-2.314796	2979.852	ug/L	0.003
Zn	68	-0.192585	3804.501	ug/L	0.108
Ge	72		117501.274	ug/L	
As	75	7.054542	7996.993	ug/L	0.195
Se	82	16.471213	2261.438	ug/L	0.765
ArCl	77		890.719	ug/L	
Br	79		820567.001	ug/L	

Br	81		885955.282	ug/L	
Y	89		347509.719	ug/L	
Mo	95	7.197342	21109.045	ug/L	0.176
Rh	103		318575.751	ug/L	
Ag	107	0.087244	1521.476	ug/L	0.004
Ag	109	0.082007	1431.127	ug/L	0.004
Cd	111	0.032455	171.670	ug/L	0.004
Cd	114	0.034858	408.347	ug/L	0.003
In	115		474625.819	ug/L	
Sb	121	0.563861	4772.967	ug/L	0.005
Sb	123	0.565307	3740.044	ug/L	0.013
Ba	137	78.453109	345130.484	ug/L	0.097
Ba	138	77.870117	2224332.111	ug/L	0.582
Tb	159		720407.573	ug/L	
Ho	165		727072.543	ug/L	
Hg	200	0.011307	45.001	ug/L	0.006
Hg	202	0.005574	44.667	ug/L	0.002
Tl	205	-0.007351	1929.559	ug/L	0.009
Pb	208	0.158586	9061.506	ug/L	0.001
Bi	209		589737.960	ug/L	
Se	77	2.052071	877.718	ug/L	0.275
Se	78	-4.052890	6691.388	ug/L	0.374

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		103.358
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 79.011
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 81.497
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 87.886
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.07
Sample Date/Time: Thursday, August 22, 2013 20:22:23
Autosampler Position: 36
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.07.77860

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		27944.248	ug/L	
Be	9	0.020985	12.000	ug/L	0.010
B	10	250.806643	30236.531	ug/L	0.731
B	11	258.645049	163798.447	ug/L	0.151
C	12		733161.322	ug/L	
Na	23	112379.416430	669061700.541	ug/L	981.115
Mg	24	24859.807660	101450657.688	ug/L	211.258
Mg	25	24808.898278	14700495.789	ug/L	198.263
Al	27	7.607569	58456.523	ug/L	0.193
Si	28		23903762.958	ug/L	
P	31	184.301713	80082.538	ug/L	4.265
S	32		75051729.312	ug/L	
Cl	35		11325939.372	ug/L	
K	39	18530.962369	160270570.921	ug/L	61.606
Ca	44	28922.559800	8434923.991	ug/L	90.709
Sc	45		176805.230	ug/L	
Ti	47	2.650040	2114.601	ug/L	0.019
Ti	48	35.453201	291055.615	ug/L	0.436
V	51	0.529798	30875.015	ug/L	0.005
ClO	51		31734.634	ug/L	
Cr	52	-0.008940	7554.058	ug/L	0.017
Cr	53	1.594353	10215.182	ug/L	0.204
Fe	54	9555.626265	6766399.152	ug/L	61.421
Mn	55	650.815483	9420805.238	ug/L	6.054
Fe	56	9471.225479	114024319.807	ug/L	74.753
Fe	57	9709.820280	2738427.652	ug/L	148.650
Co	59	0.707742	7951.889	ug/L	0.021
Ni	60	8.945740	19126.960	ug/L	0.210
Ni	62	7.846816	2610.067	ug/L	0.431
Cu	63	1.441741	7150.216	ug/L	0.042
Zn	64	-1.650632	5920.361	ug/L	0.059
Cu	65	0.319919	867.717	ug/L	0.001
Zn	66	-2.236151	3103.894	ug/L	0.059
Zn	68	0.286325	4239.364	ug/L	0.068
Ge	72		120906.835	ug/L	
As	75	9.060691	10621.898	ug/L	0.043
Se	82	16.643029	2350.186	ug/L	0.162
ArCl	77		871.051	ug/L	
Br	79		852731.734	ug/L	

Br	81		921948.917	ug/L	
Y	89		351419.239	ug/L	
Mo	95	6.832458	20633.980	ug/L	0.326
Rh	103		320487.722	ug/L	
Ag	107	0.086145	1554.815	ug/L	0.006
Ag	109	0.087867	1532.145	ug/L	0.014
Cd	111	0.019625	142.336	ug/L	0.009
Cd	114	0.018666	319.342	ug/L	0.003
In	115		488464.932	ug/L	
Sb	121	0.411001	3779.156	ug/L	0.000
Sb	123	0.419958	3007.971	ug/L	0.006
Ba	137	93.351598	422615.338	ug/L	2.258
Ba	138	91.083882	2677634.802	ug/L	3.080
Tb	159		724021.455	ug/L	
Ho	165		733079.084	ug/L	
Hg	200	0.014647	53.667	ug/L	0.001
Hg	202	0.011030	62.668	ug/L	0.000
Tl	205	-0.017041	1607.160	ug/L	0.008
Pb	208	0.064814	4503.807	ug/L	0.003
Bi	209		581821.317	ug/L	
Se	77	2.294490	906.388	ug/L	0.538
Se	78	-3.809310	6787.027	ug/L	0.330

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		104.804
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	81.301
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.873
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	88.612
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.08
Sample Date/Time: Thursday, August 22, 2013 20:28:56
Autosampler Position: 37
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.08.77861

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		27369.161	ug/L	
Be	9	0.021664	12.667	ug/L	0.002
B	10	239.281449	29913.811	ug/L	8.995
B	11	251.540646	165165.644	ug/L	5.134
C	12		771816.215	ug/L	
Na	23	109981.173030	678978716.225	ug/L	2432.897
Mg	24	24404.263436	103270610.768	ug/L	481.304
Mg	25	24463.369235	15031180.479	ug/L	540.065
Al	27	14.175717	105967.903	ug/L	0.002
Si	28		25361405.395	ug/L	
P	31	301.471428	128291.823	ug/L	5.324
S	32		77501296.897	ug/L	
Cl	35		11788188.056	ug/L	
K	39	18356.624913	164617617.485	ug/L	437.564
Ca	44	28458.796003	8605483.529	ug/L	548.051
Sc	45		183298.826	ug/L	
Ti	47	3.232727	2644.078	ug/L	0.076
Ti	48	32.820015	279445.227	ug/L	2.135
V	51	0.521515	31919.655	ug/L	0.121
ClO	51		32562.975	ug/L	
Cr	52	-0.026032	7670.171	ug/L	0.001
Cr	53	1.350384	10303.612	ug/L	0.391
Fe	54	12223.740273	8959383.691	ug/L	265.042
Mn	55	636.829126	9558921.603	ug/L	9.334
Fe	56	12211.141007	151735156.302	ug/L	287.090
Fe	57	12460.099023	3641666.885	ug/L	294.385
Co	59	0.769998	8912.790	ug/L	0.006
Ni	60	9.222314	20451.188	ug/L	0.169
Ni	62	8.108572	2797.792	ug/L	0.012
Cu	63	1.660415	8505.397	ug/L	0.035
Zn	64	-2.270582	4998.999	ug/L	0.105
Cu	65	0.584879	1551.815	ug/L	0.003
Zn	66	-2.838680	2555.719	ug/L	0.105
Zn	68	-0.166171	4022.931	ug/L	0.127
Ge	72		123212.131	ug/L	
As	75	10.524003	12607.314	ug/L	0.159
Se	82	17.257154	2482.830	ug/L	0.617
ArCl	77		927.057	ug/L	
Br	79		880525.073	ug/L	

Br	81		949712.363	ug/L	
Y	89		355684.230	ug/L	
Mo	95	7.165544	22038.596	ug/L	0.208
Rh	103		324398.450	ug/L	
Ag	107	0.053884	1202.758	ug/L	0.005
Ag	109	0.045041	1089.076	ug/L	0.005
Cd	111	0.037878	188.671	ug/L	0.003
Cd	114	0.041401	455.016	ug/L	0.006
In	115		482372.149	ug/L	
Sb	121	0.316971	3043.540	ug/L	0.009
Sb	123	0.320251	2401.160	ug/L	0.013
Ba	137	104.789172	468479.811	ug/L	1.579
Ba	138	101.373560	2943023.842	ug/L	0.639
Tb	159		731614.416	ug/L	
Ho	165		732278.721	ug/L	
Hg	200	0.019106	64.334	ug/L	0.002
Hg	202	0.013559	70.668	ug/L	0.004
Tl	205	-0.020526	1484.136	ug/L	0.003
Pb	208	0.133943	7909.382	ug/L	0.006
Bi	209		594164.932	ug/L	
Se	77	2.302946	907.388	ug/L	0.279
Se	78	-3.482831	6915.215	ug/L	0.403

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		108.653
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	82.851
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	82.827
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	88.515
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.09
Sample Date/Time: Thursday, August 22, 2013 20:35:28
Autosampler Position: 38
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.09.77862

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		34897.569	ug/L	
Be	9	0.040800	21.000	ug/L	0.011
B	10	233.532656	28751.040	ug/L	4.892
B	11	247.642073	160140.448	ug/L	6.209
C	12		736828.219	ug/L	
Na	23	67145.579918	408179888.745	ug/L	357.294
Mg	24	15859.434167	66088218.855	ug/L	237.111
Mg	25	15940.981070	9644775.504	ug/L	116.479
Al	27	92.641547	637672.255	ug/L	0.526
Si	28		22666339.883	ug/L	
P	31	154.313100	70365.013	ug/L	6.756
S	32		78726080.689	ug/L	
Cl	35		8914101.398	ug/L	
K	39	16490.798791	145663684.101	ug/L	95.082
Ca	44	34681.657197	10325951.196	ug/L	480.498
Sc	45		180491.635	ug/L	
Ti	47	4.619347	3661.774	ug/L	0.132
Ti	48	40.947680	343174.821	ug/L	1.184
V	51	-0.008409	25532.089	ug/L	0.063
ClO	51		25894.772	ug/L	
Cr	52	0.109457	8836.327	ug/L	0.010
Cr	53	-0.292046	8266.842	ug/L	0.151
Fe	54	6943.014738	5035121.078	ug/L	88.207
Mn	55	2486.506374	36754196.853	ug/L	66.257
Fe	56	6910.367452	85603990.848	ug/L	174.667
Fe	57	7034.509864	2029281.287	ug/L	415.557
Co	59	6.247274	66356.167	ug/L	0.179
Ni	60	16.742562	36531.645	ug/L	0.222
Ni	62	15.372519	5190.867	ug/L	0.053
Cu	63	1.144795	5849.275	ug/L	0.040
Zn	64	3.822144	15969.177	ug/L	0.220
Cu	65	0.510919	1348.780	ug/L	0.000
Zn	66	3.487013	9377.596	ug/L	0.077
Zn	68	6.522792	9396.615	ug/L	0.013
Ge	72		125332.870	ug/L	
As	75	14.694661	17987.131	ug/L	0.135
Se	82	5.571239	835.135	ug/L	0.132
ArCl	77		725.036	ug/L	
Br	79		296201.825	ug/L	

Br	81		332373.762	ug/L	
Y	89		362031.431	ug/L	
Mo	95	32.730052	101672.251	ug/L	0.776
Rh	103		331858.813	ug/L	
Ag	107	0.011950	790.042	ug/L	0.003
Ag	109	0.016413	826.379	ug/L	0.001
Cd	111	0.078579	303.675	ug/L	0.014
Cd	114	0.068190	635.695	ug/L	0.005
In	115		494766.384	ug/L	
Sb	121	0.431567	3982.579	ug/L	0.005
Sb	123	0.426983	3088.247	ug/L	0.009
Ba	137	123.552183	566540.148	ug/L	0.324
Ba	138	120.415842	3585771.091	ug/L	1.023
Tb	159		748230.624	ug/L	
Ho	165		758816.469	ug/L	
Hg	200	0.052853	151.003	ug/L	0.006
Hg	202	0.040090	161.670	ug/L	0.000
Tl	205	0.417960	17551.102	ug/L	0.005
Pb	208	0.348882	19191.608	ug/L	0.006
Bi	209		603027.344	ug/L	
Se	77	0.831533	733.370	ug/L	0.183
Se	78	-3.195122	7028.180	ug/L	0.197

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		106.989
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	84.277
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	84.955
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.723
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.10
Sample Date/Time: Thursday, August 22, 2013 20:42:00
Autosampler Position: 39
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.10.77863

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		34478.663	ug/L	
Be	9	0.069670	34.334	ug/L	0.010
B	10	229.909960	28770.766	ug/L	8.873
B	11	240.004159	157757.789	ug/L	8.157
C	12		758006.285	ug/L	
Na	23	65978.133667	407721234.999	ug/L	2071.860
Mg	24	15883.742388	67281976.738	ug/L	382.158
Mg	25	15950.939989	9810551.027	ug/L	413.497
Al	27	116.639554	814142.184	ug/L	1.722
Si	28		24849133.215	ug/L	
P	31	260.553548	112617.829	ug/L	1.556
S	32		77080446.078	ug/L	
Cl	35		8660552.763	ug/L	
K	39	16656.838074	149570816.498	ug/L	134.380
Ca	44	35657.412166	10792024.453	ug/L	424.098
Sc	45		183502.893	ug/L	
Ti	47	5.842985	4673.581	ug/L	0.059
Ti	48	45.509737	387782.214	ug/L	2.418
V	51	0.065479	26786.361	ug/L	0.093
ClO	51		27046.117	ug/L	
Cr	52	0.150499	9377.192	ug/L	0.035
Cr	53	-0.251557	8449.347	ug/L	0.372
Fe	54	10980.679153	8061370.838	ug/L	544.958
Mn	55	2104.713317	31619998.771	ug/L	90.681
Fe	56	11131.908357	138671605.094	ug/L	402.615
Fe	57	11500.349479	3365235.517	ug/L	248.084
Co	59	6.760936	72933.170	ug/L	0.173
Ni	60	19.449060	43132.192	ug/L	0.462
Ni	62	18.047172	6189.168	ug/L	0.354
Cu	63	1.342459	6929.710	ug/L	0.040
Zn	64	8.308015	24497.996	ug/L	0.382
Cu	65	0.677176	1780.859	ug/L	0.024
Zn	66	7.890633	14387.526	ug/L	0.510
Zn	68	11.350418	13541.214	ug/L	0.299
Ge	72		123267.423	ug/L	
As	75	23.163066	27999.428	ug/L	0.320
Se	82	5.669343	835.148	ug/L	0.253
ArCl	77		720.369	ug/L	
Br	79		293978.106	ug/L	

Br	81		331865.958	ug/L	
Y	89		362336.941	ug/L	
Mo	95	34.180344	104395.508	ug/L	1.789
Rh	103		332087.382	ug/L	
Ag	107	0.012179	793.376	ug/L	0.001
Ag	109	0.008101	742.704	ug/L	0.001
Cd	111	0.086693	325.676	ug/L	0.000
Cd	114	0.074841	678.032	ug/L	0.000
In	115		495210.706	ug/L	
Sb	121	0.510844	4582.201	ug/L	0.012
Sb	123	0.506345	3556.588	ug/L	0.026
Ba	137	146.727113	673462.956	ug/L	2.736
Ba	138	143.647101	4281236.140	ug/L	0.888
Tb	159		744331.924	ug/L	
Ho	165		747627.346	ug/L	
Hg	200	0.103887	274.340	ug/L	0.003
Hg	202	0.072391	265.340	ug/L	0.003
Tl	205	0.609555	24187.380	ug/L	0.006
Pb	208	0.450297	24021.062	ug/L	0.005
Bi	209		611904.634	ug/L	
Se	77	0.887908	740.038	ug/L	0.343
Se	78	-3.353020	6966.183	ug/L	0.514

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		108.774
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 82.888
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.031
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.370
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.10 MS
Sample Date/Time: Thursday, August 22, 2013 20:48:31
Autosampler Position: 40
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.10 MS.77864

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		33477.625	ug/L	
Be	9	861.110645	363263.166	ug/L	25.865
B	10	240.341436	28125.754	ug/L	1.207
B	11	252.401660	155131.405	ug/L	2.225
C	12		1139191.014	ug/L	
Na	23	81122.943646	468640986.136	ug/L	1929.443
Mg	24	26446.045853	104734078.193	ug/L	464.243
Mg	25	26419.544423	15190100.482	ug/L	617.770
Al	27	9479.312335	61219486.777	ug/L	381.020
Si	28		24731037.557	ug/L	
P	31	8447.767476	3062413.773	ug/L	268.595
S	32		79006647.901	ug/L	
Cl	35		9976183.634	ug/L	
K	39	26907.790965	225551517.844	ug/L	884.731
Ca	44	47184.448350	13345654.793	ug/L	1479.570
Sc	45		171618.255	ug/L	
Ti	47	32.796136	23920.000	ug/L	1.543
Ti	48	61.318522	488546.471	ug/L	0.947
V	51	854.435680	9065563.150	ug/L	19.830
ClO	51		9207375.117	ug/L	
Cr	52	807.324528	7274668.232	ug/L	9.143
Cr	53	800.940688	878922.093	ug/L	23.111
Fe	54	21203.024106	14501500.899	ug/L	629.238
Mn	55	3085.550843	43329147.965	ug/L	95.896
Fe	56	20991.010345	242415605.909	ug/L	572.113
Fe	57	21423.878940	5851601.271	ug/L	685.269
Co	59	802.081427	8009620.629	ug/L	30.248
Ni	60	801.625338	1660157.182	ug/L	26.809
Ni	62	774.707946	246873.690	ug/L	27.843
Cu	63	710.099928	3306360.697	ug/L	25.828
Zn	64	961.488808	1664829.977	ug/L	26.431
Cu	65	724.448992	1669082.371	ug/L	17.786
Zn	66	986.569916	1022189.968	ug/L	23.978
Zn	68	970.854737	753732.924	ug/L	18.781
Ge	72		124705.003	ug/L	
As	75	1030.541075	1266694.865	ug/L	54.459
Se	82	977.137431	140302.281	ug/L	61.699
ArCl	77		103220.754	ug/L	
Br	79		230375.466	ug/L	

Br	81		261820.004	ug/L	
Y	89		341110.070	ug/L	
Mo	95	1117.603455	3442988.340	ug/L	34.544
Rh	103		319081.474	ug/L	
Ag	107	58.642945	585425.695	ug/L	1.383
Ag	109	58.512514	560568.771	ug/L	1.977
Cd	111	979.249195	2494157.873	ug/L	33.822
Cd	114	980.246695	5823276.175	ug/L	30.887
In	115		466796.930	ug/L	
Sb	121	1142.433527	8087441.094	ug/L	51.108
Sb	123	1143.564755	6313845.009	ug/L	45.583
Ba	137	1160.615128	5016566.716	ug/L	44.318
Ba	138	1167.178578	32768676.491	ug/L	30.654
Tb	159		705761.244	ug/L	
Ho	165		704582.893	ug/L	
Hg	200	1.142616	2667.752	ug/L	0.004
Hg	202	1.113267	3469.030	ug/L	0.009
Tl	205	1016.577598	34461507.979	ug/L	27.029
Pb	208	992.867414	47140936.813	ug/L	25.289
Bi	209		575390.544	ug/L	
Se	77	862.655751	102657.488	ug/L	16.302
Se	78	828.256233	333487.137	ug/L	13.546

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		101.730
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.855
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	80.152
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	85.167
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.10 MSD
Sample Date/Time: Thursday, August 22, 2013 20:55:02
Autosampler Position: 41
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.10 MSD.77865

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		33030.611	ug/L	
Be	9	829.512531	361184.445	ug/L	14.353
B	10	231.000554	27905.432	ug/L	3.343
B	11	245.699277	155876.187	ug/L	1.880
C	12		1192471.662	ug/L	
Na	23	78483.436253	467936546.651	ug/L	1089.890
Mg	24	25402.364740	103802993.950	ug/L	493.233
Mg	25	25408.029522	15076080.371	ug/L	435.430
Al	27	9161.577706	61081639.546	ug/L	174.480
Si	28		24493716.913	ug/L	
P	31	8248.985954	3087008.623	ug/L	124.656
S	32		77644278.264	ug/L	
Cl	35		10258777.481	ug/L	
K	39	26496.122834	229316835.805	ug/L	120.622
Ca	44	46478.096557	13572153.906	ug/L	223.487
Sc	45		177077.124	ug/L	
Ti	47	31.512399	23731.172	ug/L	0.930
Ti	48	57.174755	469866.218	ug/L	2.066
V	51	833.981293	9133205.686	ug/L	9.854
ClO	51		9223457.577	ug/L	
Cr	52	777.245796	7227290.488	ug/L	6.847
Cr	53	768.415668	870715.788	ug/L	10.596
Fe	54	20123.332152	14211042.760	ug/L	132.342
Mn	55	2986.195779	43287354.642	ug/L	36.305
Fe	56	20515.913229	244591231.091	ug/L	323.944
Fe	57	20890.921926	5889724.326	ug/L	408.080
Co	59	780.866991	8049234.404	ug/L	16.716
Ni	60	783.910442	1675569.540	ug/L	19.165
Ni	62	766.730167	252172.647	ug/L	20.988
Cu	63	705.360021	3389633.855	ug/L	20.277
Zn	64	934.263793	1668955.857	ug/L	43.378
Cu	65	700.086772	1663877.505	ug/L	28.814
Zn	66	940.541052	1005553.706	ug/L	36.797
Zn	68	930.237702	745174.893	ug/L	32.159
Ge	72		124144.849	ug/L	
As	75	1028.387567	1260457.829	ug/L	19.746
Se	82	1002.805731	143658.310	ug/L	4.671
ArCl	77		103164.465	ug/L	
Br	79		230634.056	ug/L	

Br	81		263662.151	ug/L	
Y	89		346215.061	ug/L	
Mo	95	1135.955675	3487639.201	ug/L	1.150
Rh	103		323646.839	ug/L	
Ag	107	51.156048	527573.529	ug/L	0.879
Ag	109	51.225823	507061.037	ug/L	1.194
Cd	111	949.274235	2497881.420	ug/L	18.671
Cd	114	961.982186	5903426.053	ug/L	21.900
In	115		482021.821	ug/L	
Sb	121	1123.729723	8220333.263	ug/L	21.087
Sb	123	1117.470555	6374839.053	ug/L	21.637
Ba	137	1139.975043	5090860.086	ug/L	23.460
Ba	138	1131.306996	32806736.187	ug/L	24.945
Tb	159		710723.422	ug/L	
Ho	165		714564.170	ug/L	
Hg	200	1.120554	2653.414	ug/L	0.017
Hg	202	1.128572	3566.068	ug/L	0.019
Tl	205	1020.148230	35081175.899	ug/L	16.087
Pb	208	982.523432	47328471.629	ug/L	0.337
Bi	209		586148.069	ug/L	
Se	77	857.700969	102071.508	ug/L	2.580
Se	78	836.950251	336900.734	ug/L	7.648

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		104.965
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 83.478
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 82.767
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 86.374
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.11
Sample Date/Time: Thursday, August 22, 2013 21:21:08
Autosampler Position: 45
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.11.77869

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		33572.597	ug/L	
Be	9	0.119110	54.334	ug/L	0.004
B	10	234.345011	28146.513	ug/L	3.314
B	11	241.133399	152080.142	ug/L	0.645
C	12		737014.024	ug/L	
Na	23	66820.848287	396114442.356	ug/L	968.875
Mg	24	15873.273052	64502795.811	ug/L	172.780
Mg	25	15959.688598	9416170.266	ug/L	223.098
Al	27	176.373875	1176831.169	ug/L	3.177
Si	28		24432491.090	ug/L	
P	31	318.796879	129579.892	ug/L	9.437
S	32		74339520.234	ug/L	
Cl	35		8653866.721	ug/L	
K	39	16594.951517	142966315.661	ug/L	74.825
Ca	44	37410.889413	10861083.992	ug/L	489.784
Sc	45		176063.105	ug/L	
Ti	47	5.906752	4528.173	ug/L	0.249
Ti	48	47.730461	390106.690	ug/L	1.078
V	51	0.166385	26799.407	ug/L	0.000
ClO	51		27459.362	ug/L	
Cr	52	0.239775	9821.712	ug/L	0.005
Cr	53	-0.112811	8266.513	ug/L	0.170
Fe	54	13212.304276	9294782.634	ug/L	150.853
Mn	55	2452.810598	35340561.626	ug/L	70.439
Fe	56	13145.341154	156631946.315	ug/L	336.038
Fe	57	13427.076680	3766913.409	ug/L	284.256
Co	59	10.945786	112840.216	ug/L	0.232
Ni	60	30.325710	64484.906	ug/L	0.655
Ni	62	28.657348	9406.292	ug/L	0.513
Cu	63	2.078959	10170.793	ug/L	0.009
Zn	64	32.548497	66352.684	ug/L	0.510
Cu	65	1.416773	3457.359	ug/L	0.009
Zn	66	33.012332	40374.222	ug/L	0.471
Zn	68	35.884050	32429.408	ug/L	0.722
Ge	72		125779.236	ug/L	
As	75	28.376550	35046.131	ug/L	0.027
Se	82	5.511323	830.520	ug/L	0.564
ArCl	77		750.705	ug/L	
Br	79		291005.763	ug/L	

Br	81		327592.904	ug/L	
Y	89		359175.791	ug/L	
Mo	95	38.805645	120964.446	ug/L	1.129
Rh	103		326593.012	ug/L	
Ag	107	0.015253	810.711	ug/L	0.004
Ag	109	0.001412	662.364	ug/L	0.004
Cd	111	0.132124	440.682	ug/L	0.002
Cd	114	0.116330	923.056	ug/L	0.001
In	115		486494.431	ug/L	
Sb	121	0.719765	6042.068	ug/L	0.018
Sb	123	0.701802	4618.112	ug/L	0.010
Ba	137	156.533845	705768.969	ug/L	0.038
Ba	138	151.018773	4421794.711	ug/L	0.546
Tb	159		734499.139	ug/L	
Ho	165		735859.027	ug/L	
Hg	200	0.091413	239.672	ug/L	0.004
Hg	202	0.068829	249.339	ug/L	0.006
Tl	205	1.529832	56364.432	ug/L	0.065
Pb	208	0.790135	40494.631	ug/L	0.007
Bi	209		595251.492	ug/L	
Se	77	1.161330	772.374	ug/L	0.187
Se	78	-3.469882	6920.299	ug/L	0.061

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		104.364
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 84.577
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 83.535
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 88.948
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.12
Sample Date/Time: Thursday, August 22, 2013 21:53:43
Autosampler Position: 46
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.12.77874

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		34826.589	ug/L	
Be	9	0.141148	65.668	ug/L	0.019
B	10	227.547603	28118.740	ug/L	5.262
B	11	239.076959	155175.511	ug/L	5.295
C	12		726255.515	ug/L	
Na	23	66052.759139	402961330.812	ug/L	21.077
Mg	24	15183.869189	63496661.957	ug/L	73.801
Mg	25	15244.798307	9256383.906	ug/L	30.356
Al	27	133.217630	916932.766	ug/L	2.237
Si	28		23742026.761	ug/L	
P	31	356.999744	147966.153	ug/L	1.850
S	32		75515744.317	ug/L	
Cl	35		8735705.621	ug/L	
K	39	16036.612441	142199360.043	ug/L	367.823
Ca	44	36961.078620	11044538.837	ug/L	615.047
Sc	45		181139.176	ug/L	
Ti	47	4.675364	3717.464	ug/L	0.141
Ti	48	45.570632	383244.478	ug/L	1.380
V	51	0.060659	26391.862	ug/L	0.011
ClO	51		26800.075	ug/L	
Cr	52	0.135060	9110.355	ug/L	0.003
Cr	53	-0.223350	8376.278	ug/L	0.182
Fe	54	14797.966748	10706025.707	ug/L	5.902
Mn	55	2823.324379	41872443.284	ug/L	15.596
Fe	56	14919.424374	182641447.369	ug/L	151.023
Fe	57	15239.891280	4398950.773	ug/L	108.343
Co	59	12.363974	131098.655	ug/L	0.006
Ni	60	32.178450	70423.129	ug/L	0.054
Ni	62	29.654173	10017.285	ug/L	0.295
Cu	63	1.553526	7879.159	ug/L	0.002
Zn	64	34.707714	72217.358	ug/L	0.315
Cu	65	0.906997	2317.652	ug/L	0.017
Zn	66	35.280133	44015.083	ug/L	0.133
Zn	68	38.612890	35602.285	ug/L	0.137
Ge	72		130602.280	ug/L	
As	75	29.779446	38205.396	ug/L	0.417
Se	82	5.348236	836.787	ug/L	0.231
ArCl	77		764.373	ug/L	
Br	79		289568.194	ug/L	

Br	81		326341.076	ug/L	
Y	89		369145.900	ug/L	
Mo	95	39.868790	129025.902	ug/L	1.500
Rh	103		335672.482	ug/L	
Ag	107	0.032132	999.398	ug/L	0.006
Ag	109	0.025462	914.389	ug/L	0.004
Cd	111	0.145839	483.018	ug/L	0.007
Cd	114	0.130118	1021.068	ug/L	0.012
In	115		492617.672	ug/L	
Sb	121	0.951157	7850.133	ug/L	0.003
Sb	123	0.947871	6111.590	ug/L	0.019
Ba	137	158.543816	723790.459	ug/L	3.472
Ba	138	156.168002	4629574.267	ug/L	4.593
Tb	159		759283.584	ug/L	
Ho	165		756783.792	ug/L	
Hg	200	0.068149	188.671	ug/L	0.004
Hg	202	0.045446	179.004	ug/L	0.005
Tl	205	1.727517	65201.970	ug/L	0.011
Pb	208	0.636297	33801.611	ug/L	0.018
Bi	209		620481.993	ug/L	
Se	77	0.938646	746.038	ug/L	0.311
Se	78	-2.741571	7206.261	ug/L	0.434

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		107.373
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.820
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.586
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.477
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.13
Sample Date/Time: Thursday, August 22, 2013 22:00:15
Autosampler Position: 47
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.13.77875

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		34124.014	ug/L	
Be	9	0.120342	57.001	ug/L	0.011
B	10	224.299330	27954.942	ug/L	9.749
B	11	235.531808	154178.969	ug/L	8.971
C	12		747203.205	ug/L	
Na	23	65656.536856	403933501.193	ug/L	614.231
Mg	24	15157.765021	63918816.022	ug/L	96.805
Mg	25	15253.337514	9339441.172	ug/L	92.768
Al	27	88.758402	618640.307	ug/L	0.138
Si	28		23245726.535	ug/L	
P	31	411.410784	170148.435	ug/L	5.485
S	32		76629919.881	ug/L	
Cl	35		8975187.516	ug/L	
K	39	15706.406434	140436809.206	ug/L	271.774
Ca	44	35416.605226	10672012.724	ug/L	704.494
Sc	45		182655.685	ug/L	
Ti	47	4.292576	3455.025	ug/L	0.170
Ti	48	44.596525	378356.725	ug/L	0.630
V	51	0.018794	26144.495	ug/L	0.045
ClO	51		26458.728	ug/L	
Cr	52	0.077684	8638.966	ug/L	0.021
Cr	53	-0.257250	8404.968	ug/L	0.007
Fe	54	15719.854741	11467713.039	ug/L	445.712
Mn	55	2970.347933	44432683.115	ug/L	62.257
Fe	56	15828.093883	195280326.995	ug/L	189.950
Fe	57	16218.027708	4720460.431	ug/L	97.538
Co	59	11.331015	121214.494	ug/L	0.045
Ni	60	27.548732	60800.944	ug/L	0.049
Ni	62	25.764177	8780.327	ug/L	0.118
Cu	63	1.459254	7479.487	ug/L	0.043
Zn	64	27.797036	60149.078	ug/L	0.610
Cu	65	0.804514	2085.594	ug/L	0.017
Zn	66	28.090082	36498.190	ug/L	0.480
Zn	68	30.935056	29587.046	ug/L	0.243
Ge	72		130778.002	ug/L	
As	75	29.755317	38223.445	ug/L	0.408
Se	82	5.311996	832.494	ug/L	0.446
ArCl	77		777.374	ug/L	
Br	79		295696.928	ug/L	

Br	81		332732.988	ug/L	
Y	89		365329.600	ug/L	
Mo	95	39.869255	129189.678	ug/L	1.918
Rh	103		336047.992	ug/L	
Ag	107	0.014997	824.712	ug/L	0.001
Ag	109	0.010328	766.707	ug/L	0.003
Cd	111	0.170662	553.689	ug/L	0.008
Cd	114	0.154067	1179.755	ug/L	0.005
In	115		496171.832	ug/L	
Sb	121	0.796246	6739.565	ug/L	0.014
Sb	123	0.822986	5421.236	ug/L	0.043
Ba	137	157.966384	726289.004	ug/L	4.602
Ba	138	153.892958	4594888.644	ug/L	3.152
Tb	159		755341.228	ug/L	
Ho	165		750899.412	ug/L	
Hg	200	0.060236	167.670	ug/L	0.002
Hg	202	0.040493	161.336	ug/L	0.003
Tl	205	1.465829	55237.524	ug/L	0.008
Pb	208	0.711160	37331.784	ug/L	0.017
Bi	209		633578.099	ug/L	
Se	77	1.057035	760.039	ug/L	0.351
Se	78	-2.810829	7179.068	ug/L	0.289

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		108.272
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.938
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.196
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.766
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.14
Sample Date/Time: Thursday, August 22, 2013 22:06:48
Autosampler Position: 48
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.14.77876

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22833.997	ug/L	
Be	9	0.010727	7.333	ug/L	0.004
B	10	12.489123	1535.145	ug/L	0.055
B	11	12.609412	8144.062	ug/L	0.490
C	12		517463.071	ug/L	
Na	23	15621.304828	91337930.911	ug/L	338.025
Mg	24	4106.461305	16457265.791	ug/L	96.542
Mg	25	4160.230903	2420789.721	ug/L	69.756
Al	27	60.467724	402951.474	ug/L	0.653
Si	28		15242164.430	ug/L	
P	31	17.461470	17652.228	ug/L	2.200
S	32		80744006.409	ug/L	
Cl	35		7855883.175	ug/L	
K	39	2577.239072	22257314.338	ug/L	28.509
Ca	44	19708.397158	5644729.909	ug/L	241.341
Sc	45		173566.665	ug/L	
Ti	47	3.977521	3050.542	ug/L	0.006
Ti	48	27.902081	224882.100	ug/L	1.027
V	51	0.280802	27644.581	ug/L	0.003
ClO	51		28044.473	ug/L	
Cr	52	-0.006408	7442.102	ug/L	0.010
Cr	53	-0.652134	7554.218	ug/L	0.299
Fe	54	630.250795	488131.523	ug/L	16.621
Mn	55	35.042241	498929.004	ug/L	0.953
Fe	56	594.850285	9193935.585	ug/L	11.895
Fe	57	661.452321	191673.609	ug/L	21.568
Co	59	0.053232	1195.090	ug/L	0.001
Ni	60	0.901775	1925.223	ug/L	0.040
Ni	62	0.318679	137.002	ug/L	0.035
Cu	63	0.442885	2315.985	ug/L	0.006
Zn	64	-0.669570	7524.594	ug/L	0.062
Cu	65	0.314050	838.047	ug/L	0.003
Zn	66	-1.332259	3991.250	ug/L	0.059
Zn	68	-0.770281	3337.313	ug/L	0.068
Ge	72		135119.701	ug/L	
As	75	7.088489	9239.492	ug/L	0.029
Se	82	0.655080	133.830	ug/L	0.055
ArCl	77		616.360	ug/L	
Br	79		41338.197	ug/L	

Br	81		65708.383	ug/L	
Y	89		381058.557	ug/L	
Mo	95	2.971031	10148.434	ug/L	0.044
Rh	103		360812.756	ug/L	
Ag	107	0.010704	842.381	ug/L	0.008
Ag	109	0.012169	849.382	ug/L	0.004
Cd	111	0.031919	192.337	ug/L	0.008
Cd	114	0.035819	468.017	ug/L	0.001
In	115		536538.033	ug/L	
Sb	121	0.125864	1828.869	ug/L	0.007
Sb	123	0.123162	1418.871	ug/L	0.018
Ba	137	7.870712	39206.766	ug/L	0.174
Ba	138	7.833298	253355.642	ug/L	0.185
Tb	159		788718.919	ug/L	
Ho	165		789430.406	ug/L	
Hg	200	0.093805	263.673	ug/L	0.009
Hg	202	0.066389	259.340	ug/L	0.000
Tl	205	-0.008027	2072.258	ug/L	0.007
Pb	208	0.172078	10557.850	ug/L	0.001
Bi	209		647609.560	ug/L	
Se	77	-0.059194	628.028	ug/L	0.231
Se	78	-2.212158	7414.128	ug/L	0.294

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		102.885
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 90.858
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 92.127
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.423
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.15
Sample Date/Time: Thursday, August 22, 2013 22:13:21
Autosampler Position: 49
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.15.77877

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22938.238	ug/L	
Be	9	0.007793	6.000	ug/L	0.007
B	10	9.964097	1220.428	ug/L	0.317
B	11	10.484760	6735.562	ug/L	0.025
C	12		522177.718	ug/L	
Na	23	15657.682125	90319675.705	ug/L	559.271
Mg	24	4116.363446	16275028.624	ug/L	150.821
Mg	25	4130.469015	2371181.367	ug/L	129.146
Al	27	51.378310	338894.852	ug/L	0.214
Si	28		14899695.090	ug/L	
P	31	20.187466	18407.178	ug/L	3.550
S	32		79616342.036	ug/L	
Cl	35		7601205.727	ug/L	
K	39	2535.366463	21609200.663	ug/L	81.454
Ca	44	19844.261390	5607167.271	ug/L	422.972
Sc	45		171229.581	ug/L	
Ti	47	3.442292	2622.071	ug/L	0.133
Ti	48	27.428787	218152.038	ug/L	0.479
V	51	0.278041	27248.107	ug/L	0.121
ClO	51		27697.792	ug/L	
Cr	52	-0.012292	7289.077	ug/L	0.015
Cr	53	-0.730288	7366.726	ug/L	0.205
Fe	54	365.813687	301605.702	ug/L	6.683
Mn	55	39.293890	551737.578	ug/L	0.109
Fe	56	343.817369	6202297.832	ug/L	1.906
Fe	57	415.899398	122197.953	ug/L	0.469
Co	59	0.057396	1220.094	ug/L	0.012
Ni	60	0.913165	1922.222	ug/L	0.019
Ni	62	0.290673	126.335	ug/L	0.019
Cu	63	0.520784	2646.745	ug/L	0.003
Zn	64	0.059945	8677.747	ug/L	0.077
Cu	65	0.406792	1040.070	ug/L	0.002
Zn	66	-0.583867	4707.599	ug/L	0.096
Zn	68	-0.080334	3824.176	ug/L	0.064
Ge	72		131734.269	ug/L	
As	75	7.431571	9454.051	ug/L	0.072
Se	82	0.585483	119.819	ug/L	0.113
ArCl	77		620.027	ug/L	
Br	79		36652.800	ug/L	

Br	81		59732.076	ug/L	
Y	89		373766.682	ug/L	
Mo	95	2.742894	9149.698	ug/L	0.121
Rh	103		351445.870	ug/L	
Ag	107	0.000219	706.034	ug/L	0.001
Ag	109	0.000022	699.367	ug/L	0.003
Cd	111	0.049721	239.006	ug/L	0.001
Cd	114	0.048346	541.022	ug/L	0.000
In	115		524349.326	ug/L	
Sb	121	0.103647	1610.492	ug/L	0.004
Sb	123	0.101061	1249.844	ug/L	0.003
Ba	137	8.525001	41498.931	ug/L	0.060
Ba	138	8.605036	271979.233	ug/L	0.084
Tb	159		775287.674	ug/L	
Ho	165		781231.589	ug/L	
Hg	200	0.098686	273.340	ug/L	0.007
Hg	202	0.069606	267.673	ug/L	0.000
Tl	205	-0.010512	1959.566	ug/L	0.006
Pb	208	0.199311	11881.861	ug/L	0.004
Bi	209		642672.457	ug/L	
Se	77	-0.169125	615.027	ug/L	0.116
Se	78	-2.927666	7133.193	ug/L	0.172

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.499
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 88.581
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 90.035
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 94.432
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.16
Sample Date/Time: Thursday, August 22, 2013 22:19:53
Autosampler Position: 50
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.16.77878

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22854.026	ug/L	
Be	9	0.011132	7.333	ug/L	0.002
B	10	9.757246	1187.423	ug/L	0.053
B	11	10.097185	6451.688	ug/L	0.256
C	12		517354.618	ug/L	
Na	23	15736.996953	90115585.760	ug/L	472.469
Mg	24	4153.136828	16300203.958	ug/L	107.139
Mg	25	4196.399272	2391371.252	ug/L	90.371
Al	27	46.274126	303767.724	ug/L	0.954
Si	28		14834476.280	ug/L	
P	31	17.205854	17208.050	ug/L	3.460
S	32		79449080.813	ug/L	
Cl	35		7464185.266	ug/L	
K	39	2547.555661	21551950.320	ug/L	56.729
Ca	44	20100.446253	5637945.270	ug/L	357.538
Sc	45		169970.380	ug/L	
Ti	47	2.704565	2070.590	ug/L	0.244
Ti	48	27.715325	218791.219	ug/L	0.056
V	51	0.245631	26703.769	ug/L	0.012
ClO	51		26879.620	ug/L	
Cr	52	-0.034122	7039.354	ug/L	0.015
Cr	53	-0.781450	7256.969	ug/L	0.056
Fe	54	180.978225	174565.450	ug/L	4.685
Mn	55	34.378013	479309.341	ug/L	0.381
Fe	56	165.891233	4139935.419	ug/L	3.431
Fe	57	236.501993	72807.648	ug/L	1.943
Co	59	0.042008	1058.739	ug/L	0.008
Ni	60	0.799363	1674.838	ug/L	0.013
Ni	62	0.212364	100.668	ug/L	0.008
Cu	63	0.426075	2190.286	ug/L	0.000
Zn	64	0.880479	10013.868	ug/L	0.020
Cu	65	0.329689	856.049	ug/L	0.023
Zn	66	0.224086	5497.717	ug/L	0.011
Zn	68	0.753917	4434.459	ug/L	0.035
Ge	72		127603.999	ug/L	
As	75	7.576876	9341.053	ug/L	0.091
Se	82	0.602539	118.535	ug/L	0.035
ArCl	77		639.029	ug/L	
Br	79		34806.927	ug/L	

Br	81		57061.504	ug/L	
Y	89		369474.660	ug/L	
Mo	95	2.880805	9298.181	ug/L	0.058
Rh	103		344776.267	ug/L	
Ag	107	0.007297	789.375	ug/L	0.001
Ag	109	-0.010964	584.358	ug/L	0.003
Cd	111	0.046867	232.005	ug/L	0.006
Cd	114	0.040927	494.018	ug/L	0.003
In	115		527089.855	ug/L	
Sb	121	0.092277	1528.144	ug/L	0.004
Sb	123	0.092814	1204.838	ug/L	0.002
Ba	137	8.482853	41508.630	ug/L	0.026
Ba	138	8.393234	266672.802	ug/L	0.090
Tb	159		768075.059	ug/L	
Ho	165		761977.749	ug/L	
Hg	200	0.097924	264.673	ug/L	0.000
Hg	202	0.071190	266.340	ug/L	0.001
Tl	205	-0.009390	1949.230	ug/L	0.008
Pb	208	0.160912	9615.452	ug/L	0.003
Bi	209		643387.792	ug/L	
Se	77	-0.366436	591.692	ug/L	0.187
Se	78	-3.322250	6978.265	ug/L	0.333

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		100.753
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 85.804
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 90.505
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 92.105
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.17
Sample Date/Time: Thursday, August 22, 2013 22:26:25
Autosampler Position: 51
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.17.77879

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22044.108	ug/L	
Be	9	0.011915	7.333	ug/L	0.006
B	10	78.290327	8796.008	ug/L	4.304
B	11	84.639372	49952.400	ug/L	3.689
C	12		529134.027	ug/L	
Na	23	114310.858580	631671544.926	ug/L	5281.449
Mg	24	1679.422293	6361883.745	ug/L	83.446
Mg	25	1672.671794	919707.619	ug/L	101.349
Al	27	5.156413	39101.145	ug/L	0.405
Si	28		20848400.826	ug/L	
P	31	86.729710	40614.581	ug/L	6.571
S	32		79068696.420	ug/L	
Cl	35		8091761.554	ug/L	
K	39	4164.306539	33737364.704	ug/L	215.730
Ca	44	4104.749399	1114531.204	ug/L	240.923
Sc	45		164333.969	ug/L	
Ti	47	2.259838	1685.840	ug/L	0.341
Ti	48	6.574107	50171.690	ug/L	0.142
V	51	-0.071711	22567.544	ug/L	0.096
ClO	51		23166.727	ug/L	
Cr	52	-0.138398	5896.840	ug/L	0.038
Cr	53	-0.424175	7379.403	ug/L	0.247
Fe	54	129.031705	134582.665	ug/L	11.548
Mn	55	23.143683	311539.975	ug/L	1.489
Fe	56	114.737776	3435092.885	ug/L	17.864
Fe	57	135.834738	43973.823	ug/L	13.188
Co	59	-0.027894	353.010	ug/L	0.007
Ni	60	0.310719	648.030	ug/L	0.021
Ni	62	1.140330	379.678	ug/L	0.095
Cu	63	1.302557	6018.052	ug/L	0.068
Zn	64	-1.165106	6297.376	ug/L	0.153
Cu	65	0.230329	607.360	ug/L	0.018
Zn	66	-2.376249	2742.774	ug/L	0.147
Zn	68	-1.793014	2395.673	ug/L	0.286
Ge	72		120686.415	ug/L	
As	75	0.710804	650.092	ug/L	0.006
Se	82	1.484467	234.709	ug/L	0.056
ArCl	77		646.029	ug/L	
Br	79		85084.858	ug/L	

Br	81		109911.984	ug/L	
Y	89		343110.147	ug/L	
Mo	95	1.623561	5035.445	ug/L	0.068
Rh	103		313457.701	ug/L	
Ag	107	-0.007509	563.023	ug/L	0.003
Ag	109	-0.014235	496.352	ug/L	0.003
Cd	111	-0.005864	73.001	ug/L	0.004
Cd	114	-0.004364	172.337	ug/L	0.001
In	115		477389.549	ug/L	
Sb	121	0.020901	866.383	ug/L	0.002
Sb	123	0.018756	672.232	ug/L	0.003
Ba	137	7.168447	31728.589	ug/L	0.397
Ba	138	7.187684	206569.945	ug/L	0.384
Tb	159		712691.789	ug/L	
Ho	165		721431.156	ug/L	
Hg	200	0.138580	346.677	ug/L	0.010
Hg	202	0.095242	328.009	ug/L	0.006
Tl	205	-0.017517	1560.817	ug/L	0.008
Pb	208	0.084536	5388.355	ug/L	0.003
Bi	209		531120.344	ug/L	
Se	77	0.005637	635.695	ug/L	0.283
Se	78	-3.398647	6948.268	ug/L	0.089

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		97.412
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	81.152
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	81.971
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	87.204
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123529.18
Sample Date/Time: Thursday, August 22, 2013 22:32:56
Autosampler Position: 52
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.18.77880

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23288.490	ug/L	
Be	9	0.021380	12.333	ug/L	0.002
B	10	73.093190	9038.253	ug/L	2.208
B	11	77.977279	50625.114	ug/L	0.632
C	12		527257.482	ug/L	
Na	23	104000.075087	631948053.883	ug/L	1219.620
Mg	24	1648.722315	6868651.849	ug/L	20.398
Mg	25	1627.013430	984186.177	ug/L	14.347
Al	27	33.633689	236540.257	ug/L	0.849
Si	28		21340587.064	ug/L	
P	31	82.938372	43240.338	ug/L	3.192
S	32		82144144.709	ug/L	
Cl	35		8272849.115	ug/L	
K	39	3752.232389	33473995.039	ug/L	4.005
Ca	44	4069.946496	1215572.509	ug/L	12.201
Sc	45		180406.023	ug/L	
Ti	47	3.654616	2924.500	ug/L	0.037
Ti	48	7.846542	65781.909	ug/L	0.050
V	51	-0.181326	23593.829	ug/L	0.034
ClO	51		24697.454	ug/L	
Cr	52	-0.117262	6686.585	ug/L	0.013
Cr	53	-0.665698	7836.124	ug/L	0.181
Fe	54	286.598114	260981.420	ug/L	2.260
Mn	55	27.318339	404455.602	ug/L	0.322
Fe	56	255.873973	5476987.353	ug/L	4.252
Fe	57	297.769035	94855.101	ug/L	1.243
Co	59	-0.014418	531.354	ug/L	0.002
Ni	60	0.417125	944.725	ug/L	0.001
Ni	62	1.196596	436.682	ug/L	0.024
Cu	63	1.319274	6699.869	ug/L	0.002
Zn	64	-1.778559	5811.576	ug/L	0.031
Cu	65	0.381399	1034.403	ug/L	0.005
Zn	66	-2.866608	2485.365	ug/L	0.061
Zn	68	-2.328409	2203.957	ug/L	0.155
Ge	72		127847.609	ug/L	
As	75	0.722898	702.570	ug/L	0.078
Se	82	1.534237	256.163	ug/L	0.029
ArCl	77		665.698	ug/L	
Br	79		88587.993	ug/L	

Br	81		113955.931	ug/L	
Y	89		366875.978	ug/L	
Mo	95	1.418250	4692.592	ug/L	0.037
Rh	103		333386.883	ug/L	
Ag	107	-0.014501	523.354	ug/L	0.002
Ag	109	-0.017724	492.018	ug/L	0.001
Cd	111	0.011136	124.335	ug/L	0.003
Cd	114	0.013663	299.341	ug/L	0.003
In	115		507223.522	ug/L	
Sb	121	0.005748	804.377	ug/L	0.004
Sb	123	0.011539	671.486	ug/L	0.004
Ba	137	7.495727	35303.437	ug/L	0.094
Ba	138	7.522447	230042.954	ug/L	0.079
Tb	159		747603.581	ug/L	
Ho	165		750010.964	ug/L	
Hg	200	0.113649	299.341	ug/L	0.000
Hg	202	0.079568	289.674	ug/L	0.005
Tl	205	-0.019696	1548.481	ug/L	0.004
Pb	208	0.169552	9902.556	ug/L	0.000
Bi	209		602941.613	ug/L	
Se	77	0.250868	664.698	ug/L	0.048
Se	78	-3.156163	7043.477	ug/L	0.425

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		106.939
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 85.968
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 87.094
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.658
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.19
Sample Date/Time: Thursday, August 22, 2013 22:39:28
Autosampler Position: 53
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.19.77881

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23808.481	ug/L	
Be	9	0.035904	19.334	ug/L	0.010
B	10	78.615465	9984.256	ug/L	3.580
B	11	83.568285	55740.344	ug/L	4.674
C	12		557061.514	ug/L	
Na	23	104441.543348	652087122.910	ug/L	1893.199
Mg	24	2321.003181	9934655.681	ug/L	43.045
Mg	25	2301.021787	1430080.347	ug/L	37.056
Al	27	61.076499	434637.690	ug/L	1.538
Si	28		22511097.334	ug/L	
P	31	81.262349	43762.791	ug/L	0.195
S	32		85937197.599	ug/L	
Cl	35		8490926.990	ug/L	
K	39	3857.952249	35352312.762	ug/L	39.928
Ca	44	5803.342588	1778819.228	ug/L	57.591
Sc	45		185360.191	ug/L	
Ti	47	5.083443	4125.644	ug/L	0.061
Ti	48	11.085904	95473.801	ug/L	0.094
V	51	-0.076285	25436.791	ug/L	0.033
ClO	51		26053.875	ug/L	
Cr	52	0.144718	9416.231	ug/L	0.009
Cr	53	-0.313399	8465.027	ug/L	0.167
Fe	54	670.462930	550850.903	ug/L	0.925
Mn	55	44.998745	683856.798	ug/L	0.016
Fe	56	624.579455	10186248.112	ug/L	9.293
Fe	57	670.217061	207236.052	ug/L	3.971
Co	59	0.015064	864.050	ug/L	0.004
Ni	60	3.391269	7627.942	ug/L	0.005
Ni	62	3.848138	1362.449	ug/L	0.190
Cu	63	1.650121	8549.104	ug/L	0.008
Zn	64	-0.145756	9010.796	ug/L	0.030
Cu	65	0.699503	1854.875	ug/L	0.012
Zn	66	-1.339945	4253.704	ug/L	0.022
Zn	68	-0.610335	3697.456	ug/L	0.034
Ge	72		128193.832	ug/L	
As	75	1.217328	1331.613	ug/L	0.003
Se	82	1.827802	300.415	ug/L	0.045
ArCl	77		699.367	ug/L	
Br	79		106728.720	ug/L	

Br	81		133343.118	ug/L	
Y	89		373284.372	ug/L	
Mo	95	1.433966	4754.959	ug/L	0.029
Rh	103		335865.149	ug/L	
Ag	107	-0.017843	489.018	ug/L	0.000
Ag	109	-0.022732	441.682	ug/L	0.001
Cd	111	0.044278	217.005	ug/L	0.004
Cd	114	0.055432	571.357	ug/L	0.001
In	115		509217.506	ug/L	
Sb	121	0.045692	1116.413	ug/L	0.006
Sb	123	0.036803	826.501	ug/L	0.006
Ba	137	10.216899	48282.693	ug/L	0.054
Ba	138	10.329036	316942.356	ug/L	0.028
Tb	159		753183.452	ug/L	
Ho	165		759761.419	ug/L	
Hg	200	0.109917	294.008	ug/L	0.005
Hg	202	0.072998	271.673	ug/L	0.002
Tl	205	-0.021364	1506.808	ug/L	0.006
Pb	208	1.015081	53330.540	ug/L	0.012
Bi	209		605080.363	ug/L	
Se	77	0.222680	661.364	ug/L	0.000
Se	78	-2.861320	7159.243	ug/L	0.298

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		109.875
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 86.200
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 87.436
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.837
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.20
Sample Date/Time: Thursday, August 22, 2013 22:46:00
Autosampler Position: 54
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.20.77882

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26978.646	ug/L	
Be	9	0.012285	8.333	ug/L	0.011
B	10	150.683843	18492.320	ug/L	1.775
B	11	160.635638	103543.522	ug/L	2.593
C	12		970456.478	ug/L	
Na	23	S	S	ug/L	S
Mg	24	31364.490097	130136026.396	ug/L	424.753
Mg	25	31400.371981	18917921.534	ug/L	517.800
Al	27	15.646845	113863.794	ug/L	0.218
Si	28		20210611.677	ug/L	
P	31	88.255897	45072.648	ug/L	0.416
S	32		77010304.275	ug/L	
Cl	35		11920563.020	ug/L	
K	39	11249.008277	99087771.758	ug/L	183.812
Ca	44	28719.073350	8514722.131	ug/L	354.178
Sc	45		179703.297	ug/L	
Ti	47	2.625119	2129.938	ug/L	0.011
Ti	48	37.071197	309389.915	ug/L	0.055
V	51	0.618235	32364.188	ug/L	0.012
ClO	51		32931.548	ug/L	
Cr	52	0.031121	8056.514	ug/L	0.017
Cr	53	1.619172	10403.720	ug/L	0.200
Fe	54	3602.026091	2627283.970	ug/L	9.569
Mn	55	1191.676089	17533345.867	ug/L	8.966
Fe	56	3557.697135	45028254.526	ug/L	16.254
Fe	57	3645.509219	1051106.375	ug/L	11.506
Co	59	5.016604	53174.974	ug/L	0.003
Ni	60	25.597069	55584.018	ug/L	0.006
Ni	62	24.630265	8256.163	ug/L	0.776
Cu	63	2.061630	10294.262	ug/L	0.023
Zn	64	0.443243	9796.547	ug/L	0.082
Cu	65	0.623843	1615.493	ug/L	0.002
Zn	66	-0.228319	5322.611	ug/L	0.108
Zn	68	3.728233	7093.504	ug/L	0.111
Ge	72		121037.779	ug/L	
As	75	10.508179	12364.035	ug/L	0.072
Se	82	18.132847	2560.497	ug/L	0.185
ArCl	77		957.727	ug/L	
Br	79		911537.499	ug/L	

Br	81		987207.670	ug/L	
Y	89		364512.203	ug/L	
Mo	95	4.931419	14958.790	ug/L	0.174
Rh	103		317806.597	ug/L	
Ag	107	-0.022033	418.014	ug/L	0.001
Ag	109	-0.026958	374.678	ug/L	0.000
Cd	111	0.043192	201.671	ug/L	0.001
Cd	114	0.057638	552.022	ug/L	0.001
In	115		479995.529	ug/L	
Sb	121	0.126895	1644.165	ug/L	0.014
Sb	123	0.124835	1279.303	ug/L	0.009
Ba	137	179.541965	798628.528	ug/L	2.953
Ba	138	174.428077	5038809.392	ug/L	1.166
Tb	159		726308.964	ug/L	
Ho	165		737426.327	ug/L	
Hg	200	0.016441	58.334	ug/L	0.000
Hg	202	0.008751	55.667	ug/L	0.000
Tl	205	-0.007497	1955.897	ug/L	0.005
Pb	208	0.732706	37731.695	ug/L	0.004
Bi	209		608510.540	ug/L	
Se	77	2.249389	901.054	ug/L	0.522
Se	78	-3.006427	7102.269	ug/L	0.157

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		106.522
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 81.389
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 82.419
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 89.137
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.20 MS
Sample Date/Time: Thursday, August 22, 2013 22:52:31
Autosampler Position: 55
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.20 MS.77883

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24606.620	ug/L	
Be	9	894.393488	372704.180	ug/L	22.543
B	10	151.412435	17521.386	ug/L	1.016
B	11	160.888528	97794.535	ug/L	0.218
C	12		1498746.199	ug/L	
Na	23	S	S	ug/L	S
Mg	24	41795.284359	163509650.524	ug/L	383.494
Mg	25	41535.478192	23593424.111	ug/L	417.287
Al	27	9749.253160	62225261.016	ug/L	114.400
Si	28		19522365.674	ug/L	
P	31	8586.041878	3075400.187	ug/L	92.180
S	32		81475099.818	ug/L	
Cl	35		12869807.430	ug/L	
K	39	20964.799594	173728471.400	ug/L	333.402
Ca	44	38887.847282	10867509.180	ug/L	726.390
Sc	45		169498.721	ug/L	
Ti	47	30.892548	22274.148	ug/L	0.659
Ti	48	47.645079	374741.565	ug/L	2.021
V	51	878.924133	9211602.925	ug/L	12.580
ClO	51		9464290.895	ug/L	
Cr	52	835.255175	7431038.459	ug/L	22.636
Cr	53	829.211726	898542.312	ug/L	20.975
Fe	54	13089.578375	8862461.121	ug/L	385.046
Mn	55	2073.387606	28761418.221	ug/L	53.479
Fe	56	13101.163800	150268405.991	ug/L	439.274
Fe	57	13486.119626	3641876.065	ug/L	374.804
Co	59	820.436011	8092675.043	ug/L	29.502
Ni	60	818.466636	1674443.063	ug/L	21.960
Ni	62	804.640678	253325.286	ug/L	19.077
Cu	63	733.755000	3375894.143	ug/L	12.053
Zn	64	964.139451	1649441.164	ug/L	9.641
Cu	65	745.067511	1696031.422	ug/L	5.825
Zn	66	982.449965	1005801.686	ug/L	5.029
Zn	68	972.783912	746002.125	ug/L	13.850
Ge	72		123898.463	ug/L	
As	75	1026.806883	1255137.820	ug/L	36.014
Se	82	1018.144125	145386.091	ug/L	48.605
ArCl	77		105133.628	ug/L	
Br	79		869707.906	ug/L	

Br	81		932212.072	ug/L	
Y	89		347832.854	ug/L	
Mo	95	1110.858066	3401455.392	ug/L	28.999
Rh	103		314420.656	ug/L	
Ag	107	576.801459	5693267.310	ug/L	24.863
Ag	109	584.192429	5537116.257	ug/L	11.416
Cd	111	979.323701	2470068.926	ug/L	23.531
Cd	114	974.928386	5733886.580	ug/L	33.024
In	115		462126.347	ug/L	
Sb	121	1118.956711	7849003.463	ug/L	2.802
Sb	123	1120.060226	6127113.972	ug/L	2.138
Ba	137	1204.072681	5153546.627	ug/L	36.326
Ba	138	1205.001846	33494154.302	ug/L	31.432
Tb	159		706303.625	ug/L	
Ho	165		695537.601	ug/L	
Hg	200	1.047675	2414.345	ug/L	0.037
Hg	202	1.042053	3204.930	ug/L	0.037
Tl	205	996.343635	33329851.397	ug/L	33.884
Pb	208	988.291862	46296757.505	ug/L	40.151
Bi	209		560353.513	ug/L	
Se	77	872.416736	103811.876	ug/L	19.642
Se	78	838.188971	337387.102	ug/L	15.235

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		100.473
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 83.312
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 79.350
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 84.074
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.20 MSD
Sample Date/Time: Thursday, August 22, 2013 23:25:07
Autosampler Position: 56
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.20 MSD.77888

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24864.627	ug/L	
Be	9	883.653591	369727.857	ug/L	17.789
B	10	146.777250	17051.505	ug/L	7.106
B	11	157.135003	95876.136	ug/L	8.493
C	12		1443892.215	ug/L	
Na	23	S	S	ug/L	S
Mg	24	41126.727045	161490346.914	ug/L	249.709
Mg	25	41059.735731	23410246.113	ug/L	363.885
Al	27	9550.062328	61183748.606	ug/L	91.126
Si	28		19041392.070	ug/L	
P	31	8414.812470	3025458.862	ug/L	16.773
S	32		77458132.710	ug/L	
Cl	35		12652511.040	ug/L	
K	39	20704.793958	172237972.745	ug/L	144.179
Ca	44	38463.410410	10790586.649	ug/L	40.207
Sc	45		170092.523	ug/L	
Ti	47	28.894581	20923.930	ug/L	0.193
Ti	48	48.521360	383312.176	ug/L	0.852
V	51	870.689955	9160169.834	ug/L	3.004
ClO	51		9314597.776	ug/L	
Cr	52	818.352650	7310106.925	ug/L	2.470
Cr	53	807.510178	878724.417	ug/L	2.597
Fe	54	12886.955173	8761541.860	ug/L	48.498
Mn	55	2035.156633	28344546.771	ug/L	4.860
Fe	56	12858.149980	148141781.376	ug/L	157.830
Fe	57	13189.355260	3576402.725	ug/L	55.780
Co	59	806.595101	7989845.024	ug/L	5.421
Ni	60	815.221946	1674521.571	ug/L	0.663
Ni	62	794.728258	251196.730	ug/L	1.074
Cu	63	732.855012	3384757.225	ug/L	6.248
Zn	64	965.322779	1657605.484	ug/L	6.865
Cu	65	741.062361	1693124.123	ug/L	4.933
Zn	66	973.333120	1000128.089	ug/L	5.563
Zn	68	962.865863	741228.263	ug/L	0.204
Ge	72		121887.695	ug/L	
As	75	1037.231117	1248478.574	ug/L	3.076
Se	82	1032.051758	145163.787	ug/L	7.401
ArCl	77		104468.220	ug/L	
Br	79		847240.864	ug/L	

Br	81		912665.346	ug/L	
Y	89		347976.730	ug/L	
Mo	95	1117.010063	3367516.674	ug/L	30.754
Rh	103		312813.387	ug/L	
Ag	107	585.794537	5829038.907	ug/L	12.078
Ag	109	585.530322	5592907.759	ug/L	27.526
Cd	111	979.271325	2489004.964	ug/L	4.167
Cd	114	968.131800	5738895.194	ug/L	2.131
In	115		465478.256	ug/L	
Sb	121	1114.918222	7878422.250	ug/L	29.816
Sb	123	1112.265831	6129286.192	ug/L	26.775
Ba	137	1186.034655	5115995.123	ug/L	4.489
Ba	138	1187.209763	33255150.434	ug/L	0.789
Tb	159		713738.212	ug/L	
Ho	165		711028.774	ug/L	
Hg	200	1.044453	2460.691	ug/L	0.046
Hg	202	1.026831	3230.940	ug/L	0.009
Tl	205	989.070546	33831801.872	ug/L	29.602
Pb	208	967.743165	46363138.422	ug/L	27.757
Bi	209		566708.079	ug/L	
Se	77	873.730044	103967.195	ug/L	9.882
Se	78	839.722057	337989.049	ug/L	10.406

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		100.825
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 81.960
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 79.926
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 85.946
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.21
Sample Date/Time: Thursday, August 22, 2013 23:51:15
Autosampler Position: 60
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.21.77892

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25178.843	ug/L	
Be	9	0.032678	17.000	ug/L	0.004
B	10	151.383688	18245.831	ug/L	3.295
B	11	161.061247	101964.219	ug/L	4.433
C	12		1011468.186	ug/L	
Na	23	S	S	ug/L	S
Mg	24	32631.948006	132926933.825	ug/L	36.888
Mg	25	32623.160078	19296368.860	ug/L	47.046
Al	27	109.280654	733994.162	ug/L	0.369
Si	28		21600574.976	ug/L	
P	31	154.692180	68977.964	ug/L	4.779
S	32		76597546.741	ug/L	
Cl	35		12145283.522	ug/L	
K	39	11556.732889	99935764.197	ug/L	53.056
Ca	44	31513.315717	9172517.609	ug/L	35.967
Sc	45		176460.873	ug/L	
Ti	47	6.961195	5329.950	ug/L	0.057
Ti	48	42.276631	346339.558	ug/L	1.063
V	51	1.052924	36502.509	ug/L	0.049
ClO	51		37600.657	ug/L	
Cr	52	0.219806	9656.499	ug/L	0.025
Cr	53	2.203188	10874.281	ug/L	0.135
Fe	54	6434.835885	4565436.052	ug/L	49.979
Mn	55	1284.169375	18551838.783	ug/L	14.868
Fe	56	6390.416206	77541764.196	ug/L	96.165
Fe	57	6391.092449	1802169.059	ug/L	106.987
Co	59	13.950932	143966.431	ug/L	0.355
Ni	60	42.474978	90518.329	ug/L	0.905
Ni	62	40.534255	13322.890	ug/L	0.408
Cu	63	2.875675	14005.921	ug/L	0.059
Zn	64	2.805219	13803.577	ug/L	0.155
Cu	65	1.356371	3322.641	ug/L	0.006
Zn	66	1.963772	7551.878	ug/L	0.035
Zn	68	6.594384	9243.124	ug/L	0.051
Ge	72		121858.696	ug/L	
As	75	13.359446	15875.705	ug/L	0.162
Se	82	18.346867	2607.185	ug/L	0.282
ArCl	77		992.731	ug/L	
Br	79		925614.580	ug/L	

Br	81		996930.976	ug/L	
Y	89		366306.221	ug/L	
Mo	95	5.275201	16091.063	ug/L	0.054
Rh	103		323364.341	ug/L	
Ag	107	0.111424	1755.520	ug/L	0.001
Ag	109	0.117592	1765.856	ug/L	0.007
Cd	111	0.085846	308.008	ug/L	0.004
Cd	114	0.101493	805.710	ug/L	0.002
In	115		471528.822	ug/L	
Sb	121	0.513443	4381.767	ug/L	0.009
Sb	123	0.503899	3371.975	ug/L	0.006
Ba	137	202.634942	885457.644	ug/L	1.256
Ba	138	199.938153	5673338.042	ug/L	1.457
Tb	159		738715.674	ug/L	
Ho	165		738839.271	ug/L	
Hg	200	0.020332	68.001	ug/L	0.004
Hg	202	0.011981	66.334	ug/L	0.003
Tl	205	0.158967	7876.823	ug/L	0.008
Pb	208	0.825286	42408.963	ug/L	0.011
Bi	209		580196.862	ug/L	
Se	77	3.044300	995.064	ug/L	0.179
Se	78	-3.126146	7055.263	ug/L	0.332

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		104.600
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 81.941
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 80.965
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 89.308
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.22
Sample Date/Time: Thursday, August 22, 2013 23:57:48
Autosampler Position: 61
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.22.77893

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26719.218	ug/L	
Be	9	0.019782	12.000	ug/L	0.002
B	10	143.684812	18273.537	ug/L	2.988
B	11	153.019501	102204.384	ug/L	1.203
C	12		967095.261	ug/L	
Na	23	S	S	ug/L	S
Mg	24	30257.563724	130068012.686	ug/L	63.067
Mg	25	30395.090743	18972577.359	ug/L	515.902
Al	27	65.875420	470202.984	ug/L	0.058
Si	28		20691504.614	ug/L	
P	31	130.393984	63235.519	ug/L	2.269
S	32		81399562.492	ug/L	
Cl	35		12099740.283	ug/L	
K	39	10763.446200	98251356.008	ug/L	235.117
Ca	44	28840.418865	8859525.581	ug/L	546.253
Sc	45		186210.469	ug/L	
Ti	47	4.951205	4040.272	ug/L	0.095
Ti	48	36.690783	317353.246	ug/L	1.403
V	51	0.876006	36498.521	ug/L	0.077
ClO	51		37547.843	ug/L	
Cr	52	0.097309	8997.346	ug/L	0.011
Cr	53	1.862224	11070.514	ug/L	0.050
Fe	54	5492.966137	4121400.624	ug/L	12.118
Mn	55	1189.370548	18135361.140	ug/L	10.007
Fe	56	5452.580743	70198212.529	ug/L	56.547
Fe	57	5457.493130	1625823.675	ug/L	61.943
Co	59	9.050930	98850.623	ug/L	0.126
Ni	60	32.798649	73792.379	ug/L	0.222
Ni	62	31.057526	10783.169	ug/L	0.737
Cu	63	2.458582	12675.625	ug/L	0.012
Zn	64	1.871787	12824.408	ug/L	0.063
Cu	65	0.959925	2514.373	ug/L	0.012
Zn	66	0.991158	6881.005	ug/L	0.099
Zn	68	5.231235	8611.163	ug/L	0.150
Ge	72		126158.685	ug/L	
As	75	12.241297	15047.288	ug/L	0.176
Se	82	18.506945	2723.578	ug/L	1.046
ArCl	77		975.729	ug/L	
Br	79		949133.225	ug/L	

Br	81		1022454.418	ug/L	
Y	89		380198.890	ug/L	
Mo	95	4.761269	15059.960	ug/L	0.202
Rh	103		337227.626	ug/L	
Ag	107	0.039394	1108.745	ug/L	0.005
Ag	109	0.038809	1081.409	ug/L	0.005
Cd	111	0.049931	232.005	ug/L	0.004
Cd	114	0.067689	649.030	ug/L	0.003
In	115		507788.479	ug/L	
Sb	121	0.333756	3333.646	ug/L	0.024
Sb	123	0.333295	2606.377	ug/L	0.023
Ba	137	186.964805	879872.244	ug/L	2.065
Ba	138	181.908688	5558994.105	ug/L	0.368
Tb	159		784589.026	ug/L	
Ho	165		792321.332	ug/L	
Hg	200	0.015403	60.001	ug/L	0.003
Hg	202	0.011298	68.668	ug/L	0.000
Tl	205	0.092073	5899.306	ug/L	0.002
Pb	208	0.579340	32344.211	ug/L	0.020
Bi	209		621152.420	ug/L	
Se	77	2.962554	985.397	ug/L	0.367
Se	78	-3.555815	6886.558	ug/L	0.773

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		110.379
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
> Ge 84.832
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
> In 87.191
Sb
Sb
Ba
Ba
Tb
> Ho 95.773
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123529.23
Sample Date/Time: Friday, August 23, 2013 00:04:21
Autosampler Position: 62
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.23.77894

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22517.218	ug/L	
Be	9	0.012514	8.000	ug/L	0.002
B	10	10.788285	1319.109	ug/L	0.012
B	11	11.466513	7352.713	ug/L	0.129
C	12		518145.085	ug/L	
Na	23	15685.408935	90666409.159	ug/L	175.600
Mg	24	4148.415733	16436268.024	ug/L	71.840
Mg	25	4203.559592	2418228.318	ug/L	63.300
Al	27	45.673917	302796.500	ug/L	1.060
Si	28		15294234.612	ug/L	
P	31	15.131062	16616.845	ug/L	1.146
S	32		80242222.741	ug/L	
Cl	35		7811555.579	ug/L	
K	39	2572.676908	21967173.580	ug/L	39.880
Ca	44	20023.478251	5669981.347	ug/L	328.673
Sc	45		171593.797	ug/L	
Ti	47	2.993606	2304.989	ug/L	0.677
Ti	48	27.789213	221481.900	ug/L	0.160
V	51	0.284014	27363.395	ug/L	0.011
ClO	51		27746.555	ug/L	
Cr	52	-0.032705	7120.830	ug/L	0.009
Cr	53	-0.472542	7661.304	ug/L	0.070
Fe	54	187.724595	180831.265	ug/L	4.340
Mn	55	34.586807	486819.836	ug/L	0.362
Fe	56	173.845283	4270348.387	ug/L	1.353
Fe	57	245.577093	75983.829	ug/L	0.406
Co	59	0.036620	1015.400	ug/L	0.002
Ni	60	0.889725	1878.213	ug/L	0.021
Ni	62	0.214291	102.335	ug/L	0.047
Cu	63	0.450004	2322.653	ug/L	0.001
Zn	64	0.953942	10236.948	ug/L	0.048
Cu	65	0.327890	860.383	ug/L	0.004
Zn	66	0.297587	5626.130	ug/L	0.005
Zn	68	0.767031	4486.485	ug/L	0.049
Ge	72		129451.152	ug/L	
As	75	7.825036	9793.089	ug/L	0.202
Se	82	0.726573	138.791	ug/L	0.083
ArCl	77		599.026	ug/L	
Br	79		47530.186	ug/L	

Br	81		70810.848	ug/L	
Y	89		369997.144	ug/L	
Mo	95	2.864119	9378.601	ug/L	0.138
Rh	103		343307.569	ug/L	
Ag	107	0.059818	1366.116	ug/L	0.008
Ag	109	0.048246	1210.760	ug/L	0.015
Cd	111	0.047352	231.005	ug/L	0.000
Cd	114	0.042971	502.352	ug/L	0.003
In	115		521621.004	ug/L	
Sb	121	0.203648	2393.339	ug/L	0.011
Sb	123	0.195510	1826.323	ug/L	0.002
Ba	137	8.623783	41752.746	ug/L	0.176
Ba	138	8.574907	269554.916	ug/L	0.216
Tb	159		767403.998	ug/L	
Ho	165		774428.302	ug/L	
Hg	200	0.090899	251.006	ug/L	0.005
Hg	202	0.071232	271.007	ug/L	0.007
Tl	205	-0.011130	1917.556	ug/L	0.007
Pb	208	0.160129	9732.808	ug/L	0.001
Bi	209		631700.244	ug/L	
Se	77	-0.360798	592.359	ug/L	0.068
Se	78	-2.718939	7215.147	ug/L	0.060

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		101.715
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.046
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 89.566
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 93.610
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.24
Sample Date/Time: Friday, August 23, 2013 00:10:53
Autosampler Position: 63
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.24.77895

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21566.898	ug/L	
Be	9	0.011302	6.333	ug/L	0.005
B	10	1.112965	161.336	ug/L	0.088
B	11	1.281975	943.725	ug/L	0.022
C	12		551477.359	ug/L	
Na	23	14.236756	82383.183	ug/L	1.280
Mg	24	1.692124	7070.122	ug/L	0.124
Mg	25	1.620363	1010.157	ug/L	0.173
Al	27	0.254887	7870.860	ug/L	0.115
Si	28		63359.678	ug/L	
P	31	6.611482	11528.458	ug/L	2.812
S	32		81488588.626	ug/L	
Cl	35		7574461.556	ug/L	
K	39	6.487808	411316.816	ug/L	2.705
Ca	44	17.905865	8481.471	ug/L	0.891
Sc	45		146487.557	ug/L	
Ti	47	0.080769	158.670	ug/L	0.028
Ti	48	0.044601	335.756	ug/L	0.019
V	51	0.183059	22400.456	ug/L	0.175
ClO	51		22357.699	ug/L	
Cr	52	-0.020183	6153.544	ug/L	0.091
Cr	53	0.383321	7318.018	ug/L	0.625
Fe	54	8.256098	49763.626	ug/L	7.681
Mn	55	0.103320	1957.564	ug/L	0.007
Fe	56	-21.066915	1737183.845	ug/L	13.140
Fe	57	3.727670	8518.174	ug/L	1.481
Co	59	-0.025734	336.343	ug/L	0.005
Ni	60	0.183086	352.010	ug/L	0.021
Ni	62	0.205403	84.668	ug/L	0.022
Cu	63	0.053527	404.346	ug/L	0.013
Zn	64	-3.491813	2191.192	ug/L	0.153
Cu	65	0.047628	182.670	ug/L	0.008
Zn	66	-3.631548	1341.112	ug/L	0.121
Zn	68	-3.442391	1050.738	ug/L	0.167
Ge	72		125061.980	ug/L	
As	75	0.002343	-202.470	ug/L	0.028
Se	82	0.086980	41.856	ug/L	0.017
ArCl	77		526.354	ug/L	
Br	79		11383.574	ug/L	

Br	81		32480.930	ug/L	
Y	89		361122.199	ug/L	
Mo	95	0.113316	552.356	ug/L	0.011
Rh	103		351446.517	ug/L	
Ag	107	0.025560	974.395	ug/L	0.006
Ag	109	0.017850	877.051	ug/L	0.007
Cd	111	-0.014602	54.001	ug/L	0.001
Cd	114	-0.009322	153.003	ug/L	0.005
In	115		516924.506	ug/L	
Sb	121	0.084059	1431.794	ug/L	0.013
Sb	123	0.080865	1106.824	ug/L	0.012
Ba	137	0.102004	560.690	ug/L	0.007
Ba	138	0.100838	3571.839	ug/L	0.007
Tb	159		760179.861	ug/L	
Ho	165		763311.524	ug/L	
Hg	200	0.001279	22.334	ug/L	0.001
Hg	202	-0.000690	26.000	ug/L	0.000
Tl	205	-0.010147	1930.559	ug/L	0.003
Pb	208	0.038172	3310.271	ug/L	0.007
Bi	209		631392.853	ug/L	
Se	77	-1.197955	493.352	ug/L	0.446
Se	78	-2.749693	7203.072	ug/L	0.981

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		86.833
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 84.095
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 88.760
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 92.266
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.25
Sample Date/Time: Friday, August 23, 2013 00:17:25
Autosampler Position: 64
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.25.77896

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22268.619	ug/L	
Be	9	0.002460	3.333	ug/L	0.000
B	10	0.702302	125.669	ug/L	0.094
B	11	0.723534	677.699	ug/L	0.009
C	12		533248.236	ug/L	
Na	23	10.941275	69051.667	ug/L	0.407
Mg	24	1.766453	7637.309	ug/L	0.106
Mg	25	1.520574	1003.489	ug/L	0.065
Al	27	34.187919	203132.557	ug/L	0.954
Si	28		62497.088	ug/L	
P	31	3.221181	10941.007	ug/L	0.193
S	32		80765588.502	ug/L	
Cl	35		7454329.866	ug/L	
K	39	2.541026	399526.261	ug/L	1.695
Ca	44	4.752845	5528.901	ug/L	0.873
Sc	45		152510.004	ug/L	
Ti	47	0.057451	150.669	ug/L	0.005
Ti	48	0.033412	274.402	ug/L	0.001
V	51	0.095803	22549.825	ug/L	0.008
ClO	51		23001.627	ug/L	
Cr	52	-0.035015	6310.373	ug/L	0.013
Cr	53	0.219484	7479.151	ug/L	0.096
Fe	54	2.151160	48255.754	ug/L	1.862
Mn	55	0.129987	2373.667	ug/L	0.002
Fe	56	-27.546732	1746764.691	ug/L	0.871
Fe	57	3.966918	8938.623	ug/L	1.264
Co	59	-0.025420	351.344	ug/L	0.008
Ni	60	0.181322	364.344	ug/L	0.004
Ni	62	0.174551	79.668	ug/L	0.056
Cu	63	0.080170	533.021	ug/L	0.003
Zn	64	-3.722245	1935.362	ug/L	0.008
Cu	65	0.069445	235.339	ug/L	0.003
Zn	66	-3.896000	1157.085	ug/L	0.036
Zn	68	-3.698148	921.723	ug/L	0.017
Ge	72		132025.755	ug/L	
As	75	0.005989	-207.845	ug/L	0.012
Se	82	-0.026730	26.447	ug/L	0.127
ArCl	77		512.686	ug/L	
Br	79		7561.219	ug/L	

Br	81		28656.382	ug/L	
Y	89		373944.222	ug/L	
Mo	95	0.058280	403.680	ug/L	0.009
Rh	103		364916.504	ug/L	
Ag	107	0.007102	798.710	ug/L	0.008
Ag	109	0.001474	729.370	ug/L	0.004
Cd	111	-0.011718	64.334	ug/L	0.001
Cd	114	-0.011728	142.669	ug/L	0.002
In	115		534717.893	ug/L	
Sb	121	0.054762	1245.764	ug/L	0.002
Sb	123	0.044804	918.426	ug/L	0.004
Ba	137	0.135695	747.705	ug/L	0.003
Ba	138	0.134429	4780.852	ug/L	0.006
Tb	159		797235.884	ug/L	
Ho	165		799276.986	ug/L	
Hg	200	0.001647	24.334	ug/L	0.001
Hg	202	-0.003216	18.334	ug/L	0.000
Tl	205	-0.013568	1883.882	ug/L	0.007
Pb	208	-0.005269	1133.039	ug/L	0.001
Bi	209		682726.951	ug/L	
Se	77	-0.964003	521.020	ug/L	0.315
Se	78	-2.803130	7182.091	ug/L	0.389

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		90.403
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 88.777
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 91.815
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 96.613
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123529.27
Sample Date/Time: Friday, August 23, 2013 00:23:57
Autosampler Position: 65
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.27.77897

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23648.054	ug/L	
Be	9	0.100626	48.667	ug/L	0.004
B	10	195.165736	24607.194	ug/L	4.220
B	11	205.366764	136014.084	ug/L	6.503
C	12		704635.727	ug/L	
Na	23	61100.752305	380285401.832	ug/L	1550.813
Mg	24	13939.740981	59469781.238	ug/L	374.975
Mg	25	14037.941001	8695775.609	ug/L	375.696
Al	27	11.845010	90612.005	ug/L	0.280
Si	28		24088811.755	ug/L	
P	31	370.206938	156099.187	ug/L	13.406
S	32		75766636.151	ug/L	
Cl	35		7877460.858	ug/L	
K	39	7410.040240	67260560.670	ug/L	107.746
Ca	44	16850.758755	5138487.993	ug/L	214.100
Sc	45		184761.541	ug/L	
Ti	47	3.676012	3011.862	ug/L	0.042
Ti	48	20.951142	179788.048	ug/L	0.169
V	51	-0.257146	23295.712	ug/L	0.005
ClO	51		24032.311	ug/L	
Cr	52	-0.114960	6866.942	ug/L	0.031
Cr	53	-1.339217	7233.949	ug/L	0.090
Fe	54	14706.029835	10853603.584	ug/L	157.313
Mn	55	368.255314	5572070.875	ug/L	1.609
Fe	56	14796.190705	184820339.256	ug/L	267.130
Fe	57	15152.354793	4462018.543	ug/L	210.964
Co	59	4.408520	48131.924	ug/L	0.024
Ni	60	9.106780	20357.983	ug/L	0.127
Ni	62	8.479743	2947.174	ug/L	0.136
Cu	63	0.786124	4187.673	ug/L	0.016
Zn	64	-0.242472	8800.508	ug/L	0.086
Cu	65	0.177488	553.356	ug/L	0.005
Zn	66	-0.635937	5021.437	ug/L	0.004
Zn	68	1.430608	5382.981	ug/L	0.011
Ge	72		128440.975	ug/L	
As	75	14.194690	17797.294	ug/L	0.077
Se	82	2.272528	366.835	ug/L	0.470
ArCl	77		679.366	ug/L	
Br	79		129467.271	ug/L	

Br	81		156703.018	ug/L	
Y	89		359917.530	ug/L	
Mo	95	5.553754	17849.043	ug/L	0.302
Rh	103		329932.846	ug/L	
Ag	107	-0.011623	541.688	ug/L	0.004
Ag	109	-0.017931	479.351	ug/L	0.002
Cd	111	0.014285	130.002	ug/L	0.003
Cd	114	0.017270	315.009	ug/L	0.005
In	115		496064.651	ug/L	
Sb	121	0.128192	1708.178	ug/L	0.003
Sb	123	0.130876	1358.067	ug/L	0.008
Ba	137	74.042578	340325.665	ug/L	1.659
Ba	138	72.049058	2150484.646	ug/L	1.572
Tb	159		743172.125	ug/L	
Ho	165		750486.289	ug/L	
Hg	200	0.004711	30.334	ug/L	0.002
Hg	202	0.001901	34.000	ug/L	0.003
Tl	205	-0.017782	1617.494	ug/L	0.006
Pb	208	0.112120	7002.131	ug/L	0.003
Bi	209		634007.403	ug/L	
Se	77	0.045100	640.362	ug/L	0.506
Se	78	-3.062705	7080.172	ug/L	0.306

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		109.521
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 86.367
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.178
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.716
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.28
Sample Date/Time: Friday, August 23, 2013 00:56:33
Autosampler Position: 66
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.28.77902

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24602.598	ug/L	
Be	9	0.074202	36.667	ug/L	0.002
B	10	201.185590	25378.349	ug/L	10.639
B	11	211.284052	139983.657	ug/L	5.311
C	12		711325.488	ug/L	
Na	23	62626.198111	389947853.714	ug/L	381.233
Mg	24	14168.941999	60473569.792	ug/L	0.873
Mg	25	14153.882977	8771450.007	ug/L	78.167
Al	27	5.252558	44754.356	ug/L	0.020
Si	28		24093006.409	ug/L	
P	31	340.036765	144412.378	ug/L	2.907
S	32		77727908.876	ug/L	
Cl	35		8104525.817	ug/L	
K	39	7676.402624	69700347.789	ug/L	115.692
Ca	44	17247.605739	5262318.890	ug/L	157.216
Sc	45		184881.040	ug/L	
Ti	47	3.062582	2533.712	ug/L	0.051
Ti	48	22.877638	196467.435	ug/L	0.882
V	51	-0.174939	24250.935	ug/L	0.120
ClO	51		24547.361	ug/L	
Cr	52	-0.114515	6878.408	ug/L	0.021
Cr	53	-1.072702	7552.213	ug/L	0.217
Fe	54	14058.111887	10384061.144	ug/L	272.131
Mn	55	388.241190	5878128.205	ug/L	4.487
Fe	56	14132.129049	176728712.264	ug/L	210.013
Fe	57	14276.694307	4207028.125	ug/L	137.709
Co	59	3.137244	34475.603	ug/L	0.050
Ni	60	7.260705	16247.335	ug/L	0.015
Ni	62	6.448094	2251.635	ug/L	0.152
Cu	63	0.809036	4305.063	ug/L	0.039
Zn	64	-2.695879	4252.254	ug/L	0.092
Cu	65	0.153884	495.018	ug/L	0.005
Zn	66	-3.164322	2215.626	ug/L	0.055
Zn	68	-0.952757	3402.671	ug/L	0.012
Ge	72		133833.981	ug/L	
As	75	13.412231	17508.037	ug/L	0.343
Se	82	2.250965	379.037	ug/L	0.206
ArCl	77		714.702	ug/L	
Br	79		135222.965	ug/L	

Br	81		163203.326	ug/L	
Y	89		374150.695	ug/L	
Mo	95	5.567524	18646.977	ug/L	0.203
Rh	103		338266.029	ug/L	
Ag	107	0.022264	928.390	ug/L	0.008
Ag	109	0.015795	846.715	ug/L	0.008
Cd	111	0.007808	116.002	ug/L	0.006
Cd	114	0.010869	283.341	ug/L	0.000
In	115		510940.795	ug/L	
Sb	121	0.297057	3069.549	ug/L	0.006
Sb	123	0.312131	2494.319	ug/L	0.001
Ba	137	70.212959	332544.065	ug/L	1.759
Ba	138	67.759080	2083920.076	ug/L	1.209
Tb	159		752628.166	ug/L	
Ho	165		753620.997	ug/L	
Hg	200	0.008429	39.667	ug/L	0.003
Hg	202	0.005887	47.334	ug/L	0.002
Tl	205	-0.014968	1725.516	ug/L	0.008
Pb	208	0.126705	7772.721	ug/L	0.002
Bi	209		630138.025	ug/L	
Se	77	0.403081	682.699	ug/L	0.199
Se	78	-1.990916	7500.996	ug/L	0.425

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		109.591
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.993
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 87.732
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.095
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123529.29
Sample Date/Time: Friday, August 23, 2013 01:03:05
Autosampler Position: 67
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123529.29.77903

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23944.830	ug/L	
Be	9	0.066274	33.000	ug/L	0.000
B	10	203.548094	25629.679	ug/L	1.203
B	11	215.005901	142190.736	ug/L	0.642
C	12		694637.203	ug/L	
Na	23	61861.230316	384523011.322	ug/L	224.917
Mg	24	14143.259418	60260147.459	ug/L	63.281
Mg	25	14224.007926	8799098.095	ug/L	29.094
Al	27	9.469832	73970.421	ug/L	0.236
Si	28		23899447.304	ug/L	
P	31	311.588120	133080.222	ug/L	4.621
S	32		79020136.710	ug/L	
Cl	35		8123845.876	ug/L	
K	39	7689.017598	69685876.928	ug/L	38.156
Ca	44	17219.542177	5244346.336	ug/L	24.391
Sc	45		184554.865	ug/L	
Ti	47	3.350799	2754.779	ug/L	0.067
Ti	48	21.271638	182342.212	ug/L	0.036
V	51	-0.220543	23685.053	ug/L	0.015
ClO	51		23884.245	ug/L	
Cr	52	0.314039	11015.023	ug/L	0.005
Cr	53	-0.626683	8061.990	ug/L	0.148
Fe	54	13276.860280	9791934.236	ug/L	83.270
Mn	55	378.582368	5721333.455	ug/L	2.397
Fe	56	13389.490710	167248735.868	ug/L	183.478
Fe	57	13587.576204	3996645.342	ug/L	223.800
Co	59	3.444376	37707.416	ug/L	0.067
Ni	60	7.627048	17027.773	ug/L	0.328
Ni	62	7.021842	2444.020	ug/L	0.089
Cu	63	0.819862	4351.085	ug/L	0.006
Zn	64	-2.242581	5084.199	ug/L	0.026
Cu	65	0.166877	526.020	ug/L	0.013
Zn	66	-2.662828	2767.782	ug/L	0.017
Zn	68	-0.639972	3656.439	ug/L	0.014
Ge	72		131872.570	ug/L	
As	75	12.768911	16415.656	ug/L	0.002
Se	82	2.457059	404.481	ug/L	0.104
ArCl	77		682.032	ug/L	
Br	79		132377.788	ug/L	

Br	81		161160.874	ug/L	
Y	89		369623.487	ug/L	
Mo	95	5.470745	18063.141	ug/L	0.194
Rh	103		339812.354	ug/L	
Ag	107	0.000774	693.033	ug/L	0.001
Ag	109	-0.004206	636.695	ug/L	0.002
Cd	111	0.011604	126.335	ug/L	0.002
Cd	114	0.012314	292.341	ug/L	0.000
In	115		510281.310	ug/L	
Sb	121	0.194058	2268.306	ug/L	0.010
Sb	123	0.189085	1747.598	ug/L	0.006
Ba	137	68.972585	326104.583	ug/L	3.165
Ba	138	67.356851	2068182.160	ug/L	2.382
Tb	159		759952.213	ug/L	
Ho	165		756595.595	ug/L	
Hg	200	0.002719	25.667	ug/L	0.003
Hg	202	0.003097	38.334	ug/L	0.001
Tl	205	-0.015744	1706.845	ug/L	0.006
Pb	208	0.086491	5753.433	ug/L	0.005
Bi	209		616100.923	ug/L	
Se	77	0.270599	667.031	ug/L	0.179
Se	78	-2.192899	7421.690	ug/L	0.478

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		109.398
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	88.674
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	87.619
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.454
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123649
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/16/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 9.3.13 Date | 315 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123649.01	LC-L-1-0813	8/16/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy
123649.02	LC-L-1-Dup-0813	8/16/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy
123649.03	GW-FPC-8A-0813	8/16/13	8/14/13	aqueous		Adheres to Sample Acceptance Policy
123649.04	Trip Blank - 8260	8/16/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123649.05	Trip Blank - 1,4 Dioxane	8/16/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123649.06	GW-AE-3A-0813	8/16/13	8/15/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT



EAI ID#: **123649**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/16/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

Additional sample was received for locations "LC-L-1-0813" and "GW-AE-3A-0813" for quality control requirements.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

VOC 8260B

The calibration verification analyzed on 8/22/13 exceeded % deviation criteria of 20% for bromoform. Bromoform was not detected in any samples. The detection of bromoform in the low level standard analyzed with the samples supports the reporting limit.

1,4-DIOXANE 8260B SIM

The low level standard (STD 0.25) analyzed with the batch was run outside the 12 hour tune window.

WET CHEMISTRY

All Quality Control criteria were met.

METALS

The LCS deviated high from acceptability criteria for antimony (Sb). Antimony was not detected above the reporting limit in samples.

MS/MSD analyzed on sample "LC-L-1-0813" deviated below the acceptance criteria. This is due to matrix interference from a highly concentrated QC Parent in the range of 8 times the spike concentration.

LABORATORY REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	LC-L-1-0813	LC-L-1-Dup -0813	GW-FPC-8A -0813	Trip Blank - 8260	GW-AE-3A -0813
Lab Sample ID:	123649.01	123649.02	123649.03	123649.04	123649.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/14/13	8/14/13	8/14/13	7/29/13	8/15/13
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
Analyst:	BAM	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	**7**
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	**10**	**10**	< 5	< 5	**12**
Acetone	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 5	< 5	< 5	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5	< 5	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethane	< 2	< 2	< 2	< 2	< 2
2,2-Dichloropropane	< 2	< 2	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2	< 2	< 2	< 2
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 2	< 2	< 2	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10
Chloroform	< 2	< 2	< 2	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2	< 2	< 2	< 2
Carbon tetrachloride	< 2	< 2	< 2	< 2	< 2
1,1-Dichloropropene	< 2	< 2	< 2	< 2	< 2
Benzene	**2**	**2**	< 1	< 1	**1**
1,2-Dichloroethane	< 2	< 2	< 2	< 2	< 2
Trichloroethene	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane	< 2	< 2	< 2	< 2	< 2
Dibromomethane	< 2	< 2	< 2	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2	< 2	< 2	< 2
Toluene	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2	< 2	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2	< 2	< 2	< 2
2-Hexanone	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	< 2	< 2	< 2	< 2	< 2
1,3-Dichloropropane	< 2	< 2	< 2	< 2	< 2
Dibromochloromethane	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2	< 2
Chlorobenzene	**13**	**14**	< 2	< 2	**5**
1,1,1,2-Tetrachloroethane	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1	< 1	< 1

LABORATORY REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	LC-L-1-0813	LC-L-1-Dup -0813	GW-FPC-8A -0813	Trip Blank - 8260	GW-AE-3A -0813
Lab Sample ID:	123649.01	123649.02	123649.03	123649.04	123649.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/14/13	8/14/13	8/14/13	7/29/13	8/15/13
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
Analyst:	BAM	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1	1
mp-Xylene	< 1	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2	< 2
IsoPropylbenzene	**1**	1	< 1	< 1	< 1
Bromobenzene	< 2	< 2	< 2	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2	< 2	< 2	< 2
1,2,3-Trichloropropane	< 2	< 2	< 2	< 2	< 2
n-Propylbenzene	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 2	< 2	< 2	< 2	< 2
4-Chlorotoluene	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	**2**	**2**	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 5	< 5	< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	**99 %R**	**99 %R**	**98 %R**	**98 %R**	**98 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**101 %R**	**101 %R**	**102 %R**	**102 %R**
Toluene-d8 (surr)	**100 %R**	**100 %R**	**99 %R**	**100 %R**	**99 %R**

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	20 (102 %R)	20 (100 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloromethane	< 2	19 (96 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	< 2	20 (99 %R)	19 (97 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromomethane	< 2	18 (89 %R)	19 (93 %R) (4 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloroethane	< 5	20 (98 %R)	19 (97 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	< 5	19 (95 %R)	19 (94 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	< 5	21 (107 %R)	21 (104 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Acetone	< 10	20 (110 %R)	20 (112 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	< 1	18 (89 %R)	18 (88 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	< 30	110 (110 %R)	110 (111 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methylene chloride	< 5	19 (96 %R)	19 (94 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	< 5	17 (85 %R)	17 (84 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	< 5	21 (105 %R)	21 (104 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	< 5	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	< 5	20 (100 %R)	20 (99 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	< 5	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	< 2	17 (86 %R)	17 (84 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	< 2	22 (110 %R)	22 (109 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	< 10	20 (113 %R)	20 (111 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	< 2	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	< 10	20 (116 %R)	20 (115 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chloroform	< 2	20 (99 %R)	19 (97 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	< 2	19 (96 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	< 2	19 (94 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	< 2	19 (94 %R)	19 (93 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Benzene	< 1	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	< 2	20 (101 %R)	20 (99 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichloroethene	< 2	19 (94 %R)	19 (94 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	< 2	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromomethane	< 2	21 (106 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	< 0.5	19 (96 %R)	19 (94 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	< 50	< 50 (152 %R)	< 50 (150 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	< 10	20 (121 %R)	20 (119 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	< 2	22 (108 %R)	21 (106 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Toluene	< 1	21 (103 %R)	20 (101 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	< 2	21 (107 %R)	21 (105 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Hexanone	< 10	20 (121 %R)	20 (121 %R) (0 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	< 2	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	< 2	19 (93 %R)	18 (92 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	< 2	21 (106 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	< 2	20 (101 %R)	20 (100 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	< 2	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
mp-Xylene	< 1	40 (99 %R)	39 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
o-Xylene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Styrene	< 1	21 (107 %R)	21 (106 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromoform	< 2	19 (94 %R)	19 (93 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	< 1	23 (113 %R)	22 (111 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromobenzene	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	< 2	22 (112 %R)	22 (112 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	< 2	22 (108 %R)	21 (106 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	< 1	21 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	< 2	20 (100 %R)	20 (98 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	< 2	20 (102 %R)	20 (100 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	< 1	21 (103 %R)	21 (103 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	< 1	21 (103 %R)	21 (103 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	< 1	21 (104 %R)	20 (102 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	< 1	21 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	< 1	21 (107 %R)	21 (107 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	< 1	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	< 1	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	< 1	21 (106 %R)	21 (106 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	< 2	20 (101 %R)	21 (103 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	< 1	21 (106 %R)	22 (108 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	< 1	21 (104 %R)	21 (104 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	< 0.5	18 (89 %R)	18 (90 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Naphthalene	< 5	23 (113 %R)	23 (114 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	< 1	21 (106 %R)	21 (107 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	98 %R	100 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4 (surr)	101 %R	101 %R	102 %R	8/22/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	100 %R	99 %R	99 %R	8/22/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	123649.01	< 5	22 (109 %R)	22 (109 %R) (0 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloromethane	123649.01	< 2	22 (112 %R)	22 (111 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	123649.01	< 2	22 (110 %R)	22 (110 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromomethane	123649.01	< 2	21 (107 %R)	22 (110 %R) (3 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloroethane	123649.01	< 5	24 (104 %R)	24 (104 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	123649.01	< 5	21 (105 %R)	21 (104 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	123649.01	10	30 (102 %R)	30 (100 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Acetone	123649.01	< 10	20 (104 %R)	20 (96 %R) (8 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	123649.01	< 1	20 (98 %R)	19 (96 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	123649.01	< 30	100 (86 %R)	100 (85 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methylene chloride	123649.01	< 5	20 (98 %R)	20 (97 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	123649.01	< 5	19 (94 %R)	19 (93 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	123649.01	< 5	20 (98 %R)	20 (98 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	123649.01	< 5	20 (98 %R)	20 (98 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	123649.01	< 5	20 (100 %R)	20 (99 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	123649.01	< 5	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	123649.01	< 2	21 (105 %R)	21 (104 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	123649.01	< 2	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	123649.01	< 2	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	123649.01	< 2	23 (113 %R)	22 (111 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	123649.01	< 10	20 (91 %R)	20 (92 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	123649.01	< 2	20 (101 %R)	20 (100 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	123649.01	< 10	30 (95 %R)	30 (91 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chloroform	123649.01	< 2	20 (101 %R)	20 (99 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	123649.01	< 2	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	123649.01	< 2	20 (102 %R)	20 (102 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	123649.01	< 2	20 (101 %R)	20 (100 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Benzene	123649.01	2	23 (106 %R)	23 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	123649.01	< 2	20 (97 %R)	19 (96 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichloroethene	123649.01	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	123649.01	< 2	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromomethane	123649.01	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	123649.01	< 0.5	19 (95 %R)	19 (96 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	123649.01	22	< 50 (113 %R)	< 50 (111 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	123649.01	< 10	20 (100 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	123649.01	< 2	22 (110 %R)	22 (109 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Toluene	123649.01	< 1	22 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	123649.01	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	123649.01	< 2	20 (100 %R)	20 (100 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Hexanone	123649.01	< 10	20 (99 %R)	20 (101 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	123649.01	< 2	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	123649.01	< 2	19 (97 %R)	19 (96 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	123649.01	< 2	18 (90 %R)	18 (90 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	123649.01	< 2	20 (98 %R)	20 (98 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	123649.01	13	33 (97 %R)	32 (93 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	123649.01	< 2	21 (106 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	123649.01	< 1	21 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
mp-Xylene	123649.01	< 1	41 (103 %R)	41 (101 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
o-Xylene	123649.01	< 1	21 (105 %R)	21 (104 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Styrene	123649.01	< 1	22 (109 %R)	21 (107 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromoform	123649.01	< 2	17 (87 %R)	17 (87 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	123649.01	1	25 (117 %R)	24 (115 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromobenzene	123649.01	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	123649.01	< 2	20 (98 %R)	20 (99 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	123649.01	< 2	19 (94 %R)	19 (94 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	123649.01	< 1	22 (109 %R)	22 (109 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	123649.01	< 2	20 (101 %R)	20 (101 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	123649.01	< 2	21 (103 %R)	21 (103 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	123649.01	< 1	21 (105 %R)	21 (105 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	123649.01	< 1	21 (105 %R)	21 (106 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	123649.01	< 1	21 (105 %R)	21 (105 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	123649.01	< 1	22 (107 %R)	22 (108 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	123649.01	< 1	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	123649.01	< 1	22 (109 %R)	22 (110 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	123649.01	2	22 (101 %R)	22 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	123649.01	< 1	21 (100 %R)	21 (100 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	123649.01	< 1	22 (108 %R)	22 (110 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	123649.01	< 2	17 (87 %R)	18 (88 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	123649.01	< 1	21 (103 %R)	21 (106 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	123649.01	< 1	20 (98 %R)	20 (101 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	123649.01	< 0.5	18 (91 %R)	19 (95 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Naphthalene	123649.01	< 5	20 (100 %R)	21 (102 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	123649.01	< 1	20 (97 %R)	20 (101 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	123649.01	103 %R	99 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4	123649.01	101 %R	100 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	123649.01	100 %R	99 %R	99 %R	8/22/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	123649.06	< 5	20 (102 %R)	21 (105 %R) (3 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloromethane	123649.06	< 2	21 (105 %R)	21 (107 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	123649.06	< 2	20 (102 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromomethane	123649.06	< 2	19 (96 %R)	21 (105 %R) (9 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloroethane	123649.06	7	27 (100 %R)	27 (102 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	123649.06	< 5	19 (97 %R)	20 (99 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	123649.06	12	32 (101 %R)	32 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Acetone	123649.06	< 10	20 (81 %R)	20 (84 %R) (4 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	123649.06	< 1	19 (95 %R)	18 (91 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	123649.06	< 30	90 (84 %R)	90 (80 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methylene chloride	123649.06	< 5	19 (96 %R)	19 (92 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	123649.06	< 5	19 (91 %R)	18 (87 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	123649.06	< 5	19 (95 %R)	18 (91 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	123649.06	< 5	19 (95 %R)	18 (92 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	123649.06	< 5	20 (98 %R)	19 (94 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	123649.06	< 5	19 (96 %R)	19 (93 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	123649.06	< 2	20 (102 %R)	19 (97 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	123649.06	< 2	20 (100 %R)	19 (96 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	123649.06	< 2	20 (100 %R)	19 (95 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	123649.06	< 2	22 (109 %R)	21 (106 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	123649.06	< 10	20 (85 %R)	20 (87 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	123649.06	< 2	20 (98 %R)	19 (94 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	123649.06	< 10	20 (91 %R)	20 (86 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chloroform	123649.06	< 2	20 (99 %R)	19 (94 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	123649.06	< 2	20 (99 %R)	19 (95 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	123649.06	< 2	20 (99 %R)	19 (96 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	123649.06	< 2	20 (99 %R)	19 (94 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Benzene	123649.06	1	22 (106 %R)	22 (101 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	123649.06	< 2	19 (96 %R)	18 (91 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichloroethene	123649.06	< 2	19 (97 %R)	18 (92 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	123649.06	< 2	20 (101 %R)	19 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromomethane	123649.06	< 2	20 (98 %R)	19 (93 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	123649.06	< 0.5	19 (94 %R)	18 (90 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	123649.06	21	< 50 (119 %R)	< 50 (104 %R) (13	8/22/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	123649.06	< 10	20 (93 %R)	20 (96 %R) (3 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	123649.06	< 2	21 (107 %R)	20 (102 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Toluene	123649.06	< 1	21 (104 %R)	20 (100 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	123649.06	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	123649.06	< 2	20 (100 %R)	19 (96 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Hexanone	123649.06	< 10	20 (93 %R)	20 (96 %R) (3 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	123649.06	< 2	20 (102 %R)	19 (97 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	123649.06	< 2	19 (96 %R)	18 (92 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	123649.06	< 2	18 (88 %R)	17 (85 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	123649.06	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	123649.06	5	25 (101 %R)	24 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	123649.06	< 2	21 (104 %R)	20 (100 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	123649.06	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
mp-Xylene	123649.06	< 1	40 (101 %R)	39 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
o-Xylene	123649.06	< 1	21 (103 %R)	20 (99 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Styrene	123649.06	< 1	22 (108 %R)	21 (103 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromoform	123649.06	< 2	17 (85 %R)	17 (83 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	123649.06	< 1	24 (115 %R)	23 (111 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromobenzene	123649.06	< 2	20 (98 %R)	19 (95 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	123649.06	< 2	19 (97 %R)	19 (95 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	123649.06	< 2	19 (93 %R)	18 (91 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	123649.06	< 1	22 (108 %R)	21 (105 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	123649.06	< 2	20 (99 %R)	19 (97 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	123649.06	< 2	21 (103 %R)	20 (100 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	123649.06	< 1	21 (105 %R)	20 (101 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	123649.06	< 1	21 (105 %R)	20 (102 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	123649.06	< 1	21 (104 %R)	20 (101 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	123649.06	< 1	22 (108 %R)	21 (104 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	123649.06	< 1	20 (102 %R)	20 (98 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	123649.06	< 1	22 (109 %R)	21 (106 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	123649.06	< 1	21 (102 %R)	21 (99 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	123649.06	< 1	20 (100 %R)	20 (96 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	123649.06	< 1	22 (109 %R)	21 (105 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	123649.06	< 2	17 (84 %R)	17 (83 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	123649.06	< 1	21 (103 %R)	20 (100 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	123649.06	< 1	20 (97 %R)	19 (95 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	123649.06	< 0.5	18 (90 %R)	18 (89 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Naphthalene	123649.06	< 5	20 (97 %R)	19 (96 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	123649.06	< 1	19 (96 %R)	19 (94 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	123649.06	103 %R	100 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4	123649.06	102 %R	101 %R	101 %R	8/22/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	123649.06	99 %R	99 %R	99 %R	8/22/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

LABORATORY REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	LC-L-1-0813	LC-L-1-Dup -0813	GW-FPC-8A -0813	Trip Blank - 1,4 Dioxane	GW-AE-3A -0813
Lab Sample ID:	123649.01	123649.02	123649.03	123649.05	123649.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/14/13	8/14/13	8/14/13	7/29/13	8/15/13
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/21/13	8/21/13	8/21/13	8/21/13	8/21/13
Analyst:	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	10	10	1	1	10
1,4-Dioxane	**22**	**24**	**0.60**	< 0.25	**21**
4-Bromofluorobenzene (surr)	**103 %R**	**103 %R**	**103 %R**	**103 %R**	**103 %R**
Toluene-d8 (surr)	**100 %R**	**99 %R**	**100 %R**	**101 %R**	**99 %R**

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	5.2 (104 %R)	5.1 (102 %R) (2 RPD)	ug/l	8/21/13	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	103 %R	103 %R	103 %R	% Rec	8/21/13	70 - 130	50	8260B
Toluene-d8 (surr)	99 %R	95 %R	101 %R	% Rec	8/21/13	70 - 130	50	8260B

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	123649.01	22	68 (92 %R)	59 (75 %R) (20 RPD)	ug/l	8/21/13	70-130	20	8260B
4-Bromofluorobenzene	123649.01	103 %R	103 %R	103 %R	%	8/21/13		50	8260B
Toluene-d8 (surr)	123649.01	100 %R	96 %R	101 %R	%	8/21/13		50	8260B

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.3 (86 %R)	4.5 (89 %R) (3 RPD)	ug/l	8/21/13	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	105 %R	104 %R	104 %R	% Rec	8/21/13	70 - 130	50	8260B
Toluene-d8 (surr)	96 %R	95 %R	97 %R	% Rec	8/21/13	70 - 130	50	8260B

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	123649.06	21	64 (86 %R)	68 (95 %R) (10 RPD)	ug/l	8/21/13	70-130	20	8260B
4-Bromofluorobenzene	123649.06	103 %R	106 %R	105 %R	%	8/21/13		50	8260B
Toluene-d8 (surr)	123649.06	99 %R	102 %R	97 %R	%	8/21/13		50	8260B

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	LC-L-1-0813	LC-L-1-Dup -0813					
Lab Sample ID:	123649.01	123649.02					
Matrix:	aqueous	aqueous					
Date Sampled:	8/14/13	8/14/13					
Date Received:	8/16/13	8/16/13					
				Analysis			
			Units	**Date**	**Time**	**Method**	**Analyst**
Ammonia-N	**21**	**19**	mg/L	8/28/13	14:00	4500NH3D	SEL
COD	**52**	**68**	mg/L	8/23/13	9:20	H8000	SCW

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Ammonia-N	< 0.05	1.9 (95 %R)	1.9 (93 %R) (2 RPD)	mg/L	8/28/13	90 - 110	20	4500NH3
COD	< 10	97 (97 %R)	99 (99 %R) (2 RPD)	mg/L	8/23/13	85 - 115	20	H8000

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Ammonia-N	123649.01	21	22 (90 %R)	23 (100 %R) (11 RPD)	mg/L	8/28/13	80-120	20	4500NH3
COD	123649.01	52	99 (90 %R)	100 (97 %R) (7 RPD)	mg/L	8/23/13	80-120	20	H8000

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	LC-L-1-0813	LC-L-1-Dup -0813	GW-FPC-8A -0813	GW-AE-3A -0813					
Lab Sample ID:	123649.01	123649.02	123649.03	123649.06					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/14/13	8/14/13	8/14/13	8/15/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13					
Aluminum	< 0.05	**0.08**	**0.22**	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	**0.005**	**0.007**	**0.002**	**0.14**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.092**	**0.11**	**0.007**	**0.064**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**56**	**57**	**27**	**35**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	**0.003**	AqTot	mg/L	8/21/13	200.8	DS
Copper	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	< 0.001	< 0.001	< 0.001	**0.003**	AqTot	mg/L	8/21/13	200.8	DS
Iron	**35**	**45**	**0.54**	**18**	AqTot	mg/L	8/21/13	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**16**	**16**	**4.0**	**16**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**2.5**	**2.5**	**0.21**	**0.84**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.005**	**0.005**	**0.001**	**0.006**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**25**	**27**	**2.1**	**16**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	**0.005**	**0.005**	< 0.001	**0.003**	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**78**	**76**	**14**	**63**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	< 0.005	**0.010**	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD		Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	11 (101 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.2 (118 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	1.0 (101 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	0.99 (99 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	1.0 (105 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	11 (100 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	1.0 (100 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.96 (96 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.91 (91 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.93 (93 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	11 (98 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	1.0 (102 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	11 (96 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.95 (95 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (110 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.94 (94 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	10 (95 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (104 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (109 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	11 (96 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	1.0 (102 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	1.0 (100 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.0 (104 %R)		NA	mg/L	8/21/13	85 - 115	20	200.8

The laboratory control sample for Antimony did not meet the acceptance criteria. The high bias has no impact on the data reported as no Antimony was found in any of the samples.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123649.01	< 0.05	8.4 (76 %R)	8.4 (76 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123649.01	< 0.001	1.2 (117 %R)	1.2 (118 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123649.01	0.005	0.92 (92 %R)	0.92 (91 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123649.01	0.092	1.1 (96 %R)	1.1 (97 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123649.01	< 0.001	0.77 (77 %R)	0.75 (75 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123649.01	56	65 (83 %R)	64 (75 %R) (10 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123649.01	< 0.001	0.94 (94 %R)	0.95 (95 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123649.01	< 0.001	0.78 (78 %R)	0.76 (76 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123649.01	< 0.001	0.81 (80 %R)	0.77 (77 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123649.01	< 0.001	0.75 (75 %R)	0.75 (74 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123649.01	35	45 (86 %R)	44 (85 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123649.01	< 0.001	0.95 (95 %R)	0.96 (96 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123649.01	16	24 (70 %R)	24 (70 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123649.01	2.5	3.3 (82 %R)	3.3 (80 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123649.01	< 0.0001	0.0010 (104 %R)	0.0010 (103 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123649.01	0.005	0.74 (74 %R)	0.73 (72 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123649.01	25	34 (74 %R)	34 (74 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123649.01	0.005	0.90 (90 %R)	0.90 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123649.01	< 0.001	0.77 (77 %R)	0.76 (76 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123649.01	78	84 (57 %R)	84 (58 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123649.01	< 0.001	0.96 (96 %R)	0.97 (97 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123649.01	< 0.005	0.81 (81 %R)	0.81 (81 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123649.01	< 0.005	0.77 (77 %R)	0.75 (74 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8

The Matrix Spike and Matrix Spike Duplicate had low Sodium recovery due to matrix interference from a highly concentrated QCParent in the range of 8 times the spike concentration.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123649**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123649.06	< 0.05	8.5 (77 %R)	8.4 (76 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123649.06	< 0.001	1.2 (117 %R)	1.2 (119 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123649.06	0.14	1.1 (95 %R)	1.1 (95 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123649.06	0.064	1.0 (97 %R)	1.0 (98 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123649.06	< 0.001	0.77 (77 %R)	0.79 (79 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123649.06	35	45 (88 %R)	44 (84 %R) (5 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123649.06	< 0.001	0.95 (95 %R)	0.96 (96 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123649.06	0.003	0.77 (77 %R)	0.77 (77 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123649.06	< 0.001	0.80 (80 %R)	0.79 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123649.06	0.003	0.74 (73 %R)	0.75 (75 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123649.06	18	28 (87 %R)	28 (85 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123649.06	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123649.06	16	24 (75 %R)	24 (73 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123649.06	0.84	1.6 (80 %R)	1.7 (82 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123649.06	< 0.0001	0.0010 (101 %R)	0.0011 (105 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123649.06	0.006	0.72 (72 %R)	0.74 (73 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123649.06	16	25 (78 %R)	24 (75 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123649.06	0.003	0.95 (94 %R)	0.97 (97 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123649.06	< 0.001	0.73 (73 %R)	0.72 (72 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123649.06	63	73 (90 %R)	73 (89 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123649.06	< 0.001	0.98 (98 %R)	0.99 (99 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123649.06	< 0.005	0.80 (80 %R)	0.81 (81 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123649.06	< 0.005	0.77 (77 %R)	0.79 (79 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
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*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

Chain-of-Custody Record

123649

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 BTEX	VOC: 524.2 MTBE only	VOC: 8260B 624 VTICS 1,4 Dioxane	VOC: 8021B BTEX Halos	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_3 NO_3-NO_2	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN Ammonia Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: Phenols TOC (COD) DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other: 1,4-Dioxane SIM	Other: TAL Metals		# of Containers	Notes MeOH Vial #
LC-L-1-0813	8/14/13 1300					X														X		X					X	X		8	
LC-L-1-DUP-0813	8/14/13 1310					X														X		X					X	X		8	
LC-L-1-MS-0813	8/14/13 1300					X														X		X					X	X		8	
LC-L-1-MSD-0813	8/14/13 1300					X														X		X					X	X		8	
GW-FPC-8A-0813	8/14/13 10:38					X																					X	X		7	
TRIP BLANK	8/14/13 10:38					X																								X	Sim 3
TRIP BLANK	8/14/13 1038																										X			2	
GW-AE-3A-0813	8/15/13 0937					X																					X	X		7	
GW-AE-3A-MS-0813	8/15/13 0937					X																					X	X		7	
GW-AE-3A-MSD-0813	8/15/13 0937					X																					X	X		7	
						14														5		5					X	N			

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Steve Marcotte

Company: Summit Env. Consultants

Address: 640 Main Street

City: Lewiston State: ME Zip: 04240

Phone: 207-795-6009 Ext.:

Fax:

E-Mail: smarcotte@summitenv.com

Site Name: Coakley Landfill

Project #: 12-3173

State: NH MA ME VT Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other: S-perfund

Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B C Special

Presumptive Certainty

Reporting Options: Prelims: Yes or No; If Yes: Fax or PDF

Electronic Options: No Fax E-Mail PDF Equis

Temp. 1 °C

ICE? Yes No

Sampler(s): Sue Herring

Relinquished By:	Date:	Time:	Received By:
	8/15/13	1700	Steve Marcotte
Steve Marcotte	8/16/13	1353	Tony Crea
Tony Crea	8-16-13	1515	

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals:

Samples Field Filtered? ☐ Yes ☑ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

All L-1 sample (4 sets) do 8260D, 1,4-Dioxane SIM, Ammonia, COD, TAL metals

Site History: Trip Blanks 8260B 7/29/13 7:40 1,4D 7/29/13 11:50 FAX PREPPED

Suspected Contamination:

Field Readings:

PO - 8/30/13

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(White: Original Green: Project Manager)

123649
C Level Package Data

123649
VOC 8260B Initial Calibration

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- ~~4092 (New ...)~~ 4085 (L) 4084 (G)

Analyst: [signature]

Date: ~~8/19/26~~ 8/19/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA081901	BFB25ng					VOCMS	5LID0819			
2		0.2					VOCMS	5VID0819	Used for BFB - Auto Find		✓
3		0.5					VOCMS				
4		1					VOCMS				
5		BFB25ng					VOCMS		Average entire peak		✓
6		2					VOCMS				
7		5					VOCMS				
8		10					VOCMS				
9		20					VOCMS				
10		50					VOCMS				
11		50G					VOCMS				
12		100					VOCMS				
13		100G					VOCMS				
14		200					VOCMS				
15		200G					VOCMS				
16		300					VOCMS				
17		300G					VOCMS				
18		400G					VOCMS				
19		600G					VOCMS				
20		Blank					VOCMS				
21							VOCMS				
22							VOCMS				
23		LCS20					VOCMS				
							VOCMS				
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Samples removed from autosampler, order and pH verified by N/A [signature] 8/20/13 1-23

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD
1)	Fluorobenzene IS																			
2)	dichlorodifluoromethane	NA	NA	0.380	0.322	0.329	0.315	0.294	NA	0.316	NA	0.322	NA	0.304	NA	0.286	NA	NA	0.319	8.388 ok
3) P	chloromethane	NA	NA	0.358	0.306	0.300	0.278	0.260	NA	0.275	NA	0.270	NA	0.261	NA	0.250	NA	NA	0.284	11.707 ok
4) C	vinyl chloride	0.201	0.162	0.175	0.151	0.144	0.135	0.122	NA	0.132	NA	0.123	NA	NA	NA	NA	NA	NA	0.149	17.498 #
5)	bromomethane	NA	NA	0.150	0.126	0.127	0.139	0.142	NA	0.168	NA	0.179	NA	0.174	NA	0.162	NA	NA	0.152	13.081 ok
6)	chloroethane	NA	NA	0.208	0.182	0.183	0.174	0.165	NA	0.180	NA	0.174	NA	0.163	NA	0.148	NA	NA	0.175	9.504 ok
7)	trichlorofluoromethane	NA	NA	0.440	0.377	0.390	0.375	0.357	NA	0.385	NA	0.378	NA	0.353	NA	0.326	NA	NA	0.376	8.269 ok
8)	diethyl ether	NA	NA	0.230	0.199	0.204	0.197	0.187	NA	0.200	NA	0.198	NA	0.184	NA	0.172	NA	NA	0.197	8.095 ok
9)	1,1,2-Trichlorotrifluoroethane	NA	NA	0.315	0.268	0.265	0.255	0.246	NA	0.262	NA	0.258	NA	0.242	NA	0.220	NA	NA	0.259	9.937 ok
10)	acrolein	NA	NA	NA	NA	0.025	0.022	0.021	NA	0.020	NA	0.020	NA	0.019	NA	0.018	NA	NA	0.021	10.811 ok
11)	acetone	NA	NA	NA	0.073	0.064	0.062	0.058	NA	0.060	NA	0.060	NA	0.056	NA	0.053	NA	NA	0.061	9.970 ok
12) C	1,1-dichloroethene	0.328	0.260	0.257	0.249	0.229	0.239	0.243	0.241	NA	0.226	NA	0.232	NA	0.217	NA	NA	NA	0.247	12.059 ok
13)	tert-Butyl Alcohol(TBA)	NA	NA	0.024	0.023	0.021	0.021	0.021	0.021	NA	0.020	NA	0.021	NA	0.020	NA	NA	NA	0.021	7.080 ok
14)	Iodomethane	NA	NA	0.169	0.163	0.223	0.260	0.277	NA	0.350	NA	0.360	NA	0.350	NA	0.325	NA	NA	0.275	28.075 #
15)	methylene chloride	NA	NA	0.293	0.307	0.267	0.266	0.266	0.260	NA	0.240	NA	0.239	NA	0.219	NA	NA	NA	0.262	10.345 ok
16)	carbon disulfide	NA	NA	0.962	0.812	0.697	0.710	0.726	0.732	NA	0.702	NA	0.706	NA	0.645	NA	NA	NA	0.744	12.483 ok
17)	acrylonitrile	NA	NA	0.132	0.112	0.111	0.110	0.103	NA	0.106	NA	0.105	NA	0.101	NA	0.096	NA	NA	0.108	9.409 ok
18)	Methyl-t-butyl ether(MTBE)	0.895	0.724	0.760	0.692	0.675	0.685	0.665	NA	0.689	NA	0.684	NA	0.667	NA	0.625	0.617	0.588	0.690	11.060 ok
19)	trans-1,2-dichloroethene	NA	NA	0.265	0.274	0.255	0.266	0.272	0.275	NA	0.260	NA	0.271	NA	0.261	NA	NA	NA	0.267	2.532 ok
20)	hexane	NA	NA	0.479	0.410	0.418	0.393	0.391	NA	0.420	NA	0.426	NA	0.400	NA	0.374	NA	NA	0.413	7.280 ok
21)	Isopropyl ether(DIPE)	NA	NA	0.950	0.957	0.895	0.928	0.944	0.958	NA	0.897	NA	0.923	NA	0.874	NA	NA	NA	0.925	3.299 ok
22)	vinyl acetate	NA	NA	0.533	0.456	0.453	0.431	0.472	NA	0.520	NA	0.531	NA	0.496	NA	0.378	NA	NA	0.475	10.826 ok
23) P	1,1-dichloroethane	NA	NA	0.506	0.498	0.471	0.494	0.503	0.503	NA	0.476	NA	0.493	NA	0.477	NA	NA	NA	0.491	2.711 ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
24)	Ethyl-t-butyl ether(ETBE)	NA	NA	0.838	0.836	0.786	0.817	0.827	0.843	NA	0.793	NA	0.823	NA	0.792	NA	NA	NA	0.817	2.656	ok
25)	2,2-dichloropropane	NA	NA	0.359	0.373	0.354	0.362	0.392	0.395	NA	0.362	NA	0.390	NA	0.360	NA	NA	NA	0.372	4.330	ok
26)	cis-1,2-dichloroethene	NA	NA	0.370	0.400	0.379	0.386	0.396	0.398	NA	0.374	NA	0.386	NA	0.369	NA	NA	NA	0.384	3.153	ok
27)	2-butanone(MEK)	NA	NA	0.141	0.119	0.111	0.107	0.100	NA	0.110	NA	0.110	NA	0.106	NA	0.103	NA	NA	0.112	10.926	ok
28)	bromochloromethane	NA	NA	0.140	0.143	0.133	0.141	0.141	0.146	NA	0.139	NA	0.146	NA	0.141	NA	NA	NA	0.141	2.824	ok
29)	Tetrahydrofuran(THF)	NA	NA	NA	0.087	0.079	0.075	0.070	NA	0.075	NA	0.075	NA	0.073	NA	0.070	NA	NA	0.075	7.386	ok
30) C	chloroform	NA	NA	0.499	0.487	0.454	0.473	0.479	0.483	NA	0.457	NA	0.476	NA	0.460	NA	NA	NA	0.474	3.170	ok
31)	SS Dibromofluoromethane_MS	0.232	0.234	0.236	0.236	0.238	0.239	0.239	0.239	0.236	0.241	0.237	0.236	0.236	0.240	0.231	0.232	0.224	0.236	1.748	ok
32)	1,1,1-trichloroethane	NA	NA	0.389	0.397	0.377	0.392	0.406	0.413	NA	0.392	NA	0.411	NA	0.391	NA	NA	NA	0.396	2.964	ok
33)	carbon tetrachloride	NA	NA	0.314	0.312	0.301	0.330	0.350	0.367	NA	0.353	NA	0.372	NA	0.353	NA	NA	NA	0.339	7.584	ok
34)	1,1-dichloropropene	NA	NA	0.403	0.403	0.374	0.388	0.399	0.401	NA	0.380	NA	0.394	NA	0.372	NA	NA	NA	0.391	3.194	ok
35)	SS 1,2-DCA-d4_MS	0.291	0.293	0.295	0.294	0.293	0.290	0.281	0.274	0.290	0.266	0.289	0.259	0.283	0.255	0.276	0.279	0.274	0.281	4.428	ok
36)	tert-amyl methyl ether(TAME)	NA	NA	0.718	0.710	0.677	0.706	0.719	0.744	NA	0.709	NA	0.748	NA	0.726	NA	NA	NA	0.717	2.970	ok
37)	benzene	NA	NA	1.171	1.176	1.101	1.132	1.151	1.161	NA	1.088	NA	1.096	NA	0.995	NA	NA	NA	1.119	5.096	ok
38)	1,2-dichloroethane	NA	NA	0.403	0.411	0.382	0.392	0.392	0.390	NA	0.359	NA	0.354	NA	0.324	NA	NA	NA	0.378	7.316	ok
39)	trichloroethene	0.381	0.317	0.301	0.294	0.282	0.294	0.294	0.300	NA	0.286	NA	0.295	NA	0.281	NA	NA	NA	0.302	9.199	ok
40) C	1,2-dichloropropane	NA	NA	0.278	0.281	0.271	0.280	0.288	0.293	NA	0.278	NA	0.290	NA	0.276	NA	NA	NA	0.282	2.551	ok
41)	1,4-dioxaneV	NA	NA	NA	NA	0.003	0.003	0.003	NA	0.003	NA	0.003	NA	0.003	NA	0.003	0.003	0.003	0.003	5.838	ok
42)	dibromomethane	NA	NA	0.158	0.162	0.151	0.158	0.161	0.167	NA	0.160	NA	0.166	NA	0.158	NA	NA	NA	0.160	2.910	ok
43)	bromodichloromethane	0.403	0.308	0.296	0.302	0.296	0.325	0.342	0.363	NA	0.348	NA	0.366	NA	0.352	NA	NA	NA	0.336	10.244	ok
44)	2-Chloroethoxyethene	NA	NA	0.022	0.013	0.019	0.019	0.027	NA	0.041	NA	0.061	NA	0.081	NA	0.089	NA	NA	0.041	69.330	#
45)	4-methyl-2-pentanone(MIBK)	NA	NA	0.095	0.080	0.084	0.086	0.082	NA	0.092	NA	0.094	NA	0.091	NA	0.089	NA	NA	0.088	5.866	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
46)	cis-1,3-dichloropropene	0.460	0.374	0.359	0.367	0.362	0.394	0.418	0.438	NA	0.419	NA	0.441	NA	0.418	NA	NA	NA	0.404	8.694	ok
47)	Chlorobenzene-D5 IS																				
48)	SS Toluene-d8_MS	1.289	1.271	1.281	1.276	1.265	1.270	1.272	1.257	1.284	1.269	1.287	1.254	1.268	1.247	1.268	1.258	1.252	1.269	0.971	ok
49) C	toluene	NA	NA	1.644	1.637	1.524	1.591	1.610	1.619	NA	1.492	NA	1.446	NA	1.254	NA	NA	NA	1.535	8.202	ok
50)	trans-1,3-dichloropropene	0.547	0.412	0.418	0.415	0.418	0.467	0.498	0.530	NA	0.502	NA	0.521	NA	0.477	NA	NA	NA	0.473	10.709	ok
51)	1,1,2-trichloroethane	NA	NA	0.248	0.244	0.233	0.245	0.245	0.252	NA	0.238	NA	0.248	NA	0.230	NA	NA	NA	0.242	3.010	ok
52)	2-hexanone	NA	NA	0.220	0.183	0.194	0.193	0.182	NA	0.201	NA	0.201	NA	0.195	NA	0.186	NA	NA	0.195	6.012	ok
53)	tetrachloroethene	0.531	0.419	0.434	0.428	0.399	0.414	0.418	0.427	NA	0.405	NA	0.408	NA	0.368	NA	NA	NA	0.423	9.501	ok
54)	1,3-dichloropropane	0.722	0.532	0.530	0.530	0.498	0.526	0.526	0.535	NA	0.500	NA	0.514	NA	0.469	NA	NA	NA	0.535	12.201	ok
55)	dibromochloromethane	NA	NA	0.236	0.242	0.254	0.289	0.317	0.348	NA	0.341	NA	0.361	NA	0.337	NA	NA	NA	0.303	16.103	#
56)	1,2-dibromoethane	NA	NA	0.297	0.297	0.286	0.306	0.311	0.324	NA	0.308	NA	0.318	NA	0.299	NA	NA	NA	0.305	3.811	ok
57) P	chlorobenzene	NA	NA	1.105	1.102	1.036	1.074	1.096	1.101	NA	1.019	NA	0.996	NA	0.866	NA	NA	NA	1.044	7.465	ok
58)	1,1,1,2-tetrachloroethane	NA	NA	0.305	0.303	0.302	0.336	0.351	0.364	NA	0.337	NA	0.307	NA	0.256	NA	NA	NA	0.318	10.272	ok
59) C	ethylbenzene	NA	NA	1.877	1.868	1.750	1.833	1.860	1.848	NA	1.647	NA	1.395	NA	NA	NA	NA	NA	1.760	9.477	ok
60)	mp-xylene	0.953	0.754	0.742	0.742	0.706	0.738	0.747	0.740	NA	0.640	NA	0.515	NA	NA	NA	NA	NA	0.728	14.899	ok
61)	o-xylene	NA	NA	0.700	0.721	0.669	0.713	0.725	0.734	NA	0.673	NA	0.638	NA	0.542	NA	NA	NA	0.679	8.882	ok
62)	styrene	NA	NA	1.115	1.151	1.109	1.184	1.221	1.232	NA	1.133	NA	1.049	NA	0.884	NA	NA	NA	1.120	9.404	ok
63) P	bromoform	NA	NA	0.122	0.122	0.132	0.159	0.183	0.214	NA	0.215	NA	0.232	NA	0.215	NA	NA	NA	0.177	24.884	#
64)	iso-propylbenzene	NA	NA	1.668	1.719	1.621	1.709	1.749	1.749	NA	1.590	NA	1.455	NA	1.218	NA	NA	NA	1.609	10.808	ok
65)	SS 4-BFB_MS	0.496	0.492	0.498	0.494	0.499	0.500	0.501	0.499	0.495	0.500	0.491	0.491	0.493	0.495	0.501	0.501	0.497	0.497	0.720	ok
66)	1,4-Dichlorobenzene-D4 IS																				
67)	bromobenzene	NA	NA	0.862	0.865	0.806	0.847	0.860	0.871	NA	0.821	NA	0.821	NA	0.750	NA	NA	NA	0.834	4.692	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
68) P	1,1,2,2-tetrachloroethane	NA	NA	0.652	0.664	0.627	0.661	0.693	0.711	NA	0.666	NA	0.686	NA	0.625	NA	NA	NA	0.665	4.303	ok
69)	1,2,3-trichloropropane	NA	NA	0.224	0.218	0.204	0.213	0.214	0.221	NA	0.207	NA	0.212	NA	0.197	NA	NA	NA	0.212	4.052	ok
70)	trans-1,4-dichloro-2-butene	NA	NA	0.096	0.100	0.100	0.118	0.136	0.151	NA	0.151	NA	0.162	NA	0.150	NA	NA	NA	0.129	20.297	#
71)	n-propylbenzene	NA	NA	4.020	4.143	3.881	4.006	4.112	4.062	NA	3.702	NA	3.288	NA	2.706	NA	NA	NA	3.769	12.728	ok
72)	2-chlorotoluene	NA	NA	2.526	2.563	2.390	2.437	2.480	2.440	NA	2.294	NA	2.095	NA	1.864	NA	NA	NA	2.343	9.720	ok
73)	4-chlorotoluene	NA	NA	2.569	2.586	2.424	2.490	2.528	2.503	NA	2.221	NA	2.086	NA	1.736	NA	NA	NA	2.349	12.101	ok
74)	1,3,5-trimethylbenzene	NA	NA	2.836	2.900	2.735	2.850	2.895	2.894	NA	2.646	NA	2.386	NA	2.001	NA	NA	NA	2.682	11.373	ok
75)	tert-butylbenzene	NA	NA	2.520	2.592	2.414	2.510	2.559	2.538	NA	2.315	NA	2.157	NA	1.820	NA	NA	NA	2.381	10.582	ok
76)	1,2,4-trimethylbenzene	NA	NA	2.926	2.958	2.833	2.944	2.981	2.964	NA	2.669	NA	2.366	NA	1.964	NA	NA	NA	2.734	12.853	ok
77)	sec-butylbenzene	NA	NA	3.526	3.629	3.399	3.547	3.614	3.615	NA	3.268	NA	2.861	NA	2.346	NA	NA	NA	3.312	13.205	ok
78)	1,3-dichlorobenzeneV	NA	NA	1.646	1.696	1.572	1.642	1.681	1.692	NA	1.570	NA	1.458	NA	1.245	NA	NA	NA	1.578	9.274	ok
79)	p-isopropyltoluene	NA	NA	2.949	3.015	2.895	3.052	3.140	3.122	NA	2.803	NA	2.453	NA	2.015	NA	NA	NA	2.827	13.062	ok
80)	1,4-dichlorobenzeneV	NA	NA	1.655	1.695	1.575	1.633	1.672	1.688	NA	1.566	NA	1.454	NA	1.230	NA	NA	NA	1.574	9.536	ok
81)	1,2-dichlorobenzeneV	NA	NA	1.538	1.582	1.463	1.517	1.554	1.575	NA	1.460	NA	1.371	NA	1.177	NA	NA	NA	1.471	8.788	ok
82)	n-butylbenzene	NA	NA	2.440	2.547	2.443	2.579	2.671	2.665	NA	2.409	NA	2.136	NA	1.748	NA	NA	NA	2.404	12.262	ok
83)	SS 1,2-DCB-d4_MS	1.004	0.999	1.000	0.993	1.002	0.992	1.002	1.000	1.003	1.011	1.001	0.995	0.997	0.979	0.991	1.000	1.002	0.998	0.699	ok
84)	1,2-dibromo-3-chloropropane	NA	NA	0.091	0.094	0.095	0.114	0.125	0.143	NA	0.142	NA	0.149	NA	0.143	NA	NA	NA	0.122	19.514	#
85)	1,3,5-trichlorobenzV	NA	NA	0.917	0.922	0.874	0.929	0.966	0.998	NA	0.955	NA	0.949	NA	0.850	NA	NA	NA	0.929	4.939	ok
86)	1,2,4-trichlorobenzV	NA	NA	0.740	0.763	0.721	0.786	0.808	0.852	NA	0.815	NA	0.828	NA	0.765	NA	NA	NA	0.786	5.470	ok
87)	hexachlorobutadieneV	0.453	0.336	0.325	0.334	0.308	0.335	0.351	0.365	NA	0.353	NA	0.371	NA	0.345	NA	NA	NA	0.352	10.764	ok
88)	naphthaleneV	NA	NA	1.784	1.830	1.828	2.015	2.094	2.226	NA	2.103	NA	2.089	NA	1.889	NA	NA	NA	1.984	7.844	ok
89)	1,2,3-trichlorobenzV	NA	NA	0.649	0.651	0.626	0.665	0.694	0.728	NA	0.698	NA	0.716	NA	0.675	NA	NA	NA	0.678	4.937	ok
90)	SS 2,5-DBT_MS	NA	NA	0.132	0.142	0.158	0.184	0.203	0.232	NA	0.230	NA	0.251	NA	0.250	NA	NA	NA	0.198	23.351	#

(#) = Out of Range

Compound List Report VOAMS5

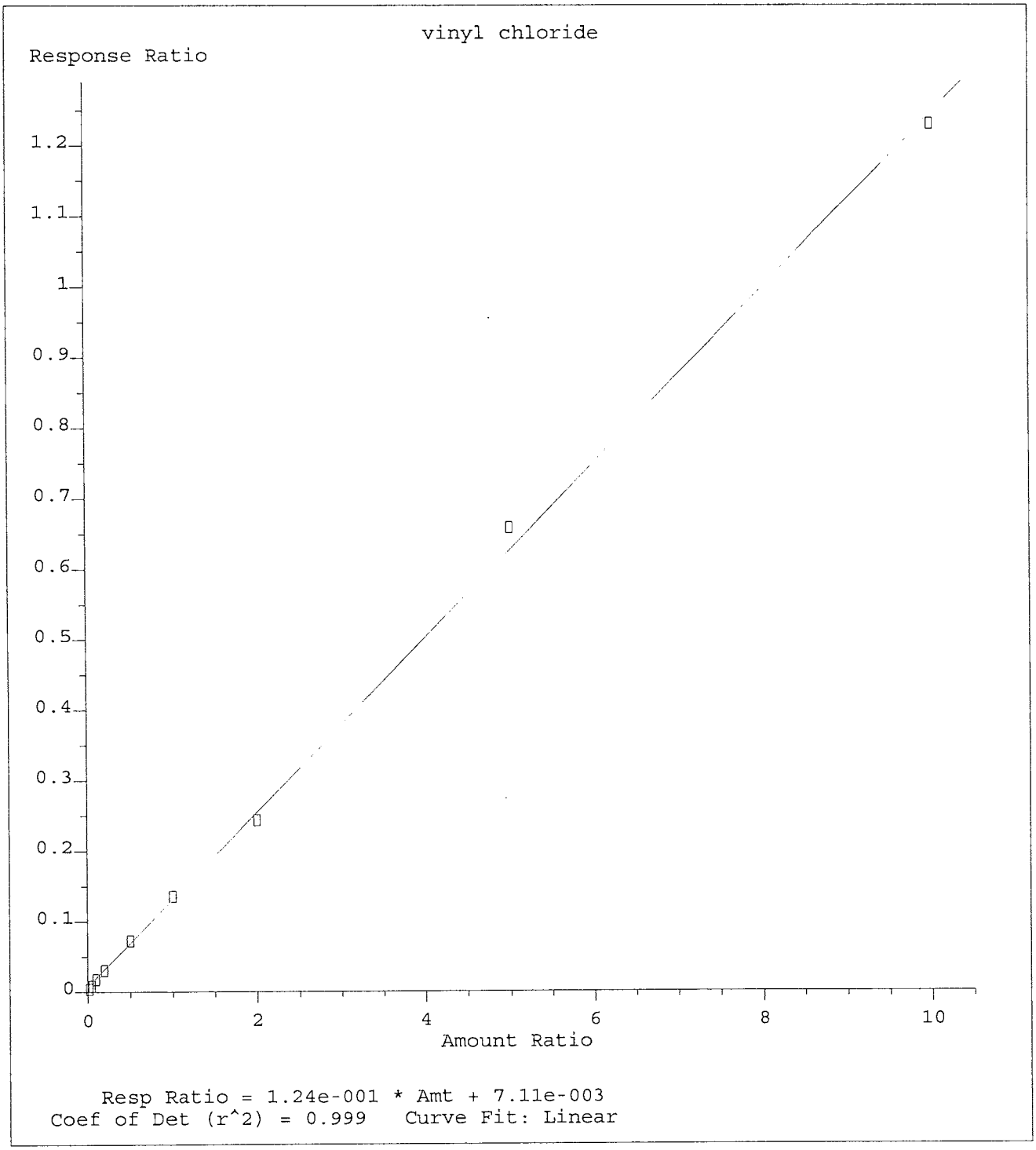
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
Total Cpnds : 90

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID	
1	I	Fluorobenzene IS	96	11.99	1.000	A	2	A	B	
2		dichlorodifluoromethane	85	2.84	0.237	A	2	A	B	
3	P	chloromethane	50	3.19	0.266	A	1	A	B	
4	C	vinyl chloride	62	3.33	0.277	L	1	A	B	
5		bromomethane	94	3.98	0.331	A	2	A	B	
6		chloroethane	64	4.09	0.341	A	2	A	B	
7		trichlorofluoromethane	101	4.50	0.376	A	2	A	B	
8		diethyl ether	59	5.02	0.419	A	2	A	B	
9		1,1,2-Trichlorotrifluoroethane	101	5.26	0.438	A	2	A	B	
10		acrolein	56	5.27	0.439	A	1	A	B	
11		acetone	43	5.41	0.451	A	1	A	B	
12	CM	1,1-dichloroethene	96	5.60	0.467	A	3	A	B	
13		tert-Butyl Alcohol(TBA)	59	5.78	0.482	A	1	A	B	
14		Iodomethane	142	6.20	0.517	L	3	A	B	Nontarget
15		methylene chloride	84	6.54	0.546	A	2	A	B	
16		carbon disulfide	76	6.56	0.547	A	1	A	B	
17		acrylonitrile	53	6.83	0.569	A	2	A	B	
18		Methyl-t-butyl ether(MTBE)	73	6.87	0.572	A	3	A	B	
19		trans-1,2-dichloroethene	96	7.14	0.595	A	3	A	B	
20		hexane	57	7.27	0.606	A	3	A	B	
21		Isopropyl ether(DIPE)	45	7.83	0.652	A	3	A	B	
22		vinyl acetate	43	8.06	0.672	A	1	A	B	
23	P	1,1-dichloroethane	63	8.04	0.670	A	2	A	B	
24		Ethyl-t-butyl ether(ETBE)	59	8.70	0.725	A	3	A	B	
25		2,2-dichloropropane	77	9.25	0.771	A	3	A	B	
26		cis-1,2-dichloroethene	61	9.36	0.780	A	3	A	B	
27		2-butanone(MEK)	43	8.98	0.749	A	2	A	B	
28		bromochloromethane	128	10.08	0.840	A	3	A	B	
29		Tetrahydrofuran(THF)	42	10.16	0.847	A	2	A	B	
30	C	chloroform	83	9.71	0.810	A	2	A	B	
31	S	SS Dibromofluoromethane_MS	111	10.20	0.850	A	2	A	B	
32		1,1,1-trichloroethane	97	10.59	0.883	A	3	A	B	
33		carbon tetrachloride	117	11.17	0.931	A	3	A	B	
34		1,1-dichloropropene	75	10.97	0.914	A	3	A	B	
35	S	SS 1,2-DCA-d4_MS	65	11.33	0.945	A	2	A	B	
36		tert-amyl methyl ether(TAME)	73	11.25	0.938	A	3	A	B	
37	M	benzene	78	11.56	0.964	A	3	A	B	
38		1,2-dichloroethane	62	11.54	0.962	A	2	A	B	
39	M	trichloroethene	95	12.74	1.062	A	3	A	B	
40	C	1,2-dichloropropane	63	13.05	1.088	A	3	A	B	
41		1,4-dioxaneV	88	13.51	1.126	A	2	A	B	
42		dibromomethane	93	13.53	1.128	A	3	A	B	
43		bromodichloromethane	83	13.44	1.121	A	3	A	B	
44		2-Chloroethoxyethene	63	13.95	1.163	Q	3	A	B	Nontarget
45		4-methyl-2-pentanone(MIBK)	58	14.00	1.167	A	3	A	B	
46		cis-1,3-dichloropropene	75	14.31	1.193	A	3	A	B	
47	I	Chlorobenzene-D5 IS	117	16.70	1.000	A	2	A	B	
48	S	SS Toluene-d8_MS	98	14.66	0.878	A	2	A	B	
49	CM	toluene	91	14.78	0.885	A	3	A	B	
50		trans-1,3-dichloropropene	75	15.04	0.900	A	3	A	B	
51		1,1,2-trichloroethane	83	15.25	0.914	A	3	A	B	
52		2-hexanone	43	15.27	0.914	A	2	A	B	
53		tetrachloroethene	166	15.68	0.939	A	3	A	B	
54		1,3-dichloropropane	76	15.60	0.934	A	2	A	B	
55		dibromochloromethane	129	15.96	0.956	L	3	A	B	
56		1,2-dibromoethane	107	16.22	0.972	A	3	A	B	
57	PM	chlorobenzene	112	16.75	1.003	A	2	A	B	
58		1,1,1,2-tetrachloroethane	131	16.79	1.006	A	3	A	B	
59	C	ethylbenzene	91	16.80	1.006	A	3	A	B	
60		mp-xylene	106	16.90	1.012	A	3	A	B	
61		o-xylene	106	17.43	1.044	A	3	A	B	
62		styrene	104	17.47	1.046	A	3	A	B	
63	P	bromoform	173	17.90	1.072	L	3	A	B	
64		iso-propylbenzene	105	17.83	1.068	A	3	A	B	

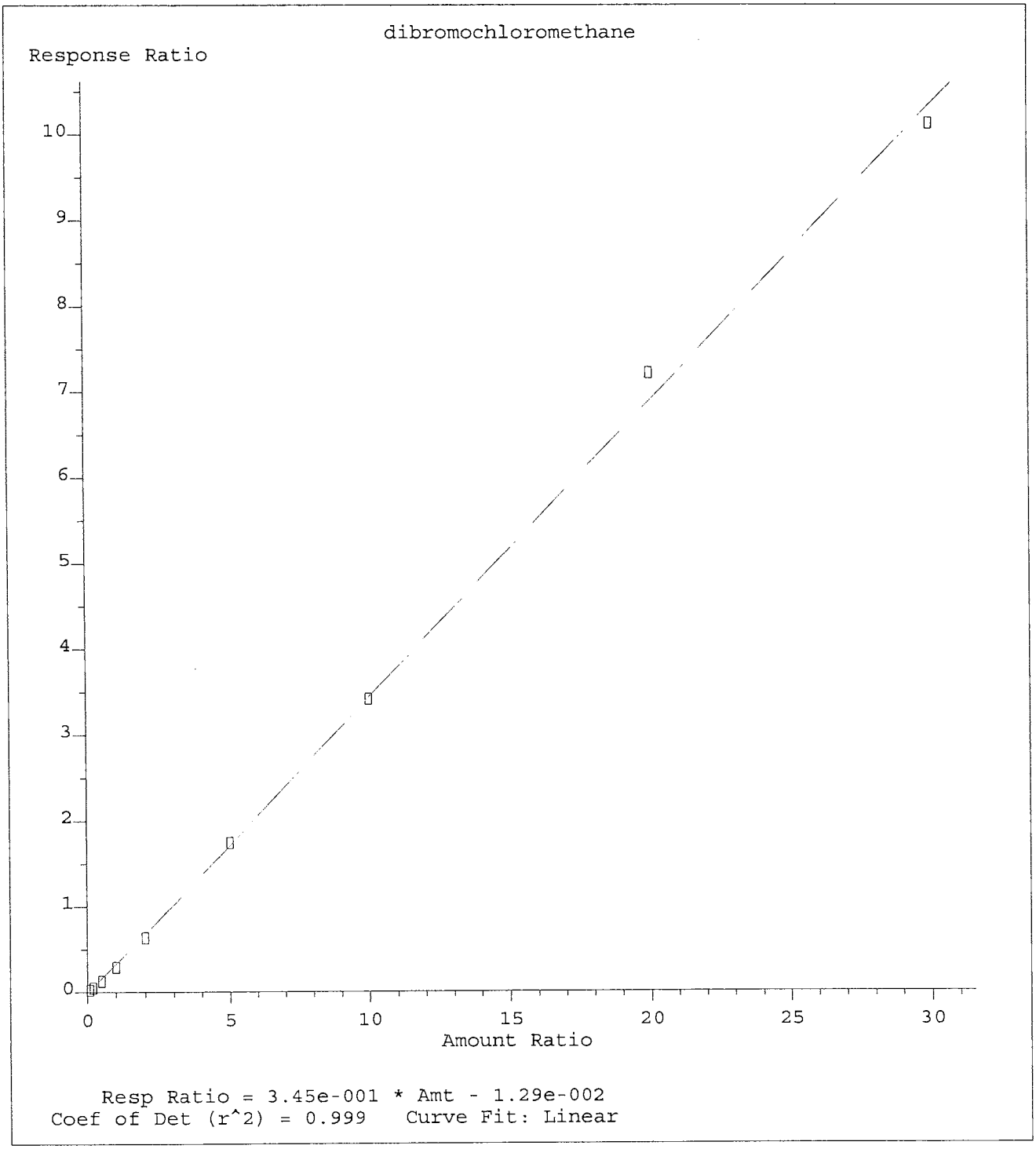
65	S	SS 4-BFB_MS	95	18.14	1.086	A	3	A	B	
66	I	1,4-Dichlorobenzene-D4 IS	152	19.39	1.000	A	3	A	B	
67		bromobenzene	156	18.38	0.948	A	3	A	B	
68	P	1,1,2,2-tetrachloroethane	83	18.04	0.930	A	3	A	B	
69		1,2,3-trichloropropane	110	18.21	0.939	A	3	A	B	
70		trans-1,4-dichloro-2-butene	75	18.28	0.943	L	3	A	B	Nontarget
71		n-propylbenzene	91	18.30	0.943	A	1	A	B	
72		2-chlorotoluene	91	18.52	0.955	A	2	A	B	
73		4-chlorotoluene	91	18.57	0.958	A	2	A	B	
74		1,3,5-trimethylbenzene	105	18.47	0.953	A	3	A	B	
75		tert-butylbenzene	119	18.86	0.972	A	3	A	B	
76		1,2,4-trimethylbenzene	105	18.90	0.975	A	3	A	B	
77		sec-butylbenzene	105	19.07	0.983	A	3	A	B	
78		1,3-dichlorobenzeneV	146	19.33	0.997	A	3	A	B	
79		p-isopropyltoluene	119	19.20	0.990	A	3	A	B	
80		1,4-dichlorobenzeneV	146	19.43	1.002	A	3	A	B	
81		1,2-dichlorobenzeneV	146	19.79	1.020	A	3	A	B	
82		n-butylbenzene	91	19.59	1.010	A	3	A	B	
83	S	SS 1,2-DCB-d4_MS	152	19.76	1.019	A	3	A	B	
84		1,2-dibromo-3-chloropropane	157	20.52	1.058	L	3	A	B	
85		1,3,5-trichlorobenzV	180	20.75	1.070	A	3	A	B	
86		1,2,4-trichlorobenzV	180	21.45	1.106	A	3	A	B	
87		hexachlorobutadieneV	225	21.57	1.113	A	3	A	B	
88		naphthaleneV	128	21.78	1.123	A	3	A	B	
89		1,2,3-trichlorobenzV	180	22.06	1.138	A	3	A	B	
90	S	SS 2,5-DBT_MS	250	23.37	1.205	L	3	A	B	Nontarget

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

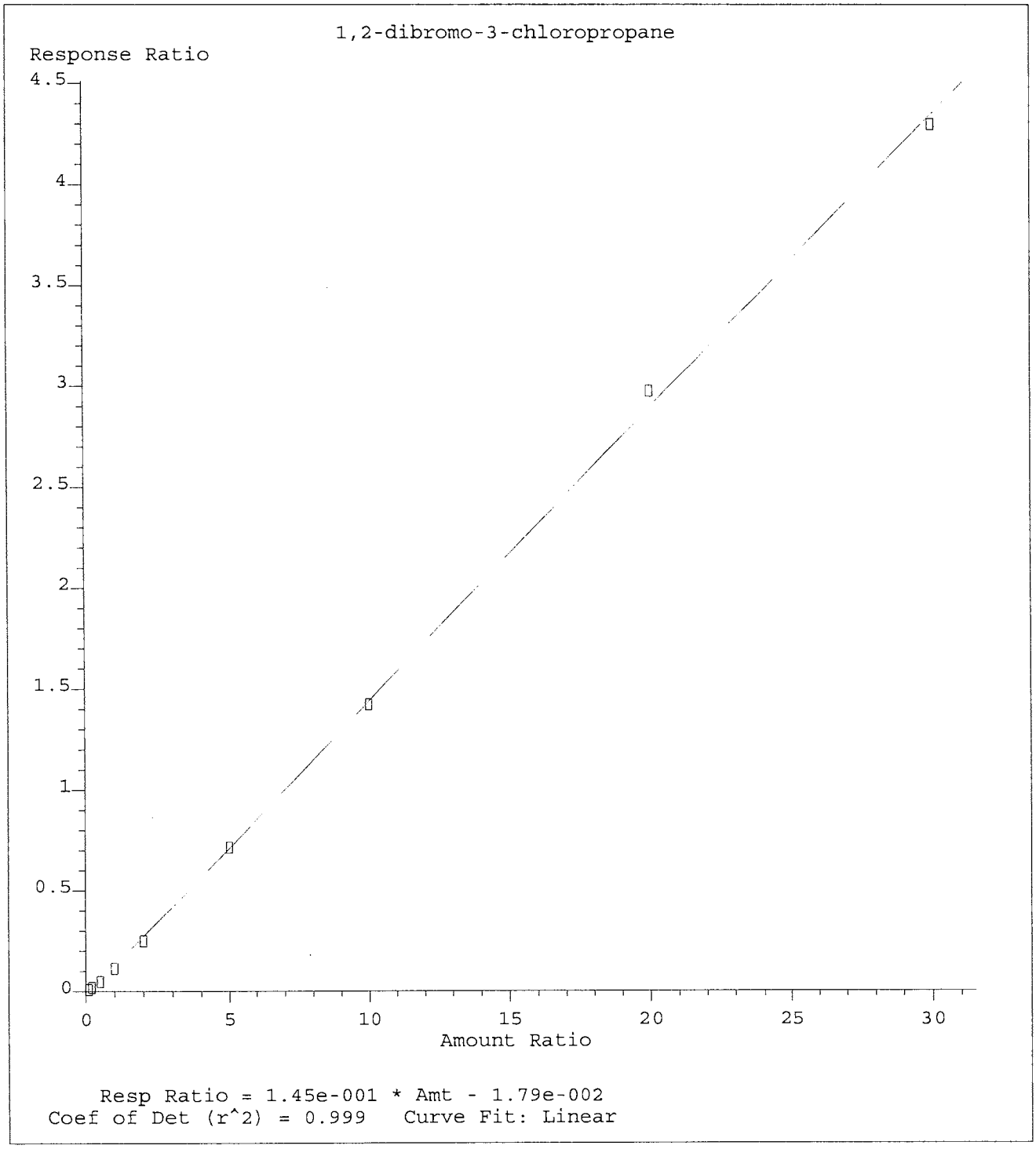
5VID0819.M Fri Aug 23 12:50:23 2013



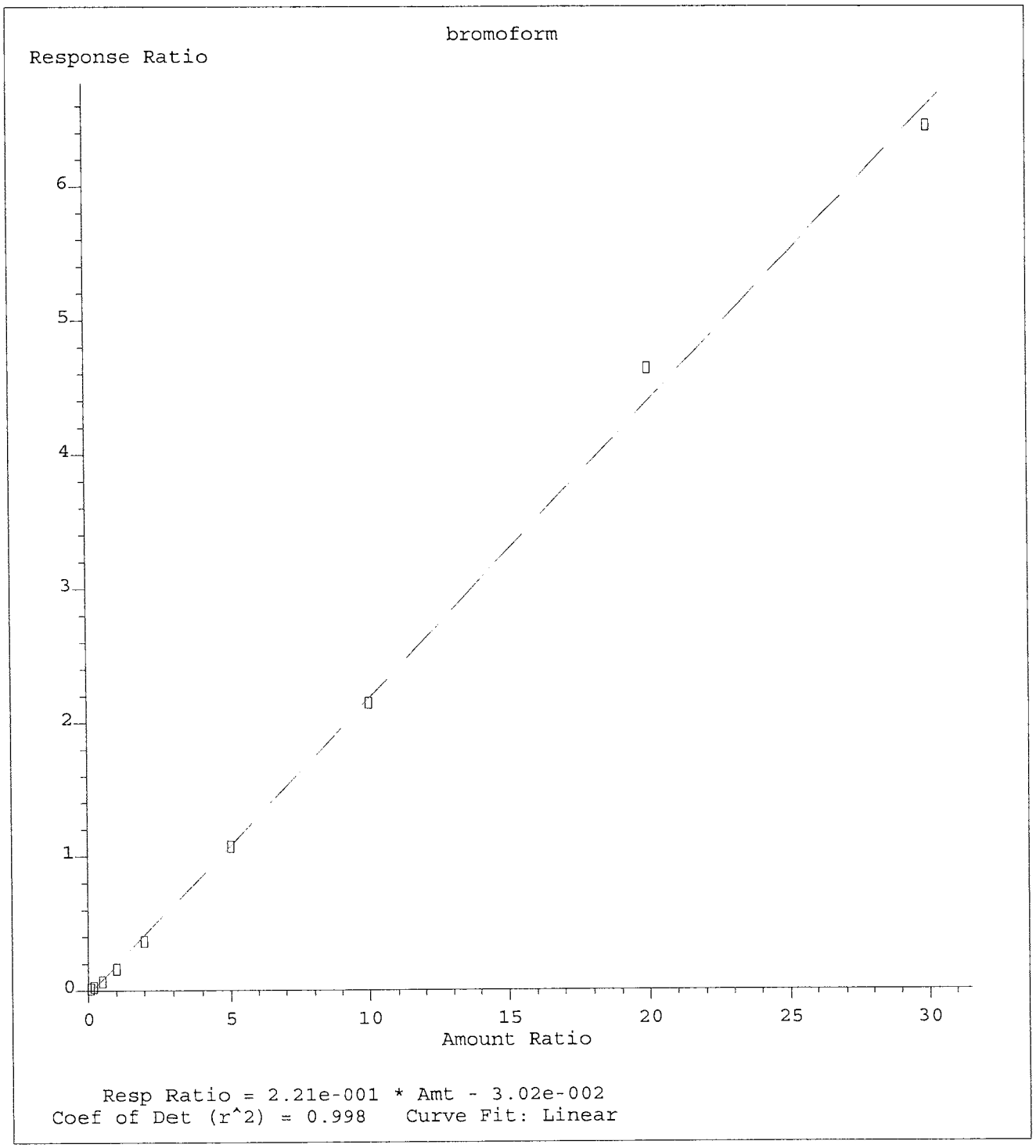
Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

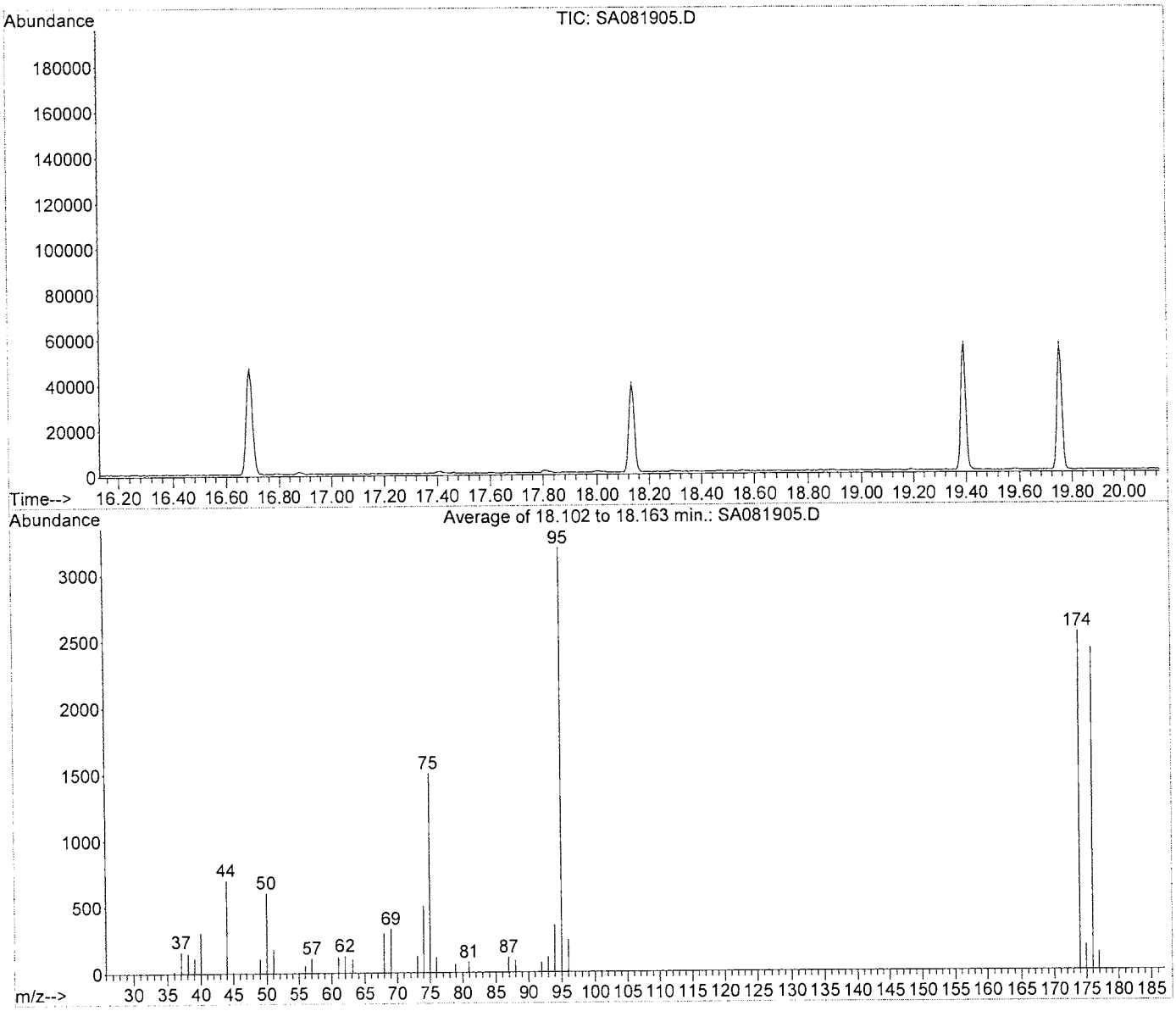


Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081905.D Vial: 5
Acq On : 19 Aug 2013 10:44 am Operator: BAM
Sample : BFB 25 MG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



Spectrum Information: Average of 18.102 to 18.163 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	605	PASS
75	95	30	60	47.1	1503	PASS
95	95	100	100	100.0	3194	PASS
96	95	5	9	7.7	245	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	2543	PASS
175	174	5	9	7.4	188	PASS
176	174	95	101	95.1	2418	PASS
177	176	5	9	5.6	135	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 12:13:37 2013 Quant Results File: 5LID0813.RES

Quant Method : C:\MSDCHEM\1...\5LID0813.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

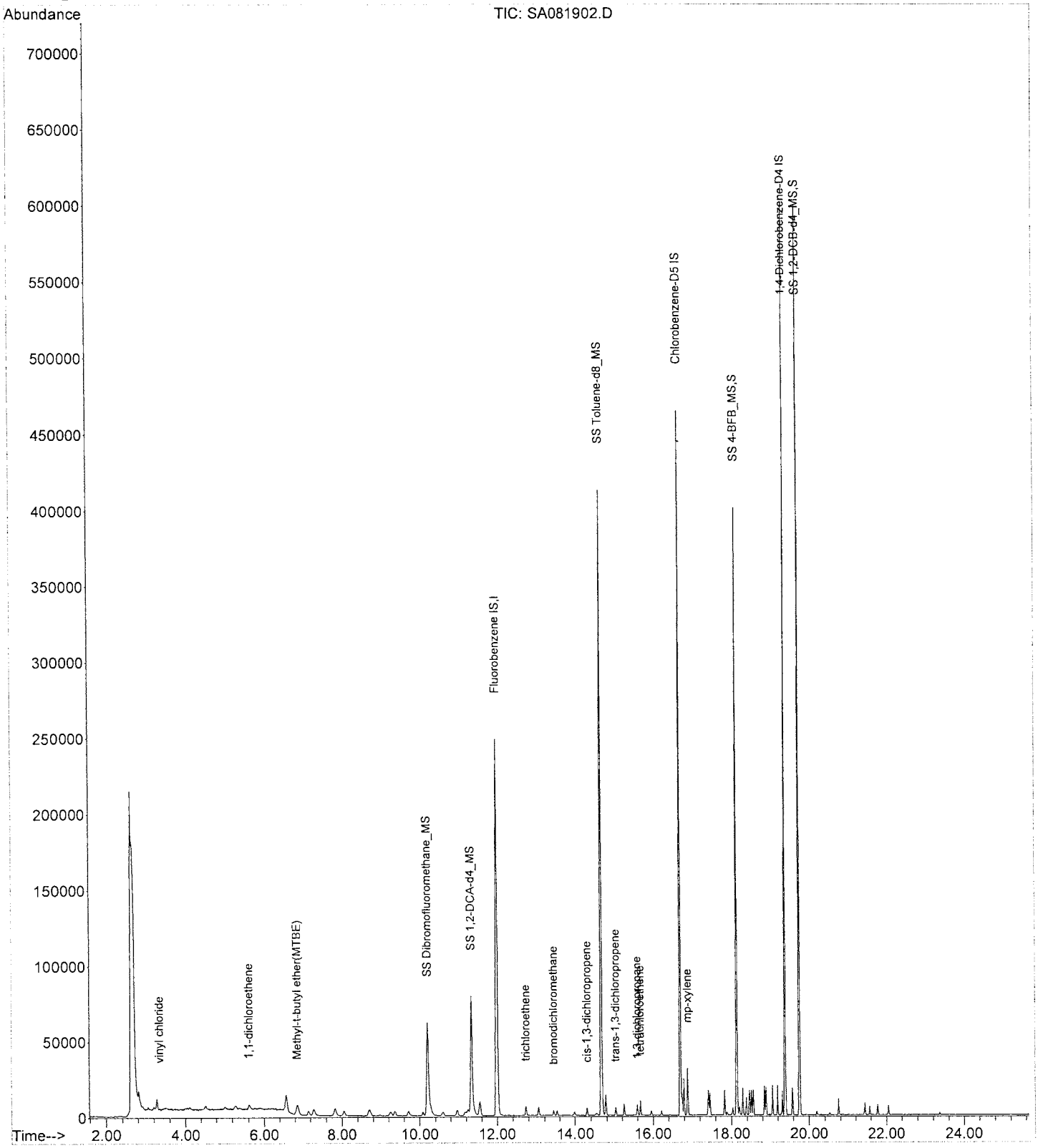
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329584	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	125297	10.51	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.10%			
78) SS 1,2-DCB-d4_MS	19.75	152	131904	9.23	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.33%			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	1326	0.353	ug/L	94
11) 1,1-dichloroethene	5.61	96	2165	0.310	ug/L	93
16) Methyl-t-butyl ether(MTBE)	6.85	73	11802	0.703	ug/L	95
29) SS Dibromofluoromethane_MS	10.20	111	76497	9.528	ug/L #	94
33) SS 1,2-DCA-d4_MS	11.34	65	95920	11.496	ug/L #	94
37) trichloroethene	12.74	95	2509	0.276	ug/L #	93
40) bromodichloromethane	13.44	83	2656	0.271	ug/L #	93
42) cis-1,3-dichloropropene	14.30	75	3030	0.305	ug/L #	77
43) Chlorobenzene-D5 IS	16.69	117	252752	9.805	ug/L #	91
44) SS Toluene-d8_MS	14.65	98	325692	10.105	ug/L #	96
46) trans-1,3-dichloropropene	15.03	75	2763	0.305	ug/L #	75
49) tetrachloroethene	15.67	166	2685	0.235	ug/L #	87
50) 1,3-dichloropropane	15.59	76	3650	0.285	ug/L #	69
56) mp-xylene	16.89	106	9632	0.529	ug/L #	91
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	131322	9.191	ug/L #	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081902.D 5VID0819.M Fri Aug 23 12:55:33 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:38 2013 Quant Results File: 5LID0813.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:39:16 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

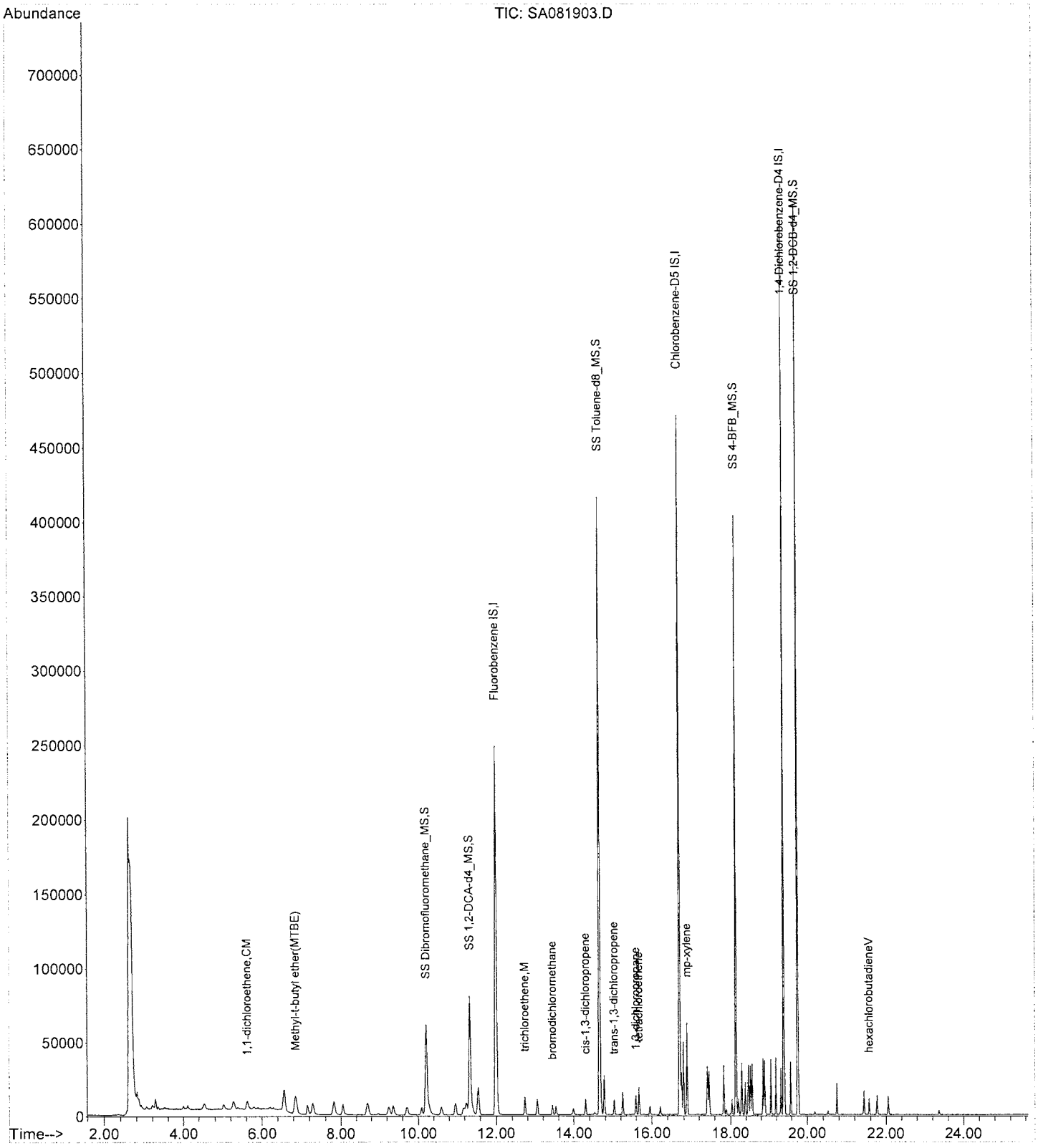
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329809	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	258269	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133996	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	77167	12.17 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.69%#		
35) SS 1,2-DCA-d4_MS	11.33	65	96496	13.01 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.14%#		
48) SS Toluene-d8_MS	14.66	98	328246	12.90 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.04%#		
65) SS 4-BFB_MS	18.13	95	127157	13.22 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.15%#		
83) SS 1,2-DCB-d4_MS	19.75	152	133798	12.67 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.74%#		
90) SS 2,5-DBT_MS	0.00	250	0d	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
4) vinyl chloride	3.34	62	2669	Below Cal	100
12) 1,1-dichloroethene	5.62	96	4286	0.585 ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.86	73	23890	1.478 ug/L #	93
39) trichloroethene	12.73	95	5229	0.667 ug/L	97
43) bromodichloromethane	13.44	83	5080	0.560 ug/L	96
46) cis-1,3-dichloropropene	14.30	75	6172	2.198 ug/L #	91
50) trans-1,3-dichloropropene	15.03	75	5318	1.795 ug/L #	90
53) tetrachloroethene	15.67	166	5406	0.608 ug/L	98
54) 1,3-dichloropropane	15.60	76	6873	0.608 ug/L #	82
60) mp-xylene	16.89	106	19484	1.300 ug/L	97
87) hexachlorobutadieneV	21.56	225	2252	0.579 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331046	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	256587	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135437	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78237	12.29	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.92%#			
35) SS 1,2-DCA-d4_MS	11.33	65	97737	13.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 131.32%#			
48) SS Toluene-d8_MS	14.65	98	328729	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.07%#			
65) SS 4-BFB_MS	18.13	95	127655	13.35	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	135388	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.88%#			
90) SS 2,5-DBT_MS	23.36	250	1783	6.00	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 15.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	12564	1.393	ug/L	98
3) chloromethane	3.19	50	11863	1.272	ug/L	100
4) vinyl chloride	3.34	62	5780	Below Cal		98
5) bromomethane	3.99	94	4980	0.936	ug/L	91
6) chloroethane	4.11	64	6898	1.230	ug/L	97
7) trichlorofluoromethane	4.52	101	14555	1.230	ug/L	98
8) diethyl ether	5.03	59	7616	1.328	ug/L	93
9) 1,1,2-Trichlorotrifluoroet	5.27	101	10431	1.490	ug/L #	87
10) acrolein	5.27	56	1636	2.405	ug/L #	70
11) acetone	5.39	43	3086	1.715	ug/L #	69
12) 1,1-dichloroethene	5.61	96	8518	1.159	ug/L	95
13) tert-Butyl Alcohol(TBA)	5.78	59	4046	8.003	ug/L #	81
15) methylene chloride	6.55	84	9698	1.177	ug/L	98
16) carbon disulfide	6.57	76	31835	1.499	ug/L #	94
17) acrylonitrile	6.82	53	4377	1.564	ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	50348	3.102	ug/L	94
19) trans-1,2-dichloroethene	7.15	96	8789	1.252	ug/L	96
20) hexane	7.29	57	15861	1.856	ug/L	94
21) Isopropyl ether(DIPE)	7.81	45	31465	1.457	ug/L	98
22) vinyl acetate	8.05	43	17655	1.502	ug/L	96
23) 1,1-dichloroethane	8.05	63	16758	1.290	ug/L #	95
24) Ethyl-t-butyl ether(ETBE)	8.70	59	27729	1.563	ug/L	98
25) 2,2-dichloropropane	9.24	77	11874	1.446	ug/L	99
26) cis-1,2-dichloroethene	9.36	61	12247	1.211	ug/L	95
27) 2-butanone(MEK)	8.98	43	4672	1.802	ug/L #	91
28) bromochloromethane	10.08	128	4642	1.212	ug/L	99
29) Tetrahydrofuran(THF)	10.18	42	3670	2.189	ug/L #	85
30) chloroform	9.71	83	16503	1.284	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	12866	1.269	ug/L	99
33) carbon tetrachloride	11.17	117	10403	1.147	ug/L	98
34) 1,1-dichloropropene	10.96	75	13340	1.339	ug/L	92
36) tert-amyl methyl ether(TAM	11.24	73	23753	5.976	ug/L #	89
37) benzene	11.55	78	38760	1.241	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

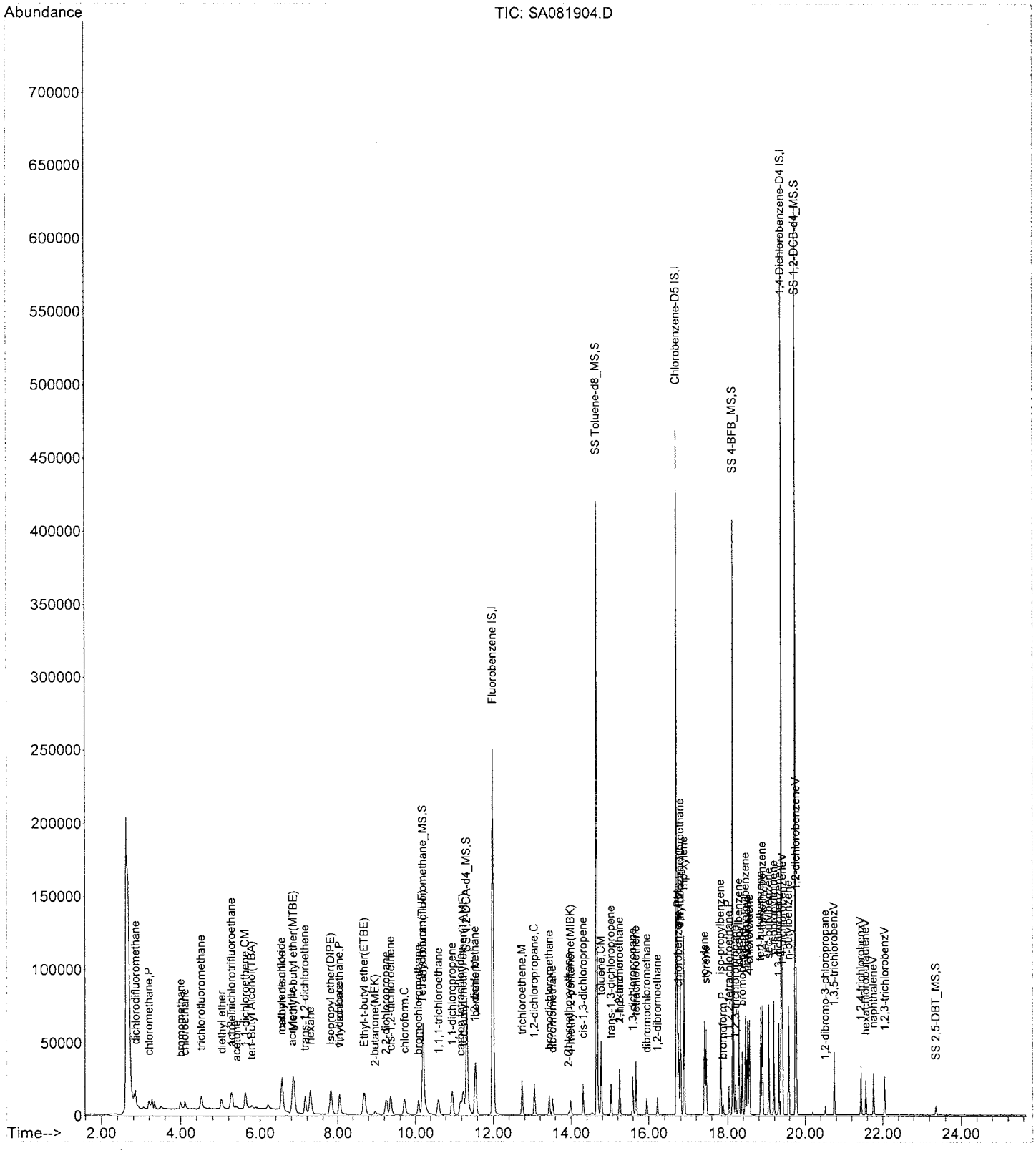
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	13328	1.301 ug/L	98
39)	trichloroethene	12.73	95	9969	1.267 ug/L	98
40)	1,2-dichloropropane	13.05	63	9198	1.196 ug/L	94
42)	dibromomethane	13.53	93	5241	1.148 ug/L	97
43)	bromodichloromethane	13.44	83	9783	1.075 ug/L	98
44)	2-Chloroethoxyethene	13.95	63	736	9.794 ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	3134	1.367 ug/L	92
46)	cis-1,3-dichloropropene	14.30	75	11883	2.652 ug/L	91
49)	toluene	14.77	91	42180	1.279 ug/L	99
50)	trans-1,3-dichloropropene	15.03	75	10719	2.286 ug/L	93
51)	1,1,2-trichloroethane	15.25	83	6360	1.216 ug/L	96
52)	2-hexanone	15.25	43	5641	1.570 ug/L	94
53)	tetrachloroethene	15.67	166	11126	1.259 ug/L	98
54)	1,3-dichloropropane	15.60	76	13608	1.212 ug/L	89
55)	dibromochloromethane	15.95	129	6051	3.054 ug/L #	97
56)	1,2-dibromoethane	16.22	107	7628	1.202 ug/L	100
57)	chlorobenzene	16.74	112	28347	1.243 ug/L	97
58)	1,1,1,2-tetrachloroethane	16.79	131	7835	1.106 ug/L #	74
59)	ethylbenzene	16.79	91	48153	1.313 ug/L	99
60)	mp-xylene	16.89	106	38052	2.556 ug/L	97
61)	o-xylene	17.41	106	17949	1.275 ug/L	96
62)	styrene	17.46	104	28616	1.203 ug/L	96
63)	bromoform	17.89	173	3143	3.473 ug/L	98
64)	iso-propylbenzene	17.83	105	42810	1.288 ug/L	98
67)	bromobenzene	18.38	156	11673	1.254 ug/L	96
68)	1,1,2,2-tetrachloroethane	18.04	83	8834	1.179 ug/L #	1
69)	1,2,3-trichloropropane	18.21	110	3033	1.292 ug/L	98
71)	n-propylbenzene	18.28	91	54448	1.315 ug/L	99
72)	2-chlorotoluene	18.51	91	34205	1.309 ug/L	99
73)	4-chlorotoluene	18.56	91	34795	1.322 ug/L	97
74)	1,3,5-trimethylbenzene	18.46	105	38409	1.318 ug/L	98
75)	tert-butylbenzene	18.84	119	34129	1.333 ug/L	96
76)	1,2,4-trimethylbenzene	18.89	105	39627	1.311 ug/L	99
77)	sec-butylbenzene	19.06	105	47759	1.318 ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	22296	1.275 ug/L	97
79)	p-isopropyltoluene	19.19	119	39947	1.301 ug/L	98
80)	1,4-dichlorobenzeneV	19.42	146	22414m	1.257 ug/L	
81)	1,2-dichlorobenzeneV	19.77	146	20836	1.258 ug/L #	33
82)	n-butylbenzene	19.58	91	33045	1.249 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	1237	3.871 ug/L	88
85)	1,3,5-trichlorobenzV	20.75	180	12414	1.234 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	10022	1.220 ug/L	97
87)	hexachlorobutadieneV	21.56	225	4402	1.120 ug/L	97
88)	naphthaleneV	21.76	128	24159	1.140 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	8796	1.237 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:18 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	319447	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249650	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	130715	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	75381	12.27 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.73%#		
35) SS 1,2-DCA-d4_MS	11.33	65	93786	13.06 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.58%#		
48) SS Toluene-d8_MS	14.65	98	318656	12.96 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.59%#		
65) SS 4-BFB_MS	18.13	95	123334	13.26 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.60%#		
83) SS 1,2-DCB-d4_MS	19.75	152	129791	12.60 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.03%#		
90) SS 2,5-DBT_MS	23.36	250	3717	6.74 ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 16.86%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	20603	2.368 ug/L	98
3) chloromethane	3.20	50	19547	2.173 ug/L	99
4) vinyl chloride	3.34	62	9660	Below Cal	99
5) bromomethane	4.00	94	8033	1.565 ug/L	94
6) chloroethane	4.12	64	11601	2.144 ug/L	97
7) trichlorofluoromethane	4.52	101	24102	2.111 ug/L	98
8) diethyl ether	5.02	59	12737	2.301 ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	17137	2.538 ug/L	99
10) acrolein	5.27	56	2139m	3.258 ug/L	
11) acetone	5.38	43	4673	2.692 ug/L	92
12) 1,1-dichloroethene	5.61	96	15933	2.247 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	7357	15.081 ug/L #	65
15) methylene chloride	6.55	84	19624	2.468 ug/L	99
16) carbon disulfide	6.57	76	51897	2.533 ug/L	96
17) acrylonitrile	6.82	53	7139	2.644 ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	88412	5.645 ug/L	95
19) trans-1,2-dichloroethene	7.15	96	17490	2.582 ug/L	97
20) hexane	7.28	57	26198	3.177 ug/L	95
21) Isopropyl ether(DIPE)	7.82	45	61129	2.933 ug/L	99
22) vinyl acetate	8.05	43	29146	2.570 ug/L	97
23) 1,1-dichloroethane	8.05	63	31798	2.536 ug/L #	98
24) Ethyl-t-butyl ether(ETBE)	8.70	59	53393	3.118 ug/L	97
25) 2,2-dichloropropane	9.25	77	23815	3.006 ug/L	98
26) cis-1,2-dichloroethene	9.36	61	25574	2.621 ug/L	99
27) 2-butanone(MEK)	8.96	43	7612	3.043 ug/L #	91
28) bromochloromethane	10.08	128	9132	2.470 ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	5556	3.434 ug/L	89
30) chloroform	9.71	83	31108	2.509 ug/L	99
32) 1,1,1-trichloroethane	10.60	97	25378	2.595 ug/L	98
33) carbon tetrachloride	11.17	117	19915	2.276 ug/L	98
34) 1,1-dichloropropene	10.97	75	25741	2.677 ug/L	95
36) tert-amyl methyl ether(TAM	11.24	73	45373	7.172 ug/L #	90
37) benzene	11.55	78	75148	2.493 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

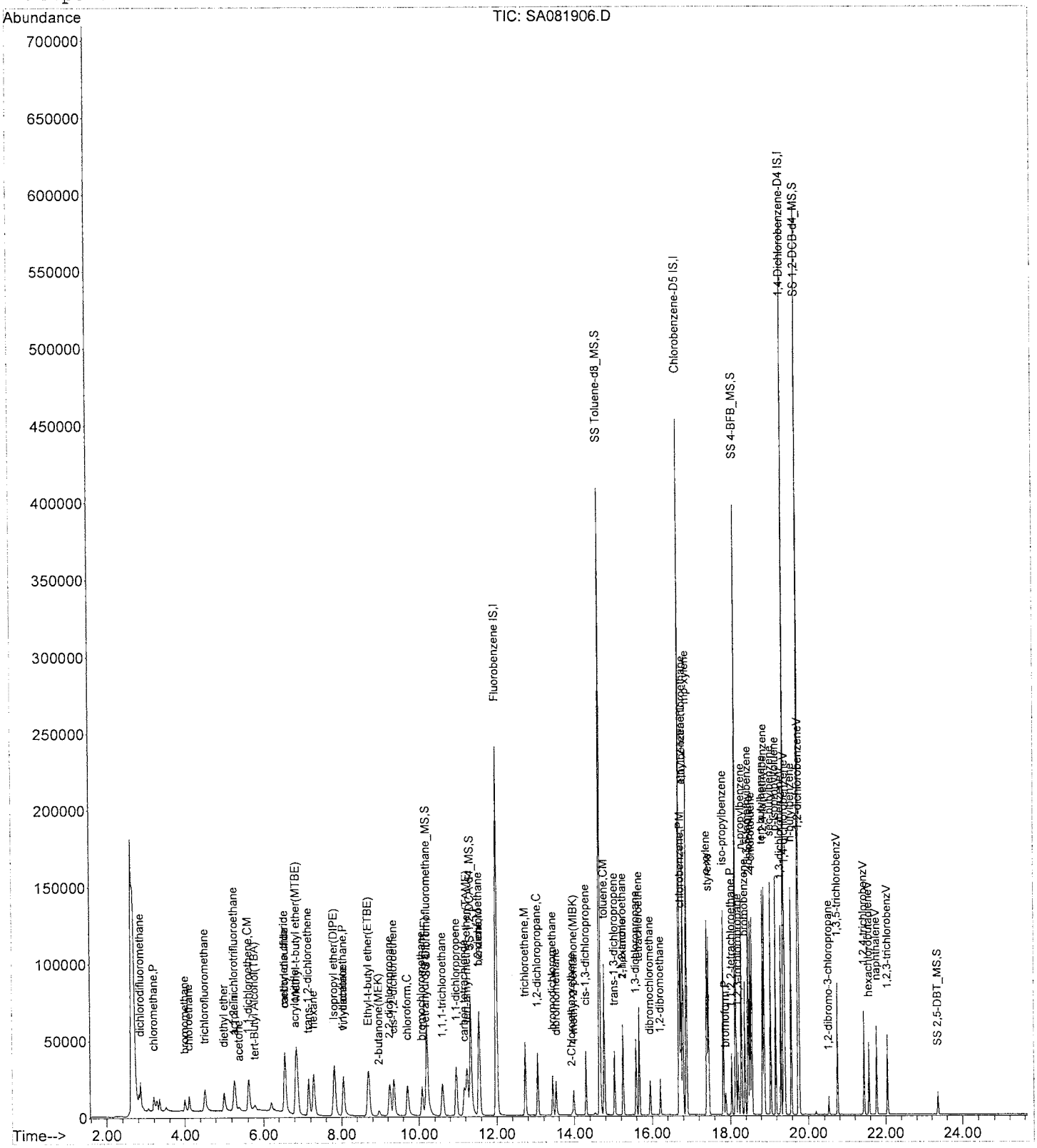
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	26250	2.655	ug/L		100
39)	trichloroethene	12.73	95	18813	2.477	ug/L		97
40)	1,2-dichloropropane	13.05	63	17934	2.416	ug/L		95
42)	dibromomethane	13.53	93	10335	2.346	ug/L		98
43)	bromodichloromethane	13.44	83	19293	2.198	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	860	9.946	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	5142	2.325	ug/L		93
46)	cis-1,3-dichloropropene	14.30	75	23435	3.643	ug/L		94
49)	toluene	14.77	91	81742	2.548	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	20701	3.240	ug/L		93
51)	1,1,2-trichloroethane	15.25	83	12172	2.392	ug/L		97
52)	2-hexanone	15.25	43	9113	2.606	ug/L		93
53)	tetrachloroethene	15.67	166	21366	2.484	ug/L		98
54)	1,3-dichloropropane	15.59	76	26443	2.420	ug/L		90
55)	dibromochloromethane	15.95	129	12078	3.862	ug/L	#	98
56)	1,2-dibromoethane	16.22	107	14844	2.404	ug/L		99
57)	chlorobenzene	16.74	112	55032	2.481	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	15120	2.194	ug/L		99
59)	ethylbenzene	16.79	91	93282	2.614	ug/L		99
60)	mp-xylene	16.89	106	74104	5.116	ug/L		96
61)	o-xylene	17.41	106	36012	2.630	ug/L		98
62)	styrene	17.46	104	57490	2.483	ug/L		98
63)	bromoform	17.88	173	6115	4.103	ug/L		96
64)	iso-propylbenzene	17.83	105	85828	2.654	ug/L		99
67)	bromobenzene	18.38	156	22626	2.518	ug/L		96
68)	1,1,2,2-tetrachloroethane	18.03	83	17355	2.399	ug/L	#	1
69)	1,2,3-trichloropropane	18.21	110	5701	2.516	ug/L		98
71)	n-propylbenzene	18.28	91	108302	2.710	ug/L		99
72)	2-chlorotoluene	18.51	91	67012	2.658	ug/L		98
73)	4-chlorotoluene	18.56	91	67613	2.663	ug/L		99
74)	1,3,5-trimethylbenzene	18.46	105	75808	2.696	ug/L		98
75)	tert-butylbenzene	18.84	119	67760	2.743	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	77341	2.652	ug/L		99
77)	sec-butylbenzene	19.06	105	94866	2.713	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	44339	2.627	ug/L		98
79)	p-isopropyltoluene	19.19	119	78820	2.660	ug/L		98
80)	1,4-dichlorobenzeneV	19.42	146	44318	2.575	ug/L		94
81)	1,2-dichlorobenzeneV	19.77	146	41371	2.588	ug/L	#	93
82)	n-butylbenzene	19.58	91	66590	2.608	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	2460	4.684	ug/L		94
85)	1,3,5-trichlorobenzV	20.75	180	24093	2.482	ug/L		96
86)	1,2,4-trichlorobenzV	21.44	180	19943	2.515	ug/L		96
87)	hexachlorobutadieneV	21.56	225	8743	2.305	ug/L		96
88)	naphthaleneV	21.76	128	47834	2.338	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	17026	2.482	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	320805	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	251289	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133403	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76274	12.37	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.66%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93843	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.11%#			
48) SS Toluene-d8_MS	14.65	98	317981	12.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.47%#			
65) SS 4-BFB_MS	18.13	95	125430	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.98%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133725	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	10510	9.19	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 22.98%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.86	85	52735	6.035	ug/L	98
3) chloromethane	3.19	50	48146	5.329	ug/L	99
4) vinyl chloride	3.34	62	23140	3.053	ug/L	98
5) bromomethane	4.00	94	20450	3.967	ug/L	99
6) chloroethane	4.12	64	29303	5.392	ug/L	98
7) trichlorofluoromethane	4.52	101	62572	5.458	ug/L	98
8) diethyl ether	5.02	59	32652	5.873	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.27	101	42573	6.277	ug/L	96
10) acrolein	5.27	56	4060	6.158	ug/L	94
11) acetone	5.38	43	10264	5.888	ug/L	99
12) 1,1-dichloroethene	5.61	96	36739	5.159	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	16528	33.736	ug/L #	80
15) methylene chloride	6.55	84	42886	5.371	ug/L	99
16) carbon disulfide	6.57	76	111777	5.432	ug/L	97
17) acrylonitrile	6.82	53	17825	6.573	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	216505	13.766	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	40969	6.023	ug/L	97
20) hexane	7.28	57	67117	8.104	ug/L	98
21) Isopropyl ether(DIPE)	7.82	45	143629	6.861	ug/L	98
22) vinyl acetate	8.06	43	72699	6.383	ug/L	98
23) 1,1-dichloroethane	8.05	63	75512	5.998	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	126117	7.334	ug/L	97
25) 2,2-dichloropropane	9.25	77	56793	7.138	ug/L	96
26) cis-1,2-dichloroethene	9.36	61	60826	6.209	ug/L	98
27) 2-butanone(MEK)	8.97	43	17834	7.100	ug/L	97
28) bromochloromethane	10.08	128	21282	5.733	ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	12622	7.768	ug/L	94
30) chloroform	9.71	83	72795	5.845	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	60406	6.150	ug/L	99
33) carbon tetrachloride	11.17	117	48262	5.492	ug/L	98
34) 1,1-dichloropropene	10.96	75	60041	6.218	ug/L	96
36) tert-amyl methyl ether(TAM	11.24	73	108618	10.516	ug/L #	90
37) benzene	11.56	78	176668	5.836	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

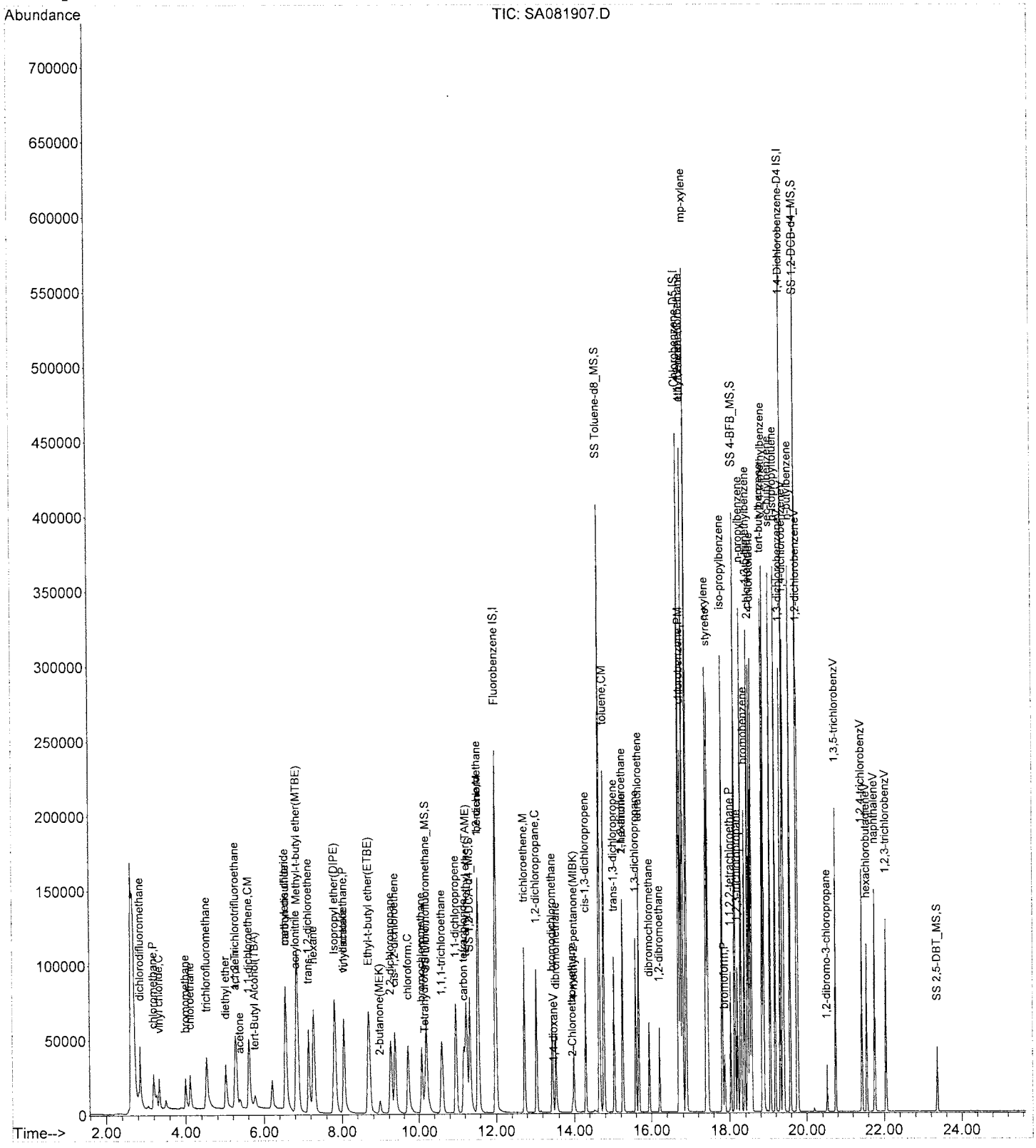
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	61309	6.175	ug/L		100
39)	trichloroethene	12.73	95	45171	5.922	ug/L		98
40)	1,2-dichloropropane	13.05	63	43515	5.838	ug/L		97
41)	1,4-dioxaneV	13.48	88	846m	13.546	ug/L		
42)	dibromomethane	13.53	93	24271	5.487	ug/L		97
43)	bromodichloromethane	13.44	83	47407	5.377	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	3104	12.179	ug/L	#	43
45)	4-methyl-2-pentanone(MIBK)	13.99	58	13485	6.071	ug/L		93
46)	cis-1,3-dichloropropene	14.30	75	58094	6.490	ug/L		94
49)	toluene	14.77	91	191504	5.931	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	52570	6.168	ug/L		95
51)	1,1,2-trichloroethane	15.25	83	29245	5.711	ug/L		98
52)	2-hexanone	15.25	43	24389	6.929	ug/L		95
53)	tetrachloroethene	15.67	166	50144	5.792	ug/L		98
54)	1,3-dichloropropane	15.60	76	62562	5.689	ug/L		93
55)	dibromochloromethane	15.95	129	31928	6.426	ug/L	#	99
56)	1,2-dibromoethane	16.22	107	35917	5.778	ug/L		100
57)	chlorobenzene	16.74	112	130184	5.831	ug/L		98
58)	1,1,1,2-tetrachloroethane	16.79	131	38004	5.480	ug/L		99
59)	ethylbenzene	16.79	91	219934	6.123	ug/L		99
60)	mp-xylene	16.89	106	177354	12.164	ug/L		98
61)	o-xylene	17.41	106	84117	6.102	ug/L		96
62)	styrene	17.46	104	139333	5.980	ug/L		98
63)	bromoform	17.89	173	16642	6.250	ug/L		97
64)	iso-propylbenzene	17.83	105	203714	6.259	ug/L		99
67)	bromobenzene	18.38	156	53742	5.860	ug/L		96
68)	1,1,2,2-tetrachloroethane	18.03	83	41833	5.666	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	13604	5.884	ug/L		99
71)	n-propylbenzene	18.28	91	258877	6.348	ug/L		99
72)	2-chlorotoluene	18.51	91	159436	6.196	ug/L		98
73)	4-chlorotoluene	18.56	91	161678	6.239	ug/L		98
74)	1,3,5-trimethylbenzene	18.46	105	182407	6.355	ug/L		99
75)	tert-butylbenzene	18.84	119	161039	6.387	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	188944	6.348	ug/L		99
77)	sec-butylbenzene	19.06	105	226722	6.354	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	104856	6.088	ug/L		98
79)	p-isopropyltoluene	19.19	119	193097	6.385	ug/L		98
80)	1,4-dichlorobenzeneV	19.42	146	105039	5.981	ug/L		97
81)	1,2-dichlorobenzeneV	19.78	146	97597	5.983	ug/L	#	88
82)	n-butylbenzene	19.58	91	162983	6.256	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	6339	7.094	ug/L		93
85)	1,3,5-trichlorobenzV	20.75	180	58265	5.880	ug/L		96
86)	1,2,4-trichlorobenzV	21.44	180	48079	5.941	ug/L		97
87)	hexachlorobutadieneV	21.56	225	20536	5.305	ug/L		94
88)	naphthaleneV	21.76	128	121958	5.842	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	41777	5.967	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329680	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	257906	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139765	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78654	12.41	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.09%#			
35) SS 1,2-DCA-d4_MS	11.33	65	95691	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
48) SS Toluene-d8_MS	14.65	98	327525	12.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.94%#			
65) SS 4-BFB_MS	18.13	95	128857	13.41	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.11%#			
83) SS 1,2-DCB-d4_MS	19.75	152	138658	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
90) SS 2,5-DBT_MS	23.36	250	25727	14.32	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 35.79%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	103983	11.580	ug/L	99
3) chloromethane	3.19	50	91726	9.879	ug/L	100
4) vinyl chloride	3.34	62	44632	8.999	ug/L	100
5) bromomethane	3.99	94	45838	8.653	ug/L	99
6) chloroethane	4.11	64	57305	10.260	ug/L	98
7) trichlorofluoromethane	4.52	101	123630	10.494	ug/L	99
8) diethyl ether	5.02	59	64977	11.374	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	84181	12.078	ug/L	96
10) acrolein	5.27	56	7273	10.735	ug/L	96
11) acetone	5.39	43	20604	11.501	ug/L	98
12) 1,1-dichloroethene	5.61	96	78878	10.778	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	34099	67.728	ug/L #	82
15) methylene chloride	6.55	84	87611	10.676	ug/L	100
16) carbon disulfide	6.57	76	233920	11.062	ug/L	100
17) acrylonitrile	6.82	53	36171	12.980	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	451396	27.928	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	87734	12.551	ug/L	98
20) hexane	7.28	57	129654	15.233	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	305985	14.224	ug/L	98
22) vinyl acetate	8.05	43	142119	12.142	ug/L	98
23) 1,1-dichloroethane	8.05	63	162892	12.590	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	269357	15.242	ug/L	96
25) 2,2-dichloropropane	9.25	77	119382	14.601	ug/L	95
26) cis-1,2-dichloroethene	9.36	61	127369	12.651	ug/L	99
27) 2-butanone(MEK)	8.96	43	35397	13.713	ug/L	98
28) bromochloromethane	10.08	128	46322	12.141	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	24632	14.751	ug/L	96
30) chloroform	9.71	83	155938	12.185	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	129263	12.807	ug/L	98
33) carbon tetrachloride	11.17	117	108911	12.061	ug/L	99
34) 1,1-dichloropropene	10.96	75	127800	12.878	ug/L	97
36) tert-amyl methyl ether(TAM	11.24	73	232612	16.759	ug/L #	90
37) benzene	11.55	78	373237	11.998	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

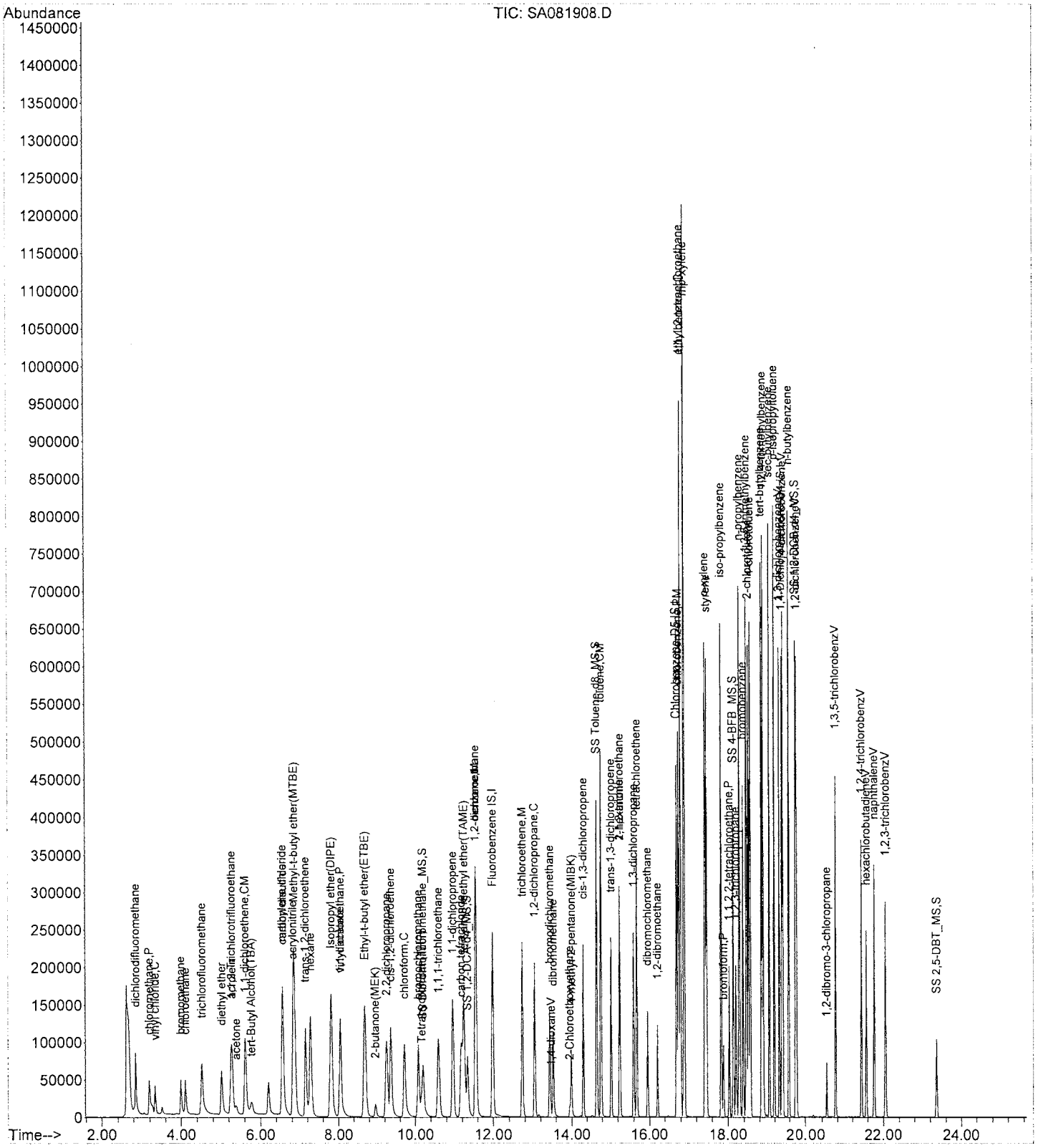
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	129205	12.664	ug/L		99
39)	trichloroethene	12.73	95	96961	12.370	ug/L		99
40)	1,2-dichloropropane	13.05	63	92382	12.060	ug/L		98
41)	1,4-dioxaneV	13.48	88	1968m	30.662	ug/L		
42)	dibromomethane	13.53	93	52221	11.488	ug/L		97
43)	bromodichloromethane	13.44	83	107082	11.819	ug/L		99
44)	2-Chloroethoxyethene	13.94	63	6324	15.143	ug/L	#	39
45)	4-methyl-2-pentanone(MIBK)	13.99	58	28342	12.415	ug/L		96
46)	cis-1,3-dichloropropene	14.30	75	129780	12.108	ug/L		95
49)	toluene	14.77	91	410451	12.385	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	120388	12.140	ug/L		97
51)	1,1,2-trichloroethane	15.25	83	63183	12.021	ug/L		98
52)	2-hexanone	15.25	43	49786	13.782	ug/L		98
53)	tetrachloroethene	15.67	166	106655	12.004	ug/L		98
54)	1,3-dichloropropane	15.60	76	135583	12.013	ug/L		94
55)	dibromochloromethane	15.95	129	74599	11.713	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	78816	12.354	ug/L		99
57)	chlorobenzene	16.74	112	277043	12.090	ug/L		97
58)	1,1,1,2-tetrachloroethane	16.79	131	86783	12.192	ug/L		99
59)	ethylbenzene	16.79	91	472657	12.821	ug/L		99
60)	mp-xylene	16.89	106	380544	25.430	ug/L		98
61)	o-xylene	17.41	106	183867	12.996	ug/L		98
62)	styrene	17.46	104	305435	12.772	ug/L		98
63)	bromoform	17.89	173	40886	10.998	ug/L		98
64)	iso-propylbenzene	17.83	105	440848	13.197	ug/L		99
67)	bromobenzene	18.38	156	118350	12.317	ug/L		97
68)	1,1,2,2-tetrachloroethane	18.04	83	92315	11.935	ug/L		99
69)	1,2,3-trichloropropane	18.21	110	29775	12.292	ug/L		99
71)	n-propylbenzene	18.28	91	559856	13.103	ug/L		99
72)	2-chlorotoluene	18.51	91	340614	12.635	ug/L		99
73)	4-chlorotoluene	18.56	91	348025	12.818	ug/L		99
74)	1,3,5-trimethylbenzene	18.46	105	398336	13.247	ug/L		99
75)	tert-butylbenzene	18.84	119	350839	13.281	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	411467	13.194	ug/L		99
77)	sec-butylbenzene	19.06	105	495753	13.260	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	229470	12.718	ug/L		99
79)	p-isopropyltoluene	19.19	119	426581	13.464	ug/L		99
80)	1,4-dichlorobenzeneV	19.42	146	228211	12.402	ug/L		96
81)	1,2-dichlorobenzeneV	19.78	146	212093	12.409	ug/L	#	95
82)	n-butylbenzene	19.58	91	360458	13.205	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	15958	12.693	ug/L		96
85)	1,3,5-trichlorobenzV	20.75	180	129782	12.502	ug/L		97
86)	1,2,4-trichlorobenzV	21.44	180	109868	12.958	ug/L		98
87)	hexachlorobutadieneV	21.56	225	46830	11.546	ug/L		98
88)	naphthaleneV	21.76	128	281673	12.878	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	92922	12.667	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331394	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	262215	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	141362	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79273	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.42%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93143	12.50	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.01%#			
48) SS Toluene-d8_MS	14.66	98	333434	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
65) SS 4-BFB_MS	18.13	95	131321	13.44	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.43%#			
83) SS 1,2-DCB-d4_MS	19.75	152	141700	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	57521	25.16	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 62.90%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	194683	21.569	ug/L	99
3) chloromethane	3.19	50	172058	18.434	ug/L	100
4) vinyl chloride	3.34	62	80711	19.168	ug/L	99
5) bromomethane	3.99	94	93850	17.624	ug/L	99
6) chloroethane	4.11	64	109554	19.514	ug/L	99
7) trichlorofluoromethane	4.52	101	236579	19.977	ug/L	99
8) diethyl ether	5.02	59	124100	21.610	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162837	23.243	ug/L	96
10) acrolein	5.27	56	13820	20.293	ug/L	93
11) acetone	5.39	43	38187	21.205	ug/L	94
12) 1,1-dichloroethene	5.61	96	161233	21.917	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	68924	136.190	ug/L #	81
15) methylene chloride	6.55	84	176392	21.383	ug/L	99
16) carbon disulfide	6.57	76	481336	22.645	ug/L	98
17) acrylonitrile	6.81	53	68378	24.411	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	881551	54.260	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	180020	25.621	ug/L	98
20) hexane	7.28	57	259325	30.310	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	625967	28.948	ug/L	98
22) vinyl acetate	8.05	43	313110	26.613	ug/L	98
23) 1,1-dichloroethane	8.05	63	333509	25.643	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	547829	30.840	ug/L #	96
25) 2,2-dichloropropane	9.25	77	260109	31.648	ug/L	94
26) cis-1,2-dichloroethene	9.36	61	262646	25.952	ug/L	98
27) 2-butanone(MEK)	8.96	43	66318	25.559	ug/L	98
28) bromochloromethane	10.08	128	93545	24.392	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	46286	27.576	ug/L	95
30) chloroform	9.71	83	317565	24.686	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	268761	26.490	ug/L	98
33) carbon tetrachloride	11.17	117	231829	25.540	ug/L	99
34) 1,1-dichloropropene	10.96	75	264778	26.543	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	476650	29.225	ug/L #	89
37) benzene	11.55	78	762700	24.390	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

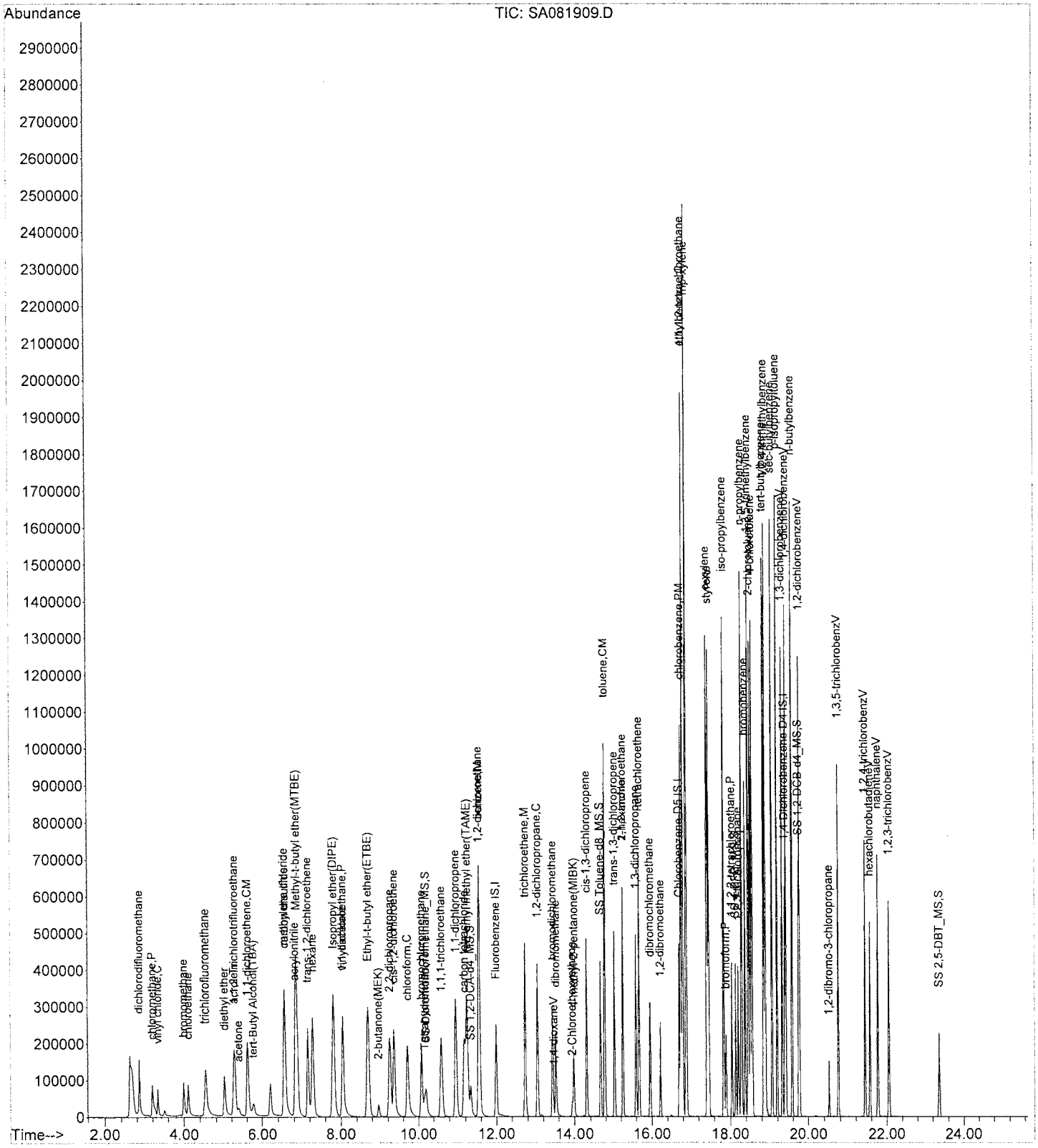
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	259670	25.320	ug/L		99
39)	trichloroethene	12.73	95	194776	24.721	ug/L		99
40)	1,2-dichloropropane	13.05	63	190971	24.800	ug/L		99
41)	1,4-dioxaneV	13.48	88	3928	60.883	ug/L	#	95
42)	dibromomethane	13.53	93	106873	23.390	ug/L		98
43)	bromodichloromethane	13.44	83	226478	24.868	ug/L		100
44)	2-Chloroethoxyethene	13.95	63	17614	25.124	ug/L		83
45)	4-methyl-2-pentanone(MIBK)	13.99	58	54532	23.765	ug/L		94
46)	cis-1,3-dichloropropene	14.30	75	277015	23.797	ug/L		97
49)	toluene	14.77	91	844209	25.055	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	261053	24.399	ug/L		98
51)	1,1,2-trichloroethane	15.25	83	128699	24.083	ug/L		98
52)	2-hexanone	15.25	43	95466	25.993	ug/L		98
53)	tetrachloroethene	15.67	166	219087	24.254	ug/L		98
54)	1,3-dichloropropane	15.60	76	275697	24.026	ug/L		95
55)	dibromochloromethane	15.95	129	166130	22.936	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	163336	25.182	ug/L		99
57)	chlorobenzene	16.74	112	574991	24.679	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	183999	25.425	ug/L		100
59)	ethylbenzene	16.79	91	975608	26.028	ug/L		99
60)	mp-xylene	16.89	106	783338	51.486	ug/L		98
61)	o-xylene	17.41	106	380027	26.420	ug/L		98
62)	styrene	17.46	104	640234	26.331	ug/L		99
63)	bromoform	17.89	173	95889	21.653	ug/L		99
64)	iso-propylbenzene	17.83	105	917040	27.000	ug/L		100
67)	bromobenzene	18.38	156	243213	25.026	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	195871	25.037	ug/L		100
69)	1,2,3-trichloropropane	18.21	110	60559	24.718	ug/L		99
71)	n-propylbenzene	18.28	91	1162564	26.902	ug/L		100
72)	2-chlorotoluene	18.51	91	701060	25.711	ug/L		99
73)	4-chlorotoluene	18.56	91	714685	26.025	ug/L		99
74)	1,3,5-trimethylbenzene	18.46	105	818531	26.913	ug/L		99
75)	tert-butylbenzene	18.84	119	723532	27.080	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	842876	26.723	ug/L		99
77)	sec-butylbenzene	19.06	105	1021831	27.023	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	475266	26.042	ug/L		100
79)	p-isopropyltoluene	19.19	119	887637	27.700	ug/L		99
80)	1,4-dichlorobenzeneV	19.42	146	472725	25.400	ug/L		99
81)	1,2-dichlorobenzeneV	19.78	146	439455	25.422	ug/L		99
82)	n-butylbenzene	19.58	91	755022	27.347	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	35245	24.044	ug/L		97
85)	1,3,5-trichlorobenzV	20.75	180	273191	26.019	ug/L		98
86)	1,2,4-trichlorobenzV	21.44	180	228467	26.642	ug/L		99
87)	hexachlorobutadieneV	21.56	225	99180	24.177	ug/L		97
88)	naphthaleneV	21.76	128	592008	26.760	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	196079	26.428	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335931	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266092	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145060	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80333	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.38%#			
35) SS 1,2-DCA-d4_MS	11.33	65	92083	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.65	98	334568	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.66%#			
65) SS 4-BFB_MS	18.13	95	132879	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.04%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145066	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.93%#			
90) SS 2,5-DBT_MS	23.36	250	168625	61.92	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 154.81%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	404367	54.224	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	179792	350.461	ug/L #	81
15) methylene chloride	6.55	84	437281	52.294	ug/L	98
16) carbon disulfide	6.57	76	1230241	57.097	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	461213	64.753	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	1609210	73.412	ug/L	97
23) 1,1-dichloroethane	8.04	63	845028	64.096	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	1416425	78.659	ug/L #	96
25) 2,2-dichloropropane	9.25	77	662748	79.549	ug/L	92
26) cis-1,2-dichloroethene	9.36	61	669164	65.227	ug/L	99
28) bromochloromethane	10.08	128	245669	63.194	ug/L	100
30) chloroform	9.71	83	811929	62.262	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	694283	67.508	ug/L	98
33) carbon tetrachloride	11.17	117	616174	66.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	674265	66.679	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	1249604	68.040	ug/L #	89
37) benzene	11.55	78	1949369	61.496	ug/L	99
38) 1,2-dichloroethane	11.54	62	655023	63.007	ug/L	99
39) trichloroethene	12.73	95	503338	63.021	ug/L	99
40) 1,2-dichloropropane	13.05	63	492015	63.032	ug/L	99
42) dibromomethane	13.53	93	281102	60.690	ug/L	97
43) bromodichloromethane	13.44	83	610134	66.090	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	735714	59.589	ug/L	98
49) toluene	14.77	91	2153729	62.989	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	705358	62.775	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	334663	61.713	ug/L	99
53) tetrachloroethene	15.67	166	568485	62.017	ug/L	97
54) 1,3-dichloropropane	15.60	76	712001	61.143	ug/L	96
55) dibromochloromethane	15.95	129	463357	59.045	ug/L #	99
56) 1,2-dibromoethane	16.22	107	430648	65.427	ug/L	100
57) chlorobenzene	16.74	112	1464220	61.931	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	484658	65.993	ug/L	99
59) ethylbenzene	16.79	91	2458719	64.641	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081910.D 5VID0819.M Fri Aug 23 12:53:34 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

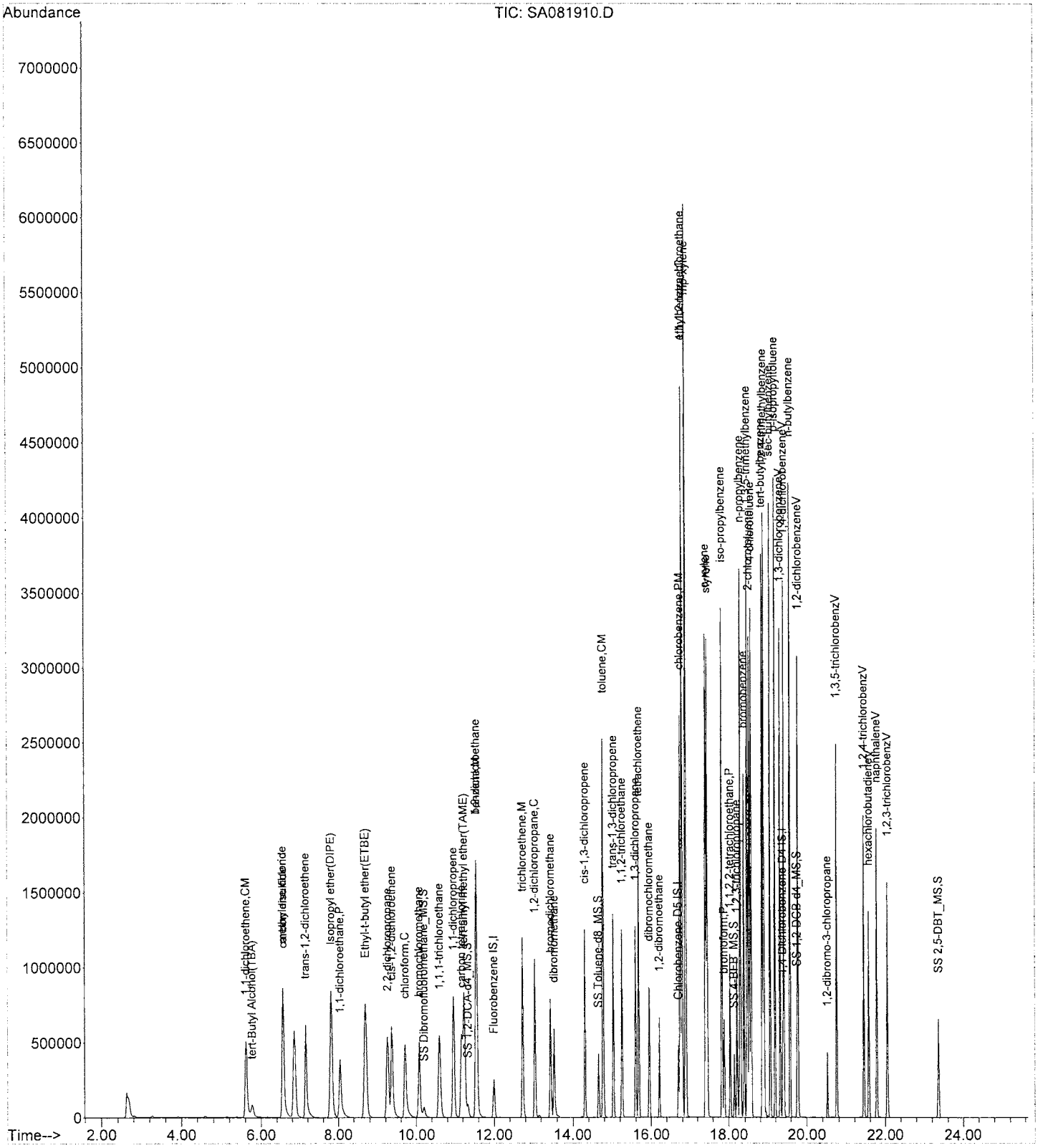
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	1969523	127.564	ug/L	99
61)	o-xylene	17.41	106	976890	66.924	ug/L	99
62)	styrene	17.46	104	1639183	66.433	ug/L	99
63)	bromoform	17.89	173	284834	57.904	ug/L	99
64)	iso-propylbenzene	17.83	105	2327255	67.523	ug/L	99
67)	bromobenzene	18.38	156	631462	63.320	ug/L	100
68)	1,1,2,2-tetrachloroethane	18.04	83	515825	64.253	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	160290	63.755	ug/L	98
71)	n-propylbenzene	18.29	91	2946454	66.444	ug/L	99
72)	2-chlorotoluene	18.51	91	1769997	63.260	ug/L	99
73)	4-chlorotoluene	18.56	91	1815730	64.434	ug/L	100
74)	1,3,5-trimethylbenzene	18.46	105	2098777	67.249	ug/L	100
75)	tert-butylbenzene	18.84	119	1841012	67.148	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	2149505	66.411	ug/L	99
77)	sec-butylbenzene	19.06	105	2621616	67.563	ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	1227456	65.545	ug/L	100
79)	p-isopropyltoluene	19.19	119	2264722	68.872	ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	1224592	64.122	ug/L	97
81)	1,2-dichlorobenzeneV	19.78	146	1142498	64.407	ug/L	97
82)	n-butylbenzene	19.58	91	1932849	68.224	ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	103649	63.117	ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	723845	67.184	ug/L	99
86)	1,2,4-trichlorobenzV	21.44	180	618016	70.231	ug/L	98
87)	hexachlorobutadieneV	21.56	225	264933	62.936	ug/L	98
88)	naphthaleneV	21.76	128	1614517	71.120	ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	527857	69.332	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:48 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:49:27 2013 Quant Results File: 5VID0819.RES

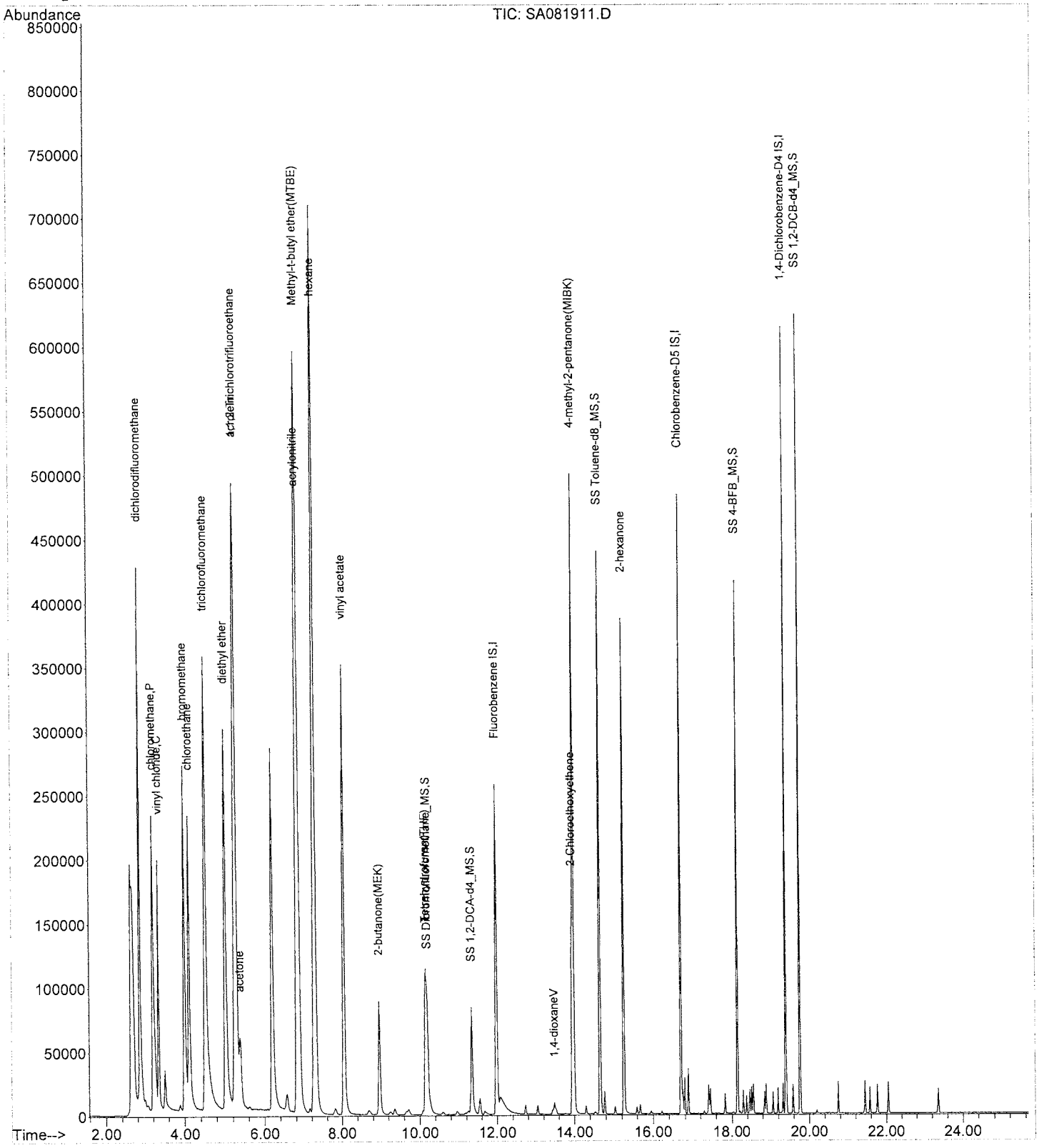
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	339880	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264197	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137469	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80106	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.58%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98674	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.13%#			
48) SS Toluene-d8_MS	14.65	98	339243	13.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.37%#			
65) SS 4-BFB_MS	18.13	95	130822	13.29	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.91%#			
83) SS 1,2-DCB-d4_MS	19.75	152	137890	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	536684	57.975	ug/L	99
3) chloromethane	3.19	50	467373	48.825	ug/L	100
4) vinyl chloride	3.34	62	223715	58.149	ug/L	99
5) bromomethane	3.99	94	285806	52.332	ug/L	99
6) chloroethane	4.11	64	305322	53.027	ug/L	98
7) trichlorofluoromethane	4.52	101	654087	53.854	ug/L	100
8) diethyl ether	5.02	59	339800	57.693	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	444771	61.901	ug/L	96
10) acrolein	5.27	56	34215	48.986	ug/L	99
11) acetone	5.39	43	102610	55.557	ug/L	94
17) acrylonitrile	6.82	53	179793	62.583	ug/L	92
18) Methyl-t-butyl ether(MTBE)	6.85	73	1170515	70.247	ug/L	96
20) hexane	7.28	57	714260	81.398	ug/L	99
22) vinyl acetate	8.05	43	882898	73.168	ug/L	98
27) 2-butanone(MEK)	8.96	43	186374	70.034	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	126802	73.659	ug/L	99
41) 1,4-dioxaneV	13.48	88	8590	129.819	ug/L #	73
44) 2-Chloroethoxyethene	13.95	63	69776	62.078	ug/L #	34
45) 4-methyl-2-pentanone(MIBK)	13.98	58	156553	66.521	ug/L	93
52) 2-hexanone	15.25	43	264972	71.605	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	353825	10.000	ug/L		0.00
47) Chlorobenzene-D5 IS	16.69	117	282298	10.000	ug/L		0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	152949	10.000	ug/L		0.00
System Monitoring Compounds							
31) SS Dibromofluoromethane_MS	10.20	111	85350	12.55	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.46%#				
35) SS 1,2-DCA-d4_MS	11.34	65	94152	11.84	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 118.36%				
48) SS Toluene-d8_MS	14.66	98	358167	12.88	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.82%#				
65) SS 4-BFB_MS	18.13	95	141281	13.43	ug/L		0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.33%#				
83) SS 1,2-DCB-d4_MS	19.75	152	154664	12.83	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.35%#				
90) SS 2,5-DBT_MS	23.36	250	352397	117.47	ug/L		0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 293.68%#				
Target Compounds							Qvalue
12) 1,1-dichloroethene	5.61	96	798847	101.704	ug/L		99
13) tert-Butyl Alcohol(TBA)	5.78	59	355261	657.474	ug/L	#	80
15) methylene chloride	6.55	84	850186	96.531	ug/L		98
16) carbon disulfide	6.57	76	2482263	109.378	ug/L		99
19) trans-1,2-dichloroethene	7.15	96	920269	122.670	ug/L		99
21) Isopropyl ether(DIPE)	7.81	45	3172223	137.398	ug/L		97
23) 1,1-dichloroethane	8.04	63	1684741	121.326	ug/L		99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	2805631	147.928	ug/L	#	96
25) 2,2-dichloropropane	9.24	77	1282370	146.138	ug/L		91
26) cis-1,2-dichloroethene	9.36	61	1322120	122.356	ug/L		100
28) bromochloromethane	10.08	128	491792	120.107	ug/L		99
30) chloroform	9.71	83	1615352	117.607	ug/L		100
32) 1,1,1-trichloroethane	10.59	97	1388303	128.163	ug/L		98
33) carbon tetrachloride	11.17	117	1249650	128.945	ug/L		100
34) 1,1-dichloropropene	10.96	75	1344519	126.238	ug/L		100
36) tert-amyl methyl ether(TAM	11.24	73	2507528	125.323	ug/L	#	89
37) benzene	11.56	78	3851284	115.350	ug/L		100
38) 1,2-dichloroethane	11.54	62	1269827	115.967	ug/L		99
39) trichloroethene	12.73	95	1012659	120.379	ug/L		99
40) 1,2-dichloropropane	13.05	63	981918	119.433	ug/L		98
42) dibromomethane	13.53	93	565072	115.829	ug/L		97
43) bromodichloromethane	13.44	83	1230530	126.551	ug/L		100
46) cis-1,3-dichloropropene	14.30	75	1482469	112.444	ug/L		99
49) toluene	14.77	91	4211772	116.108	ug/L		100
50) trans-1,3-dichloropropene	15.03	75	1416003	117.611	ug/L		99
51) 1,1,2-trichloroethane	15.25	83	670993	116.630	ug/L		99
53) tetrachloroethene	15.67	166	1142360	117.467	ug/L		96
54) 1,3-dichloropropane	15.60	76	1412274	114.317	ug/L		98
55) dibromochloromethane	15.95	129	962973	113.474	ug/L	#	100
56) 1,2-dibromoethane	16.22	107	868314	124.347	ug/L		99
57) chlorobenzene	16.74	112	2877344	114.714	ug/L		99
58) 1,1,1,2-tetrachloroethane	16.79	131	950257	121.963	ug/L		99
59) ethylbenzene	16.79	91	4650465	115.244	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

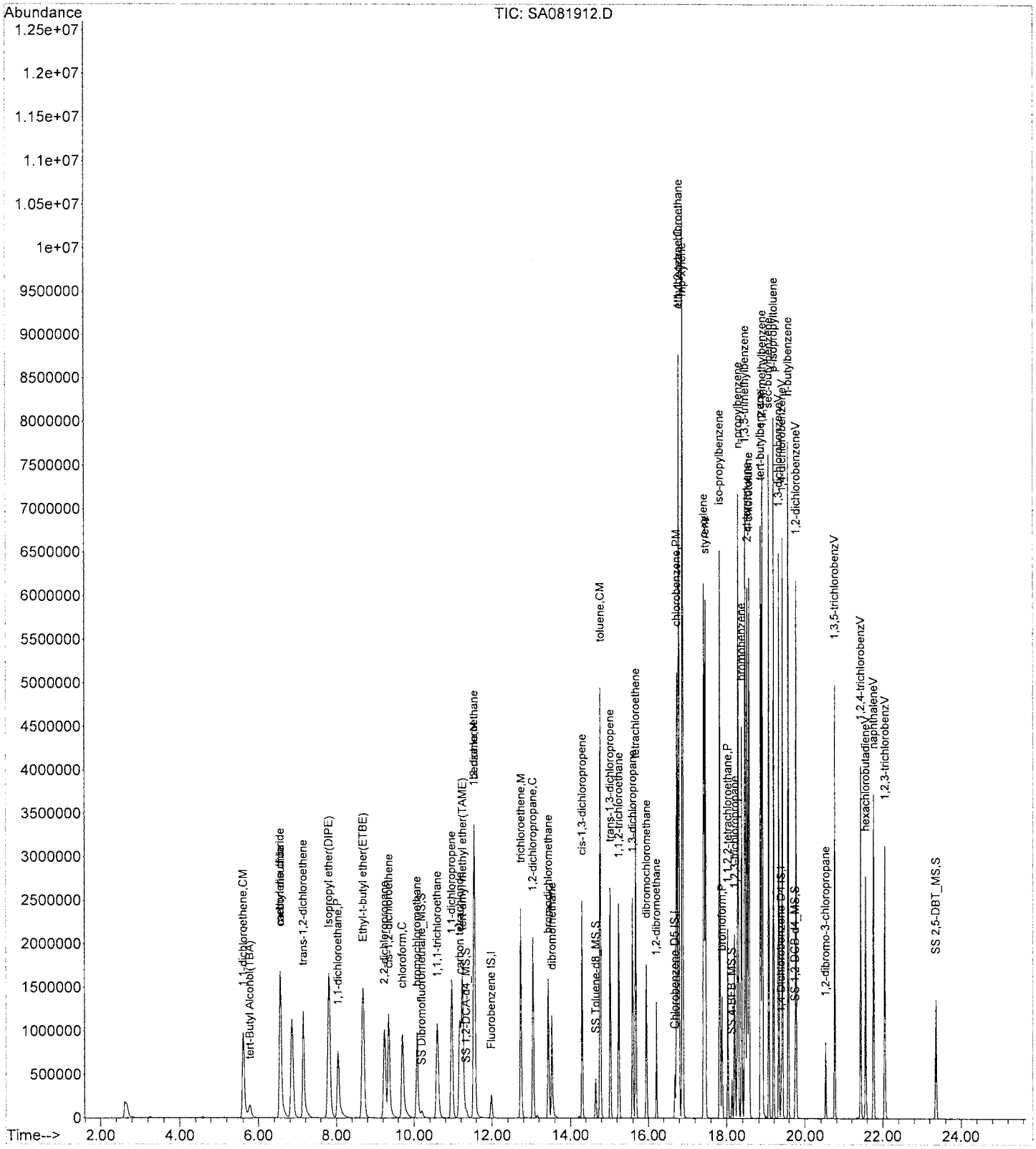
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	3612368	220.538	ug/L	100
61)	o-xylene	17.42	106	1899543	122.662	ug/L	99
62)	styrene	17.46	104	3197383	122.145	ug/L	99
63)	bromoform	17.89	173	605915	113.249	ug/L	99
64)	iso-propylbenzene	17.83	105	4489644	122.785	ug/L	99
67)	bromobenzene	18.38	156	1256098	119.458	ug/L	99
68)	1,1,2,2-tetrachloroethane	18.04	83	1018500	120.324	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	317030	119.595	ug/L	98
71)	n-propylbenzene	18.29	91	5661535	121.085	ug/L	98
72)	2-chlorotoluene	18.52	91	3508936	118.941	ug/L	100
73)	4-chlorotoluene	18.56	91	3397503	114.346	ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	4047113	122.989	ug/L	100
75)	tert-butylbenzene	18.85	119	3540878	122.486	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	4082099	119.614	ug/L	99
77)	sec-butylbenzene	19.06	105	4997923	122.160	ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	2402007	121.648	ug/L	99
79)	p-isopropyltoluene	19.19	119	4286623	123.635	ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	2394949	118.935	ug/L	96
81)	1,2-dichlorobenzeneV	19.78	146	2232663	119.371	ug/L	96
82)	n-butylbenzene	19.58	91	3684328	123.339	ug/L	98
84)	1,2-dibromo-3-chloropropan	20.52	157	217589	122.591	ug/L	99
85)	1,3,5-trichlorobenzV	20.75	180	1460642	128.577	ug/L	98
86)	1,2,4-trichlorobenzV	21.44	180	1245911	134.281	ug/L	98
87)	hexachlorobutadieneV	21.56	225	539972	121.657	ug/L	98
88)	naphthaleneV	21.76	128	3216106	134.363	ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	1068249	133.073	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:51 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:52:33 2013 Quant Results File: 5VID0819.RES

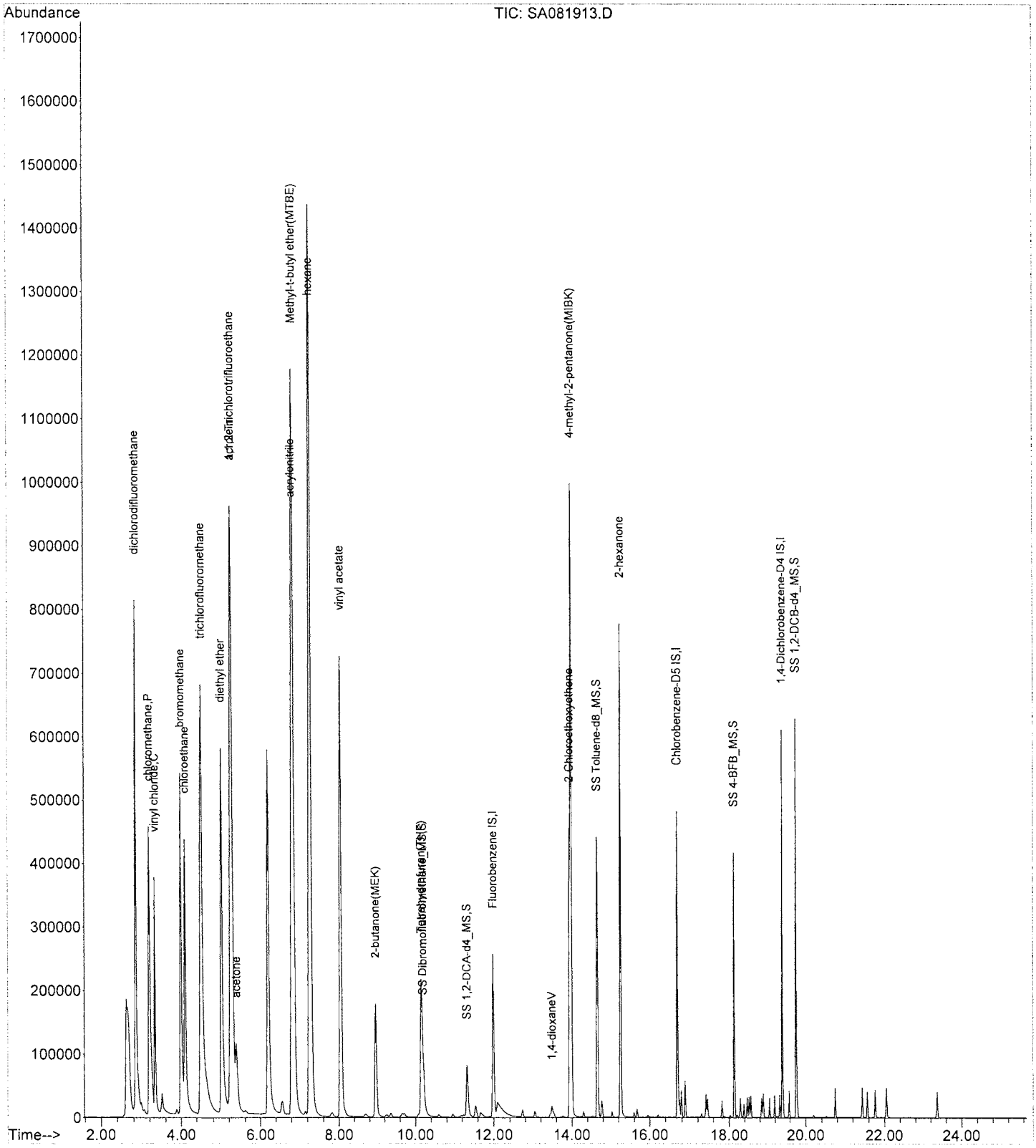
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	340007	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266108	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139054	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80456	12.31	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.07%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98415	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.74%#			
48) SS Toluene-d8_MS	14.65	98	342489	13.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.67%#			
65) SS 4-BFB_MS	18.13	95	130668	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.80%#			
83) SS 1,2-DCB-d4_MS	19.75	152	139162	12.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.02%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	1095162	118.259	ug/L	100
3) chloromethane	3.19	50	916541	95.712	ug/L	100
4) vinyl chloride	3.33	62	418278	111.919	ug/L	98
5) bromomethane	3.99	94	608805	111.432	ug/L	99
6) chloroethane	4.11	64	592527	102.868	ug/L	99
7) trichlorofluoromethane	4.52	101	1285573	105.807	ug/L	100
8) diethyl ether	5.02	59	671885	114.034	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	878654	122.241	ug/L	96
10) acrolein	5.27	56	68419	97.919	ug/L	98
11) acetone	5.39	43	202643	109.678	ug/L	93
17) acrylonitrile	6.82	53	358412	124.710	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	2326818	139.589	ug/L	96
20) hexane	7.27	57	1450032	165.186	ug/L	99
22) vinyl acetate	8.05	43	1807134	149.706	ug/L	98
27) 2-butanone(MEK)	8.96	43	373366	140.248	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	254908	148.020	ug/L	99
41) 1,4-dioxaneV	13.48	88	18331	276.930	ug/L #	79
44) 2-Chloroethoxyethene	13.95	63	207200	132.384	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	318455	135.264	ug/L	87
52) 2-hexanone	15.25	43	535895	143.778	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352917	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	283633	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	153510	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	83172	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.57%#			
35) SS 1,2-DCA-d4_MS	11.34	65	91309	11.51	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 115.08%			
48) SS Toluene-d8_MS	14.66	98	355662	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
65) SS 4-BFB_MS	18.13	95	139298	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.82%#			
83) SS 1,2-DCB-d4_MS	19.76	152	152678	12.62	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.24%#			
90) SS 2,5-DBT_MS	23.36	250	771525	249.92	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 624.79%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	1639315	209.245	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.86	59	729498	1353.541	ug/L #	80
15) methylene chloride	6.54	84	1690349	192.418	ug/L	97
16) carbon disulfide	6.57	76	4981979	220.091	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	1915096	255.935	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	6511629	282.763	ug/L	97
23) 1,1-dichloroethane	8.04	63	3480341	251.281	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	5811062	307.178	ug/L #	96
25) 2,2-dichloropropane	9.24	77	2749515	314.138	ug/L	89
26) cis-1,2-dichloroethene	9.36	61	2726180	252.944	ug/L	99
28) bromochloromethane	10.08	128	1027863	251.673	ug/L	99
30) chloroform	9.71	83	3356260	244.984	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	2901909	268.582	ug/L	97
33) carbon tetrachloride	11.17	117	2627635	271.829	ug/L	100
34) 1,1-dichloropropene	10.96	75	2780848	261.767	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	5282500	259.403	ug/L #	88
37) benzene	11.56	78	7736803	232.322	ug/L	100
38) 1,2-dichloroethane	11.54	62	2496597	228.589	ug/L	99
39) trichloroethene	12.73	95	2083327	248.290	ug/L	98
40) 1,2-dichloropropane	13.05	63	2045445	249.431	ug/L	97
42) dibromomethane	13.53	93	1169005	240.240	ug/L	96
43) bromodichloromethane	13.44	83	2581872	266.209	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	3110944	234.689	ug/L	98
49) toluene	14.77	91	8201808	225.039	ug/L	99
50) trans-1,3-dichloropropene	15.04	75	2955640	242.915	ug/L	98
51) 1,1,2-trichloroethane	15.25	83	1405014	243.066	ug/L	98
53) tetrachloroethene	15.67	166	2315834	237.012	ug/L	95
54) 1,3-dichloropropane	15.60	76	2915417	234.879	ug/L	100
55) dibromochloromethane	15.95	129	2046120	237.426	ug/L #	99
56) 1,2-dibromoethane	16.22	107	1801957	256.835	ug/L	100
57) chlorobenzene	16.75	112	5651839	224.266	ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	1740580	222.348	ug/L	100
59) ethylbenzene	16.80	91	7911394	195.131	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

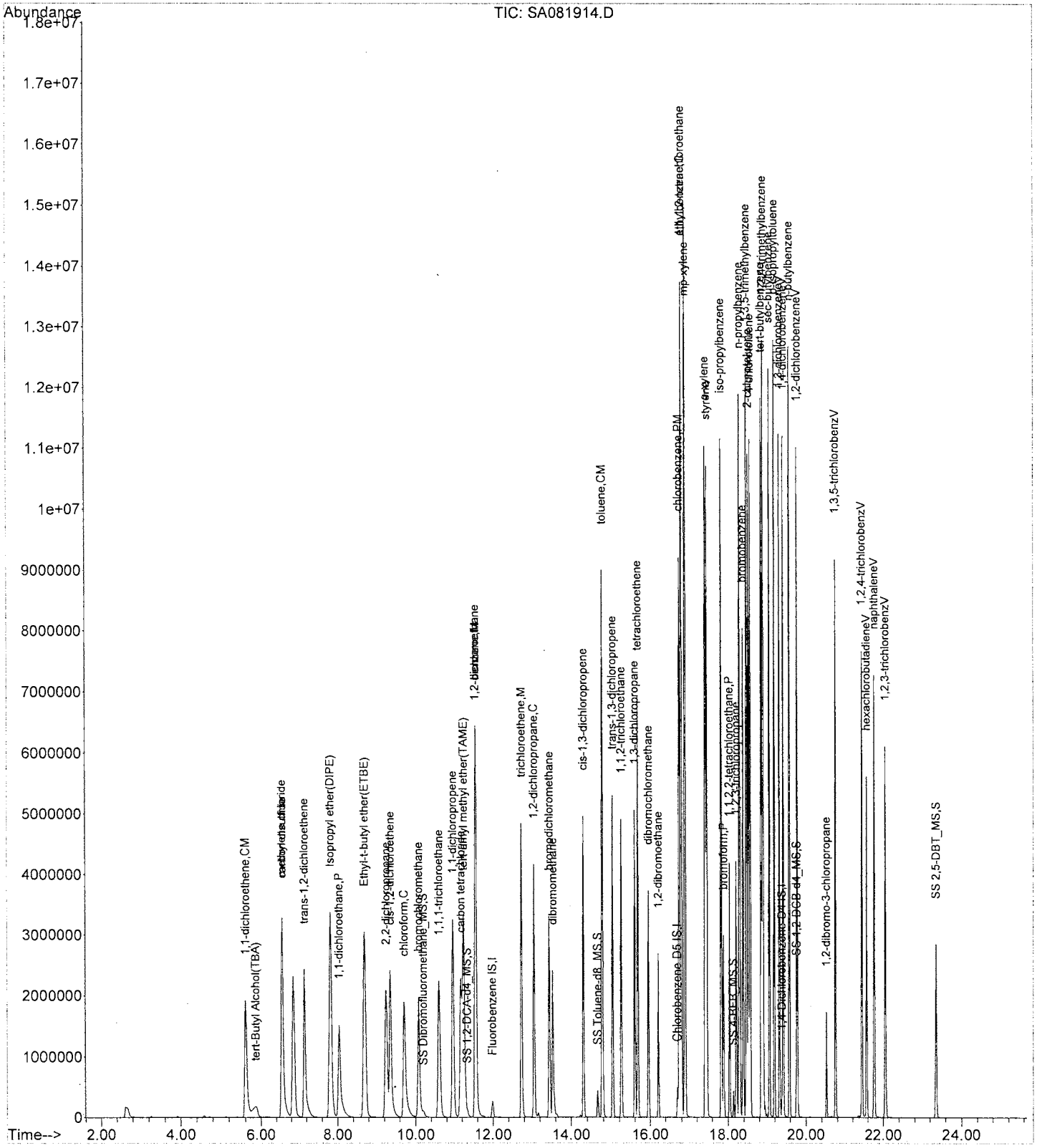
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	5843928	355.097	ug/L	99
61)	o-xylene	17.42	106	3620276	232.677	ug/L	99
62)	styrene	17.46	104	5948127	226.157	ug/L	97
63)	bromoform	17.89	173	1315128	241.348	ug/L	97
64)	iso-propylbenzene	17.83	105	8256023	224.726	ug/L	98
67)	bromobenzene	18.38	156	2519837	238.767	ug/L	96
68)	1,1,2,2-tetrachloroethane	18.04	83	2105043	247.777	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	651168	244.746	ug/L	98
71)	n-propylbenzene	18.29	91	10096001	215.138	ug/L	95
72)	2-chlorotoluene	18.52	91	6431269	217.201	ug/L	98
73)	4-chlorotoluene	18.56	91	6405595	214.798	ug/L	98
74)	1,3,5-trimethylbenzene	18.47	105	7324783	221.782	ug/L	99
75)	tert-butylbenzene	18.85	119	6622103	228.234	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	7265425	212.115	ug/L	99
77)	sec-butylbenzene	19.06	105	8783820	213.911	ug/L	97
78)	1,3-dichlorobenzeneV	19.32	146	4477751	225.944	ug/L	99
79)	p-isopropyltoluene	19.19	119	7531539	216.432	ug/L	97
80)	1,4-dichlorobenzeneV	19.43	146	4465428	220.947	ug/L	95
81)	1,2-dichlorobenzeneV	19.78	146	4209219	224.227	ug/L	96
82)	n-butylbenzene	19.59	91	6556792	218.698	ug/L	96
84)	1,2-dibromo-3-chloropropan	20.52	157	456270	252.746	ug/L	99
85)	1,3,5-trichlorobenzV	20.75	180	2915062	255.668	ug/L	97
86)	1,2,4-trichlorobenzV	21.44	180	2543411	273.120	ug/L	97
87)	hexachlorobutadieneV	21.56	225	1138311	255.527	ug/L	97
88)	naphthaleneV	21.77	128	6413602	266.969	ug/L	100
89)	1,2,3-trichlorobenzV	22.06	180	2198315	272.846	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54:51 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

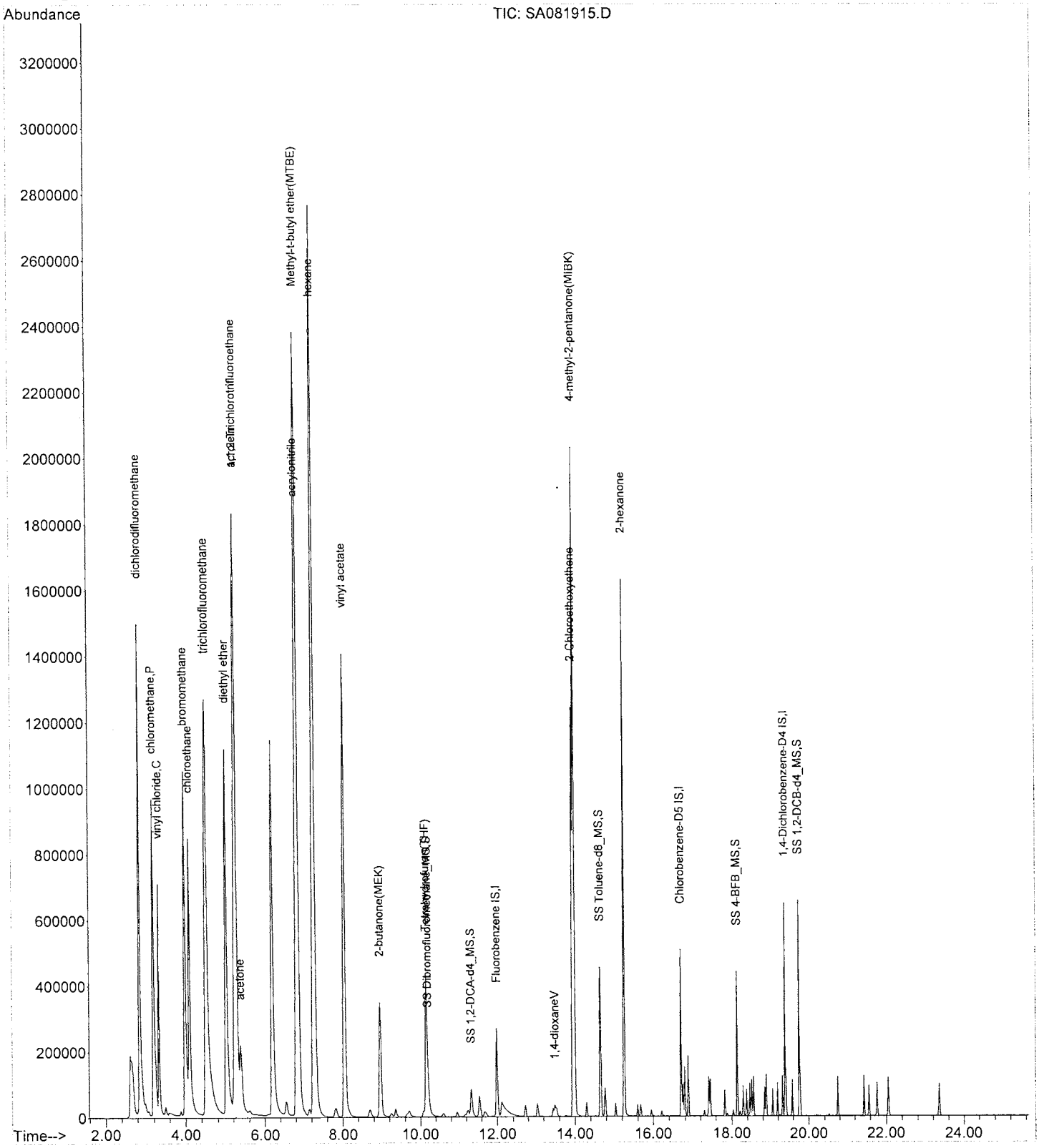
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356797	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	279401	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145819	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84203	12.27	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.74%#			
35) SS 1,2-DCA-d4_MS	11.33	65	101012	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
48) SS Toluene-d8_MS	14.65	98	354222	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.72%#			
65) SS 4-BFB_MS	18.13	95	137774	13.24	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.36%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145313	12.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.48%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	2171742	223.476	ug/L	100
3) chloromethane	3.18	50	1860747	185.169	ug/L	100
4) vinyl chloride	3.32	62	783027	202.579	ug/L	99
5) bromomethane	3.98	94	1244891	217.135	ug/L	99
6) chloroethane	4.10	64	1161779	192.205	ug/L	99
7) trichlorofluoromethane	4.51	101	2517167	197.422	ug/L	99
8) diethyl ether	5.02	59	1315712	212.798	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	1723484	228.492	ug/L	95
10) acrolein	5.27	56	137288	187.236	ug/L	98
11) acetone	5.39	43	399475	206.036	ug/L	94
17) acrylonitrile	6.82	53	722347	239.515	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	4757111	271.956	ug/L #	95
20) hexane	7.27	57	2854505	309.879	ug/L	98
22) vinyl acetate	8.05	43	3538301	279.325	ug/L	99
27) 2-butanone(MEK)	8.96	43	758375	271.465	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	517422	286.317	ug/L	100
41) 1,4-dioxaneV	13.49	88	37226	535.915	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	579288	250.204	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	651623	263.753	ug/L	82
52) 2-hexanone	15.25	43	1089936	278.512	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	361117	10.000	ug/L		0.00
47) Chlorobenzene-D5 IS	16.70	117	297048	10.000	ug/L		0.00
66) 1,4-Dichlorobenzene-D4 IS	19.40	152	157098	10.000	ug/L		0.00
System Monitoring Compounds							
31) SS Dibromofluoromethane_MS	10.20	111	86530	12.46	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.63%#				
35) SS 1,2-DCA-d4_MS	11.34	65	92177	11.35	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.53%				
48) SS Toluene-d8_MS	14.66	98	370428	12.66	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.61%#				
65) SS 4-BFB_MS	18.14	95	146929	13.28	ug/L		0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.77%#				
83) SS 1,2-DCB-d4_MS	19.76	152	153858	12.43	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.31%#				
90) SS 2,5-DBT_MS	23.36	250	1176146	369.66	ug/L		0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 924.15%#				
Target Compounds							Qvalue
12) 1,1-dichloroethene	5.60	96	2351713	293.360	ug/L		98
13) tert-Butyl Alcohol(TBA)	5.94	59	1071899m	1943.685	ug/L		
15) methylene chloride	6.54	84	2373457	264.044	ug/L		96
16) carbon disulfide	6.56	76	6989642	301.772	ug/L		99
19) trans-1,2-dichloroethene	7.14	96	2825884	369.078	ug/L		99
21) Isopropyl ether(DIPE)	7.82	45	9466436	401.740	ug/L		97
23) 1,1-dichloroethane	8.04	63	5164363	364.400	ug/L		99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	8575182	442.999	ug/L	#	95
25) 2,2-dichloropropane	9.25	77	3897354	435.170	ug/L	#	88
26) cis-1,2-dichloroethene	9.36	61	4000822	362.780	ug/L		98
28) bromochloromethane	10.08	128	1530647	366.270	ug/L		98
30) chloroform	9.71	83	4978228	355.126	ug/L		99
32) 1,1,1-trichloroethane	10.59	97	4235914	383.147	ug/L		97
33) carbon tetrachloride	11.17	117	3829009	387.117	ug/L		99
34) 1,1-dichloropropene	10.96	75	4029861	370.726	ug/L		97
36) tert-amyl methyl ether(TAM	11.25	73	7865850	375.326	ug/L	#	87
37) benzene	11.56	78	10778944	316.322	ug/L		99
38) 1,2-dichloroethane	11.54	62	3507010	313.812	ug/L		99
39) trichloroethene	12.73	95	3049607	355.198	ug/L		98
40) 1,2-dichloropropane	13.05	63	2986704	355.943	ug/L		96
42) dibromomethane	13.53	93	1714518	344.346	ug/L		96
43) bromodichloromethane	13.44	83	3810484	383.966	ug/L		99
46) cis-1,3-dichloropropene	14.31	75	4524780	332.879	ug/L		97
49) toluene	14.77	91	11176932	292.820	ug/L		98
50) trans-1,3-dichloropropene	15.04	75	4253809	333.325	ug/L		97
51) 1,1,2-trichloroethane	15.25	83	2050277	338.678	ug/L		98
53) tetrachloroethene	15.68	166	3280022	320.531	ug/L		94
54) 1,3-dichloropropane	15.60	76	4181659	321.679	ug/L		99
55) dibromochloromethane	15.95	129	3005809	332.115	ug/L	#	99
56) 1,2-dibromoethane	16.22	107	2663210	362.448	ug/L		99
57) chlorobenzene	16.75	112	7716586	292.368	ug/L		98
58) 1,1,1,2-tetrachloroethane	16.79	131	2279636	278.057	ug/L		99
59) ethylbenzene	16.80	91	9741323	229.414	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

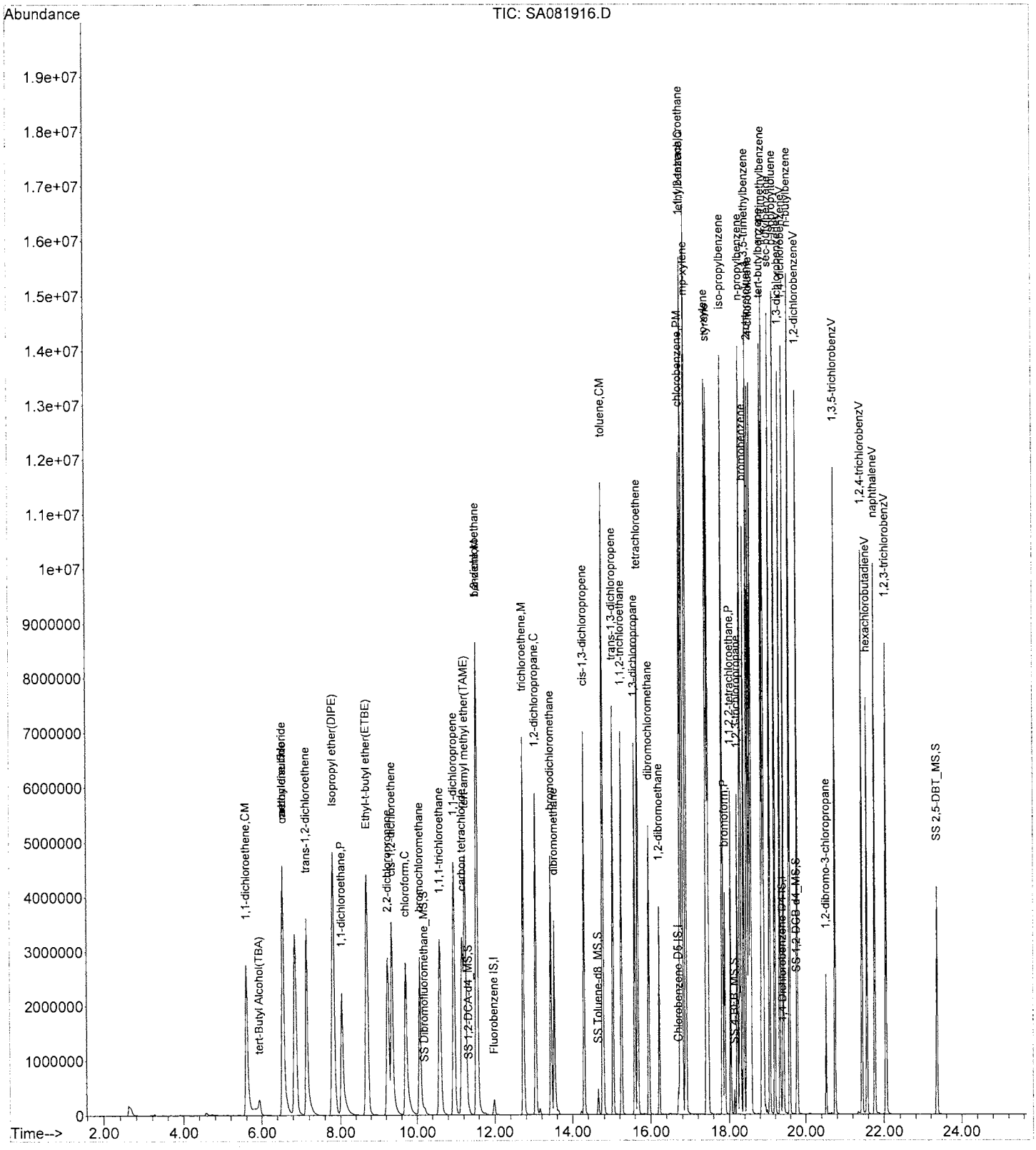
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
60)	mp-xylene	16.90	106	7129553	413.652 ug/L	99
61)	o-xylene	17.42	106	4827336	296.243 ug/L	98
62)	styrene	17.47	104	7881747	286.143 ug/L	97
63)	bromoform	17.90	173	1915867	334.604 ug/L	96
64)	iso-propylbenzene	17.83	105	10853307	282.082 ug/L	97
67)	bromobenzene	18.38	156	3532372	327.065 ug/L	95
68)	1,1,2,2-tetrachloroethane	18.04	83	2945469	338.782 ug/L	98
69)	1,2,3-trichloropropane	18.21	110	926336	340.217 ug/L	97
71)	n-propylbenzene	18.30	91	12752599	265.541 ug/L	93
72)	2-chlorotoluene	18.52	91	8782648	289.839 ug/L	97
73)	4-chlorotoluene	18.57	91	8183486	268.149 ug/L	97
74)	1,3,5-trimethylbenzene	18.47	105	9432429	279.074 ug/L	99
75)	tert-butylbenzene	18.86	119	8575894	288.822 ug/L	95
76)	1,2,4-trimethylbenzene	18.90	105	9254189	264.006 ug/L	99
77)	sec-butylbenzene	19.07	105	11057784	263.138 ug/L	95
78)	1,3-dichlorobenzeneV	19.33	146	5869211	289.393 ug/L	98
79)	p-isopropyltoluene	19.20	119	9495059	266.625 ug/L	95
80)	1,4-dichlorobenzeneV	19.43	146	5795670	280.217 ug/L	95
81)	1,2-dichlorobenzeneV	19.79	146	5546151	288.698 ug/L	96
82)	n-butylbenzene	19.59	91	8238948	268.529 ug/L	95
84)	1,2-dibromo-3-chloropropan	20.52	157	675015	363.995 ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	4004204	343.171 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	3606681	378.452 ug/L	97
87)	hexachlorobutadieneV	21.57	225	1626693	356.819 ug/L	96
88)	naphthaleneV	21.77	128	8904734	362.198 ug/L	99
89)	1,2,3-trichlorobenzV	22.06	180	3179709	385.639 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:43 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57:01 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

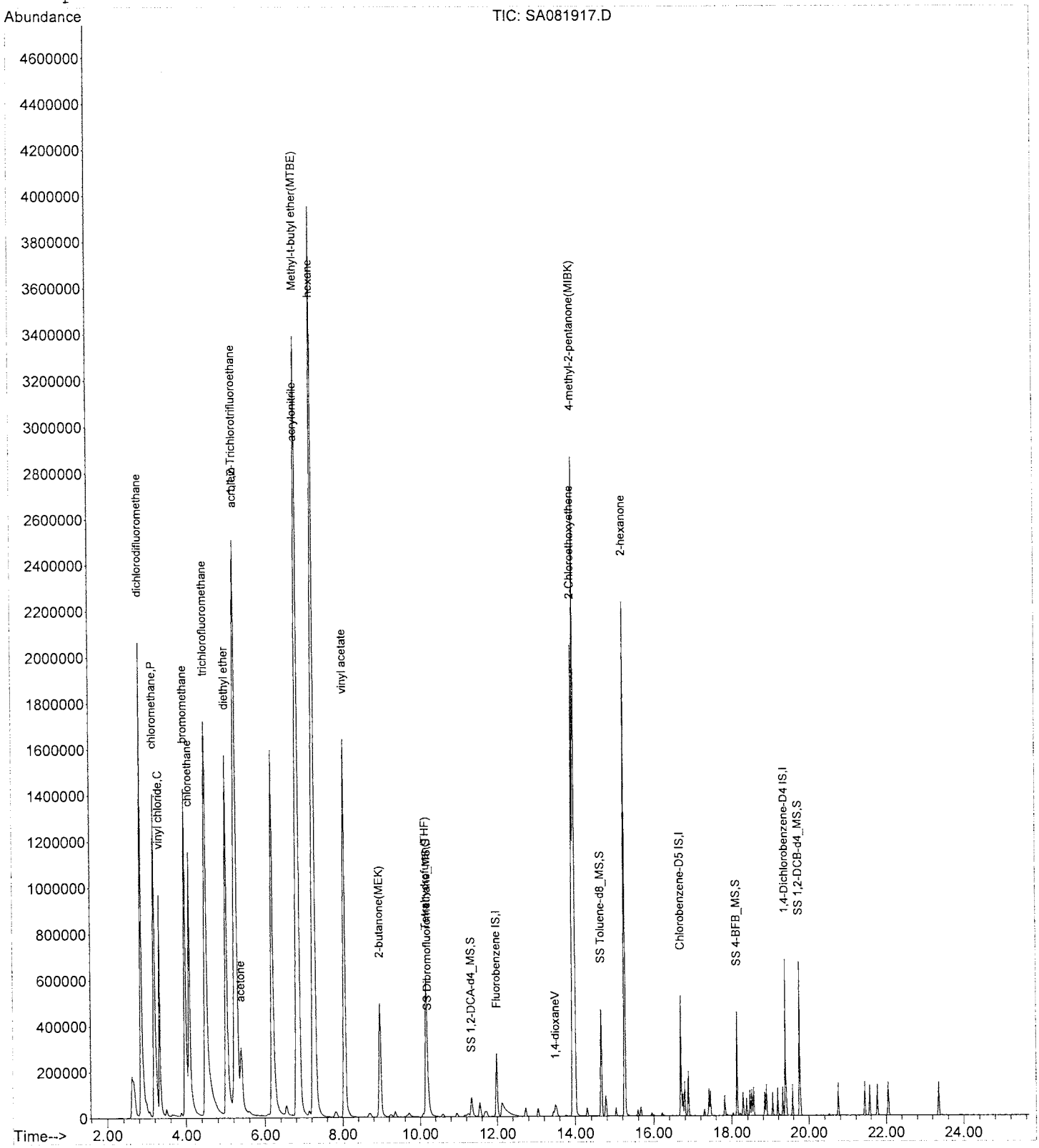
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	365026	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	289748	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	151171	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84441	12.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.32%#			
35) SS 1,2-DCA-d4_MS	11.33	65	100614	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.60%#			
48) SS Toluene-d8_MS	14.65	98	367488	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.77%#			
65) SS 4-BFB_MS	18.13	95	145238	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	149858	12.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.82%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	3136326	315.458	ug/L	100
3) chloromethane	3.18	50	2741981	266.712	ug/L	100
4) vinyl chloride	3.32	62	1081763	274.863	ug/L	99
5) bromomethane	3.98	94	1770569	301.862	ug/L	99
6) chloroethane	4.09	64	1619597	261.906	ug/L	99
7) trichlorofluoromethane	4.50	101	3572269	273.858	ug/L	99
8) diethyl ether	5.02	59	1883432	297.751	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.25	101	2408761	312.145	ug/L	95
10) acrolein	5.27	56	202421	269.842	ug/L	98
11) acetone	5.40	43	583196	294.013	ug/L	94
17) acrylonitrile	6.82	53	1052204	341.023	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	6841158	382.281	ug/L #	94
20) hexane	7.27	57	4092546	434.263	ug/L	97
22) vinyl acetate	8.05	43	4142786	319.672	ug/L	99
27) 2-butanone(MEK)	8.97	43	1123141	392.972	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	764350	413.421	ug/L	100
41) 1,4-dioxaneV	13.50	88	56897	800.639	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	979465	340.252	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	973665	385.220	ug/L	92
52) 2-hexanone	15.25	43	1616710	398.367	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58:02 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

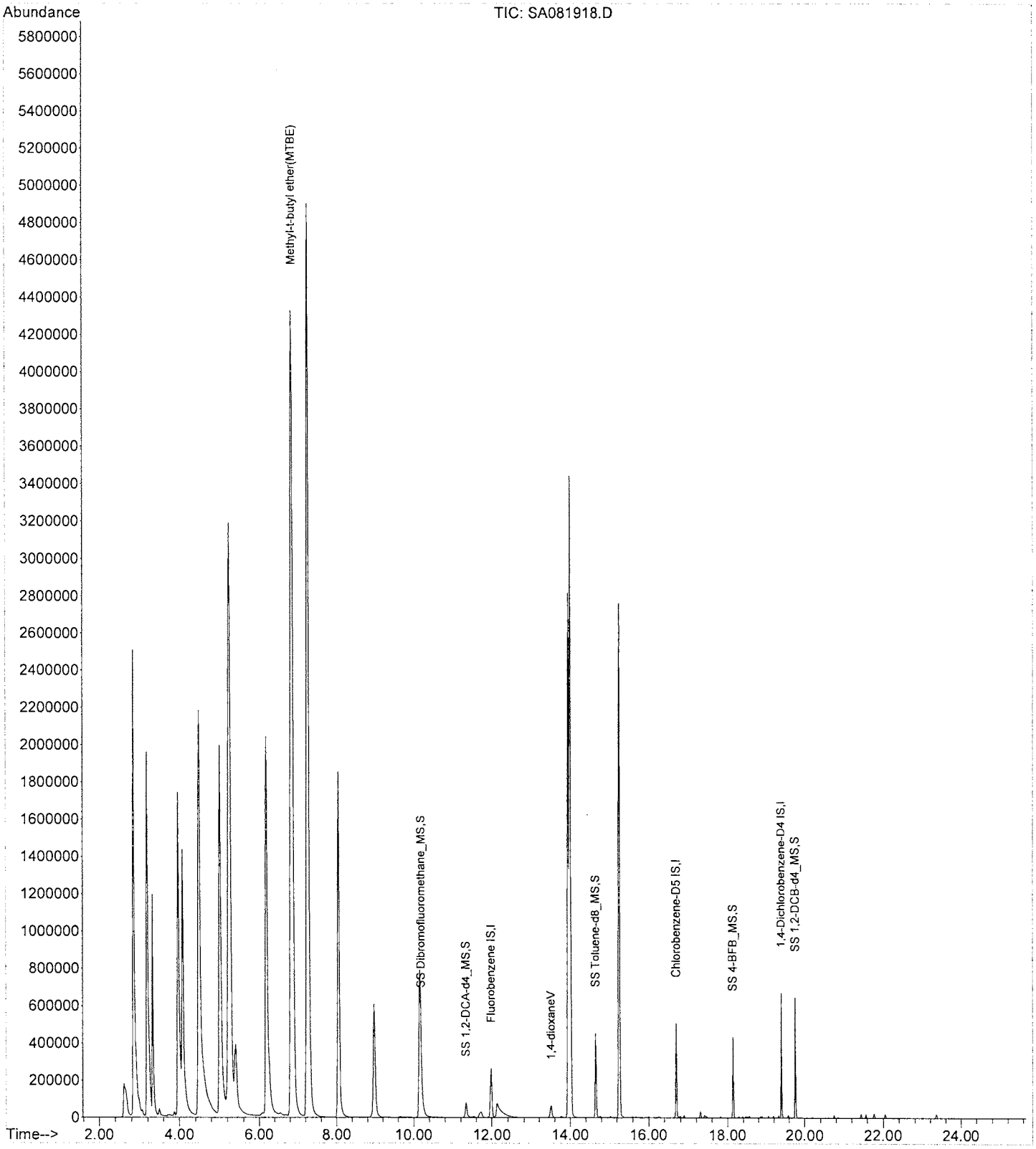
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352067	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282826	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	146980	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.19	111	81596	12.05	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.54%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98326	12.42	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.22%#			
48) SS Toluene-d8_MS	14.65	98	355856	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.75%#			
65) SS 4-BFB_MS	18.13	95	141765	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	146942	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.89%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.86	73	8686728	503.277	ug/L #	94
41) 1,4-dioxaneV	13.50	88	76339	1113.761	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

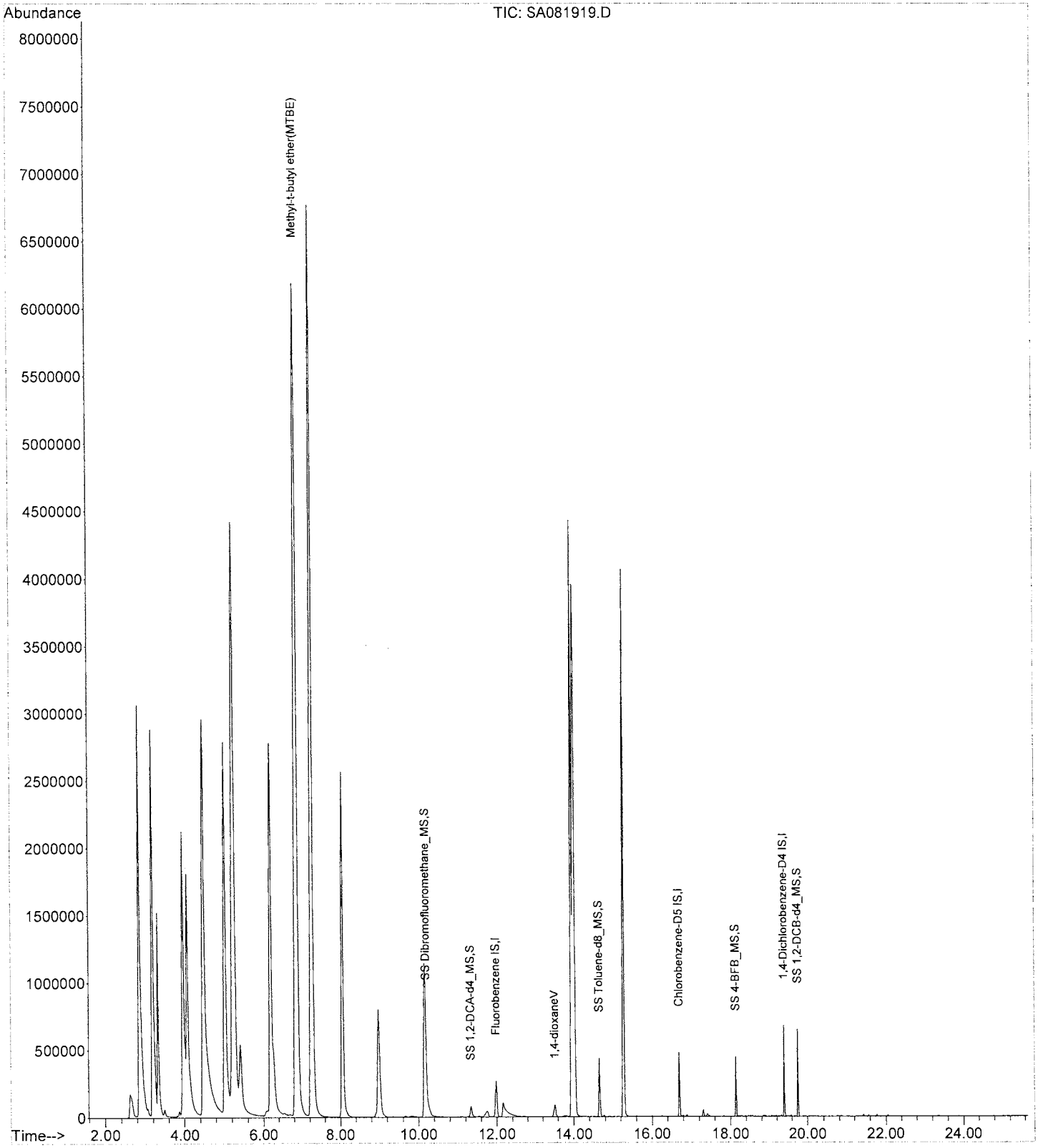
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356279	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	285578	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	147736	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79805	11.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 116.50%			
35) SS 1,2-DCA-d4_MS	11.33	65	97661	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.66	98	357402	12.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.06%#			
65) SS 4-BFB_MS	18.14	95	141951	13.34	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.42%#			
83) SS 1,2-DCB-d4_MS	19.76	152	148035	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.18%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.87	73	12562050	719.195	ug/L #	94
41) 1,4-dioxaneV	13.52	88	116549	1680.309	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



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Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	101	0.00
2		dichlorodifluoromethane	20.000	10.905 ↓	45.5#	60	0.00
3	P	chloromethane	20.000	14.534 ↓	27.3#	80	0.00
4	C	vinyl chloride	20.000	15.953	20.2#	85	0.01
5		bromomethane	20.000	17.157	14.2	93	0.02
6		chloroethane	20.000	17.506	12.5	94	0.02
7		trichlorofluoromethane	20.000	17.078	14.6	91	0.01
8		diethyl ether	20.000	21.076	-5.4	112	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.172	4.1	102	0.01
10		acrolein	20.000	25.533 ↑	-27.7#	129	0.00
11		acetone	20.000	18.652	6.7	99	-0.02
12	CM	1,1-dichloroethene	20.000	18.246	8.8	94	0.01
13		tert-Butyl Alcohol(TBA)	100.000	92.436 ✓	7.6	95	0.00
14		Iodomethane	20.000	18.505	7.5	114	0.00
15		methylene chloride	20.000	19.740	1.3	98	0.00
16		carbon disulfide	20.000	18.107	9.5	94	0.00
17		acrylonitrile	20.000	17.791 ✓	11.0	94	-0.01
18		Methyl-t-butyl ether(MTBE)	20 ~~40~~.000	20.236 OK ✓	49.4#	53	-0.01
19		trans-1,2-dichloroethene	20.000	19.527	2.4	97	0.00
20		hexane	20.000	0.099	99.5#	1	0.00
21		Isopropyl ether(DIPE)	20.000	20.014	-0.1	99	-0.02
22		vinyl acetate	20.000	11.121 ↓	44.4#	56	0.00
23	P	1,1-dichloroethane	20.000	19.586	2.1	96	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	101	-0.01
25		2,2-dichloropropane	20.000	20.710	-3.6	99	0.00
26		cis-1,2-dichloroethene	20.000	21.297	-6.5	104	0.00
27		2-butanone(MEK)	20.000	18.212	8.9	103	-0.02
28		bromochloromethane	20.000	19.554	2.2	99	0.00
29		Tetrahydrofuran(THF)	20.000	19.171	4.1	104	0.00
30	C	chloroform	20.000	19.390	3.0	97	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.126	-1.3	101	0.00
32		1,1,1-trichloroethane	20.000	19.826	0.9	98	0.00
33		carbon tetrachloride	20.000	19.884	0.6	97	0.00
34		1,1-dichloropropene	20.000	18.723	6.4	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.888	1.1	100	0.00
36		tert-amyl methyl ether(TAME	20.000	20.530	-2.7	103	-0.02
37	M	benzene	20.000	20.251	-1.3	99	-0.01
38		1,2-dichloroethane	20.000	19.390	3.0	94	-0.01
39	M	trichloroethene	20.000	18.635	6.8	97	0.00
40	C	1,2-dichloropropane	20.000	20.058 ✓	-0.3	99	0.00
41		1,4-dioxaneV	20 ~~40~~.000	25.614 OK	36.0#	59	-0.02
42		dibromomethane	20.000	19.717	1.4	99	0.00
43		bromodichloromethane	20.000	19.342	3.3	96	0.00
44		2-Chloroethoxyethene	20.000	27.375 ↑	-36.9#	236	0.00
45		4-methyl-2-pentanone(MIBK)	20.000	19.509	2.5	105	-0.02
46		cis-1,3-dichloropropene	20.000	22.074	-10.4	108	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	102	0.00
48	S	SS Toluene-d8_MS	10.000	9.889	1.1	101	0.00
49	CM	toluene	20.000	20.389	-1.9	99	-0.01
50		trans-1,3-dichloropropene	20.000	20.612	-3.1	100	0.00
51		1,1,2-trichloroethane	20.000	19.927	0.4	101	0.00
52		2-hexanone	20.000	19.470	2.7	107	-0.02
53		tetrachloroethene	20.000	19.990	0.1	103	0.00
54		1,3-dichloropropane	20.000	19.175	4.1	100	0.00
55		dibromochloromethane	20.000	18.485	7.6	101	0.00
56		1,2-dibromoethane	20.000	19.837	0.8	99	0.00

Probable solution degradation; Reanalyze.

57	FA	chlorobenzene	20.000	19.917		0.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.283		-6.4	99	0.00
59	C	ethylbenzene	20.000	20.418	✓	-2.1	99	-0.01
60		mp-xylene	40.000	39.722	✓	0.7	99	-0.01
61		o-xylene	20.000	20.551		-2.8	99	-0.01
62		styrene	20.000	21.494		-7.5	101	-0.01
63	P	bromoform	20.000	18.485		7.6	106	0.00
64		iso-propylbenzene	20.000	22.658		-13.3	107	0.00
65	S	SS 4-BFB_MS	10.000	10.014		-0.1	102	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000		0.0	102	0.00
67		bromobenzene	20.000	19.813		0.9	98	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.994		0.0	98	0.00
69		1,2,3-trichloropropane	20.000	19.110		4.5	97	-0.01
70		trans-1,4-dichloro-2-butene	20.000	36.509	↑	-82.5#	206	-0.02
71		n-propylbenzene	20.000	21.322		-6.6	100	-0.01
72		2-chlorotoluene	20.000	20.019		-0.1	97	-0.01
73		4-chlorotoluene	20.000	20.690		-3.5	98	-0.01
74		1,3,5-trimethylbenzene	20.000	20.898		-4.5	99	-0.01
75		tert-butylbenzene	20.000	20.674		-3.4	98	-0.01
76		1,2,4-trimethylbenzene	20.000	20.872		-4.4	98	-0.01
77		sec-butylbenzene	20.000	21.027		-5.1	98	0.00
78		1,3-dichlorobenzeneV	20.000	20.415		-2.1	98	0.00
79		p-isopropyltoluene	20.000	21.613		-8.1	99	0.00
80		1,4-dichlorobenzeneV	20.000	20.570		-2.9	99	-0.01
81		1,2-dichlorobenzeneV	20.000	20.087		-0.4	97	0.00
82		n-butylbenzene	20.000	21.377		-6.9	98	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.086		-0.9	103	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.813		5.9	105	0.00
85		1,3,5-trichlorobenzV	20.000	20.881		-4.4	102	0.00
86		1,2,4-trichlorobenzV	20.000	19.953		0.2	99	-0.01
87		hexachlorobutadieneV	20.000	18.435		7.8	95	-0.01
88		naphthaleneV	20.000	20.212		-1.1	98	-0.01
89		1,2,3-trichlorobenzV	20.000	19.789		1.1	99	-0.01
90	S	SS 2,5-DBT_MS	20.000	2.735		86.3#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

SA081909.D 5VID0819.M Fri Aug 23 12:47:55 2013

8/23/13

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334400	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268265	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	144317	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79776	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.26%			
35) SS 1,2-DCA-d4_MS	11.33	65	93014	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.88%			
48) SS Toluene-d8_MS	14.65	98	336585	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.89%			
65) SS 4-BFB_MS	18.13	95	133430	10.01	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.14%			
83) SS 1,2-DCB-d4_MS	19.75	152	145311	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.86%			
90) SS 2,5-DBT_MS	23.36	250	124	2.73	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.84%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	116230	10.905	ug/L	99
3) chloromethane	3.19	50	138142	14.534	ug/L	100
4) vinyl chloride	3.34	62	68399	15.953	ug/L	100
5) bromomethane	3.99	94	87185	17.157	ug/L	97
6) chloroethane	4.11	64	102536	17.506	ug/L	98
7) trichlorofluoromethane	4.52	101	214528	17.078	ug/L	99
8) diethyl ether	5.02	59	138702	21.076	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	166080	19.172	ug/L	99
10) acrolein	5.27	56	17833	25.533	ug/L	97
11) acetone	5.39	43	37928	18.652	ug/L	98
12) 1,1-dichloroethene	5.61	96	151012	18.246	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65776	92.436	ug/L	97
14) Iodomethane	6.20	142	209619	18.505	ug/L #	99
15) methylene chloride	6.55	84	172986	19.740	ug/L	100
16) carbon disulfide	6.57	76	450197	18.107	ug/L	98
17) acrylonitrile	6.82	53	64549	17.791	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	466669	20.236	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	174070	19.527	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	619163	20.014	ug/L	99
22) vinyl acetate	8.05	43	176494	11.121	ug/L	99
23) 1,1-dichloroethane	8.05	63	321728	19.586	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.68	59	554843	20.305	ug/L	99
25) 2,2-dichloropropane	9.25	77	257500	20.710	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	273762	21.297	ug/L	95
27) 2-butanone(MEK)	8.96	43	68155	18.212	ug/L	99
28) bromochloromethane	10.08	128	92247	19.554	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	48249	19.171	ug/L	95
30) chloroform	9.71	83	307364	19.390	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	262832	19.826	ug/L	99
33) carbon tetrachloride	11.17	117	225536	19.884	ug/L	99
34) 1,1-dichloropropene	10.96	75	244506	18.723	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	492528	20.530	ug/L #	57
37) benzene	11.55	78	757808	20.251	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

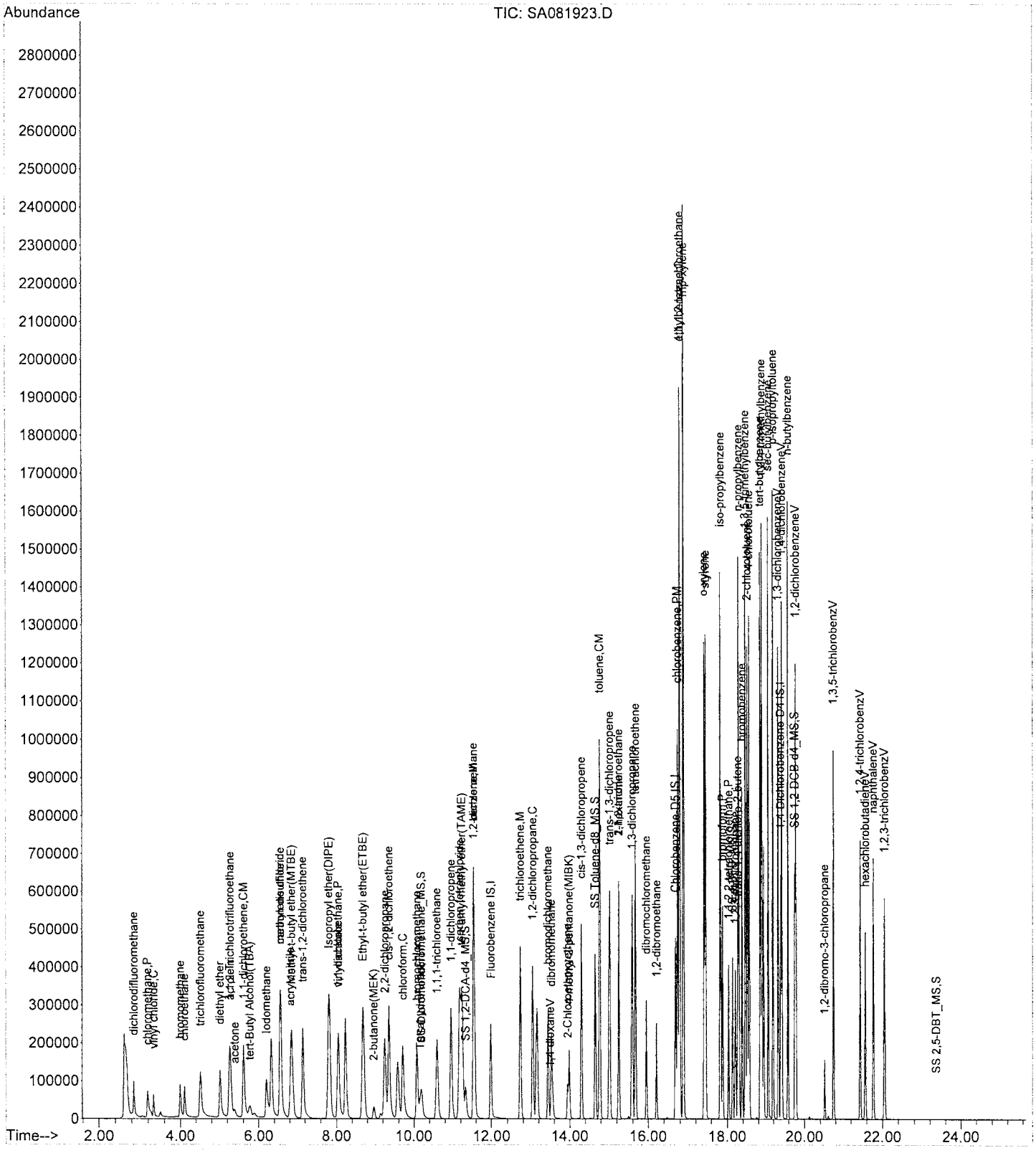
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	245366	19.390 ug/L		100
39)	trichloroethene	12.73	95	188390	18.635 ug/L		99
40)	1,2-dichloropropane	13.05	63	188863	20.058 ug/L		98
41)	1,4-dioxaneV	13.49	88	2327	25.614 ug/L	#	76
42)	dibromomethane	13.53	93	105640	19.717 ug/L		100
43)	bromodichloromethane	13.44	83	217510	19.342 ug/L		99
44)	2-Chloroethoxyethene	13.95	63	41636	27.375 ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.98	58	57518	19.509 ug/L		90
46)	cis-1,3-dichloropropene	14.30	75	298540	22.074 ug/L		99
49)	toluene	14.77	91	839732	20.389 ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	261583	20.612 ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	129594	19.927 ug/L		98
52)	2-hexanone	15.25	43	101826	19.470 ug/L		99
53)	tetrachloroethene	15.67	166	226693	19.990 ug/L		99
54)	1,3-dichloropropane	15.60	76	275069	19.175 ug/L	#	85
55)	dibromochloromethane	15.95	129	167538	18.485 ug/L	#	100
56)	1,2-dibromoethane	16.22	107	162327	19.837 ug/L		99
57)	chlorobenzene	16.74	112	557786	19.917 ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	181536	21.283 ug/L		99
59)	ethylbenzene	16.79	91	963930	20.418 ug/L		100
60)	mp-xylene	16.89	106	775350	39.722 ug/L		99
61)	o-xylene	17.41	106	374585	20.551 ug/L		99
62)	styrene	17.46	104	645710	21.494 ug/L		100
63)	bromoform	17.89	173	101459	18.485 ug/L	#	92
64)	iso-propylbenzene	17.83	105	977906	22.658 ug/L		100
67)	bromobenzene	18.38	156	238344	19.813 ug/L		99
68)	1,1,2,2-tetrachloroethane	18.03	83	191862	19.994 ug/L		99
69)	1,2,3-trichloropropane	18.20	110	58533	19.110 ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	79254	36.509 ug/L	#	80
71)	n-propylbenzene	18.28	91	1159743	21.322 ug/L		100
72)	2-chlorotoluene	18.51	91	676963	20.019 ug/L		100
73)	4-chlorotoluene	18.56	91	701509	20.690 ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	809032	20.898 ug/L		100
75)	tert-butylbenzene	18.84	119	710289	20.674 ug/L		100
76)	1,2,4-trimethylbenzene	18.89	105	823494	20.872 ug/L		99
77)	sec-butylbenzene	19.06	105	1004949	21.027 ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	464972	20.415 ug/L		100
79)	p-isopropyltoluene	19.19	119	881827	21.613 ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	467337	20.570 ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	426411	20.087 ug/L		100
82)	n-butylbenzene	19.58	91	741691	21.377 ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	36907	18.813 ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	279878	20.881 ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	226463	19.953 ug/L		100
87)	hexachlorobutadieneV	21.56	225	93768	18.435 ug/L		99
88)	naphthaleneV	21.76	128	578790	20.212 ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	193641	19.789 ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081923.D 5VID0819.M Fri Aug 23 12:55:03 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (G) 4085 (L) (Neco)

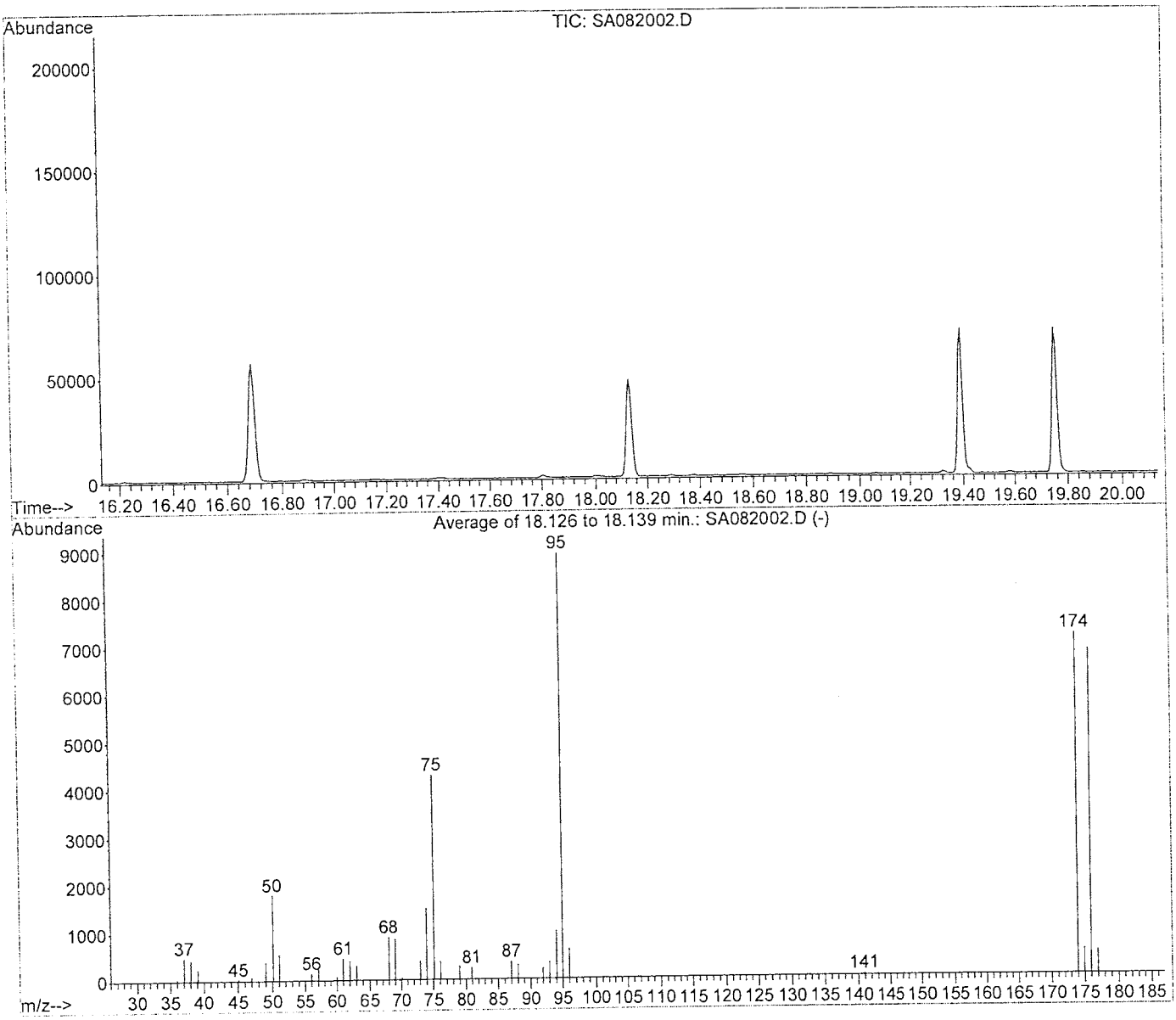
Analyst: [signature]

Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	3A082001	GAS 20					VOCMS		Second Source		
2		BFB 25ng					VOCMS	5LLD0819	duloTnol		✓
3		STD 10					VOCMS		OK		✓
4		STD 0.5					VOCMS				✓
5		MB		✓			VOCMS				✓
6		123315.01	✓	✓		X1	VOCMS		confirmation		
7		.04	✓	✓			VOCMS				
8		123380.01	✓	✓			VOCMS				
9		123611.14		✓			VOCMS				
10		.15		✓			VOCMS				
11		.16		✓			VOCMS				
12		.17		✓			VOCMS				
13		.18		✓			VOCMS				
14		.19		✓			VOCMS				
15		.20		✓			VOCMS				
16		~~123624.01~~		✓			VOCMS		123315.02 RR bromoform		
17		.02		✓			VOCMS		.03		
18		123668.01		✓			VOCMS		.05		
19		.02		✓			VOCMS		.06		
20		123669.01		✓			VOCMS		.07		
21		~~.02~~		✓			VOCMS		123677.01		
22		LCS 10					VOCMS		OK	✓	✓
23		LCSD 10					VOCMS			✓	✓
							VOCMS				
							VOCMS				
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Samples removed from autosampler ✓, order ✓ and pH ✓ verified by [signature] 8/21/13 1-23

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 12:21 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	1794	PASS
75	95	30	60	48.0	4283	PASS
95	95	100	100	100.0	8920	PASS
96	95	5	9	6.9	619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.1	7146	PASS
175	174	5	9	7.4	529	PASS
176	174	95	101	95.3	6810	PASS
177	176	5	9	7.2	489	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:23:11 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Aug 21 14:21:27 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

New 2nd Source GAS M-4092

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268403	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79209	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.35%			
35) SS 1,2-DCA-d4_MS	11.33	65	96370	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
48) SS Toluene-d8_MS	14.65	98	341573	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.31%			
65) SS 4-BFB_MS	18.13	95	131805	9.89	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.87%			
83) SS 1,2-DCB-d4_MS	19.75	152	139280	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.53%			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	213114 OK	19.560	ug/L	100
3) chloromethane	3.20	50	198329	20.412	ug/L	100
4) vinyl chloride	3.34	62	96161	22.155	ug/L	100
5) bromomethane	3.99	94	101759	19.589	ug/L	98
6) chloroethane	4.11	64	118267	19.752	ug/L	98
7) trichlorofluoromethane	4.52	101	241706	18.822	ug/L	99
10) acrolein	5.27	56	17657	24.730	ug/L	96
11) acetone	5.38	43	40059	19.271	ug/L	99
22) vinyl acetate	8.05	43	184735	11.387	ug/L	99
27) 2-butanone(MEK)	8.96	43	68939	18.020	ug/L	99
45) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.285	ug/L	89
52) 2-hexanone	15.25	43	102376	19.565	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082001.D 5VID0819.M Wed Aug 21 14:24:43 2013

bkm 8/21/13

123649
VOC 8260B Support Data

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092(L) 4085(L)

Analyst: Blue

Date: 8/22/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082201	BFB					VOCMS	5VID0819	tune failed		
2	"	STD20					VOCMS	"	1		
3		STD2					VOCMS		auto Final * used for BFB		
4		MB/~~BFB~~ Blue					VOCMS		Avg, 18.138-18.175		✓
5		STD20					VOCMS		BF ✓ ~~Blue used for BFB~~ - entire peak		✓
6		STD2					VOCMS				✓
7		123649.01		✓		x1	VOCMS				
8		.01MS		✓		"	VOCMS				✓
9		.01MSD		✓		"	VOCMS				✓
10		123649.02		✓		"	VOCMS				
11		.03		✓		"	VOCMS				
12		.04		✓		"	VOCMS				
13		.06		✓		"	VOCMS				
14		.06MS		✓		"	VOCMS				✓
15		.06MSD		✓		"	VOCMS				✓
16		~~Blue 123650.03~~					VOCMS	~~Blue~~	~~Blue~~ 123704.01 x1		
17		.04					VOCMS		123709.02 "		
18		.05					VOCMS		1 .02MS "		✓
19		123704.02MSD		✓		x1	VOCMS				✓
20		.03		✓		"	VOCMS				
21		.04		✓		"	VOCMS				
22		.05		✓		"	VOCMS				
23		LCS20					VOCMS			✓	✓
24	"	LCSD20					VOCMS	"		✓	✓
25							VOCMS				
26							VOCMS				
27							VOCMS				
28							VOCMS				
29							VOCMS				
30							VOCMS				
31							VOCMS				
32							VOCMS				
33							VOCMS				
34							VOCMS				
35							VOCMS				
36							VOCMS				
37							VOCMS				
38							VOCMS				
39							VOCMS				
40							VOCMS				
41							VOCMS				
42							VOCMS				

Samples removed from autosampler, order and pH verified by Blue 8/23/13 1-24

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\DATA\2013\AUG13\AUG2213\SA082203.D
Tune Time : 22 Aug 2013 8:47 am

Daily Calibration File : C:\MSDCHEM\1\DATA\2013\AUG13\AUG2213\SA082205.D

						343104	273916	148868
File	Sample	Surrogate Recovery %				Internal Standard Responses		
SA082203.D	STD 2	98	99	100	100	340667	266776	142757
		100	11*					
SA082204.D	MB	98	100	100	98	334983	263391	137346
		101	7*					
SA082205.D	STD 20	101	97	100	101	343104	273916	148868
		100	42*					
SA082206.D	STD 2	98	99	100	100	334364	261227	138451
		100	10*					
SA082207.D	123649.01	98	100	100	99	329553	260372	136123
		101	7*					
SA082208.D	123649.01	102	97	99	99	331669	266923	145044
		100	7*					
SA082209.D	123649.01	101	97	99	100	344302	276735	148707
		100	0*					
SA082210.D	123649.02	98	99	100	99	335374	263799	137950
		101	0*					
SA082211.D	123649.03	99	100	99	98	326242	261159	135572
		101	0*					
SA082212.D	123649.04	98	101	100	98	333819	263870	135908
		102	0*					
SA082213.D	123649.06	98	101	99	98	338870	269977	139272
		102	0*					
SA082214.D	123649.06	102	96	99	100	346403	278203	149918
		100	0*					
SA082215.D	123649.06	102	95	99	100	349831	278751	148463
		101	0*					
SA082216.D	123704.01	99	101	99	98	333184	265243	136281
		102	0*					
SA082217.D	123704.02	98	101	99	98	335588	265866	137287
		102	0*					
SA082218.D	123704.02	102	97	98	99	326467	264785	141717
		101	0*					
SA082219.D	123704.02	102	96	100	99	342177	274408	146777
		102	0*					
SA082220.D	123704.03	98	100	98	97	337895	268113	137359
		103	0*					
SA082221.D	123704.04	98	99	99	98	329307	260841	133790
		102	0*					
SA082222.D	123704.05	99	103	99	98	326374	262224	135545
		102	0*					

3A082223.D LCS 20	103	98	99	100	326175	264476	143058
	101	0*					
3A082224.DtLCSD 20	102	98	99	100	343058	277201	149184
	102	0*					

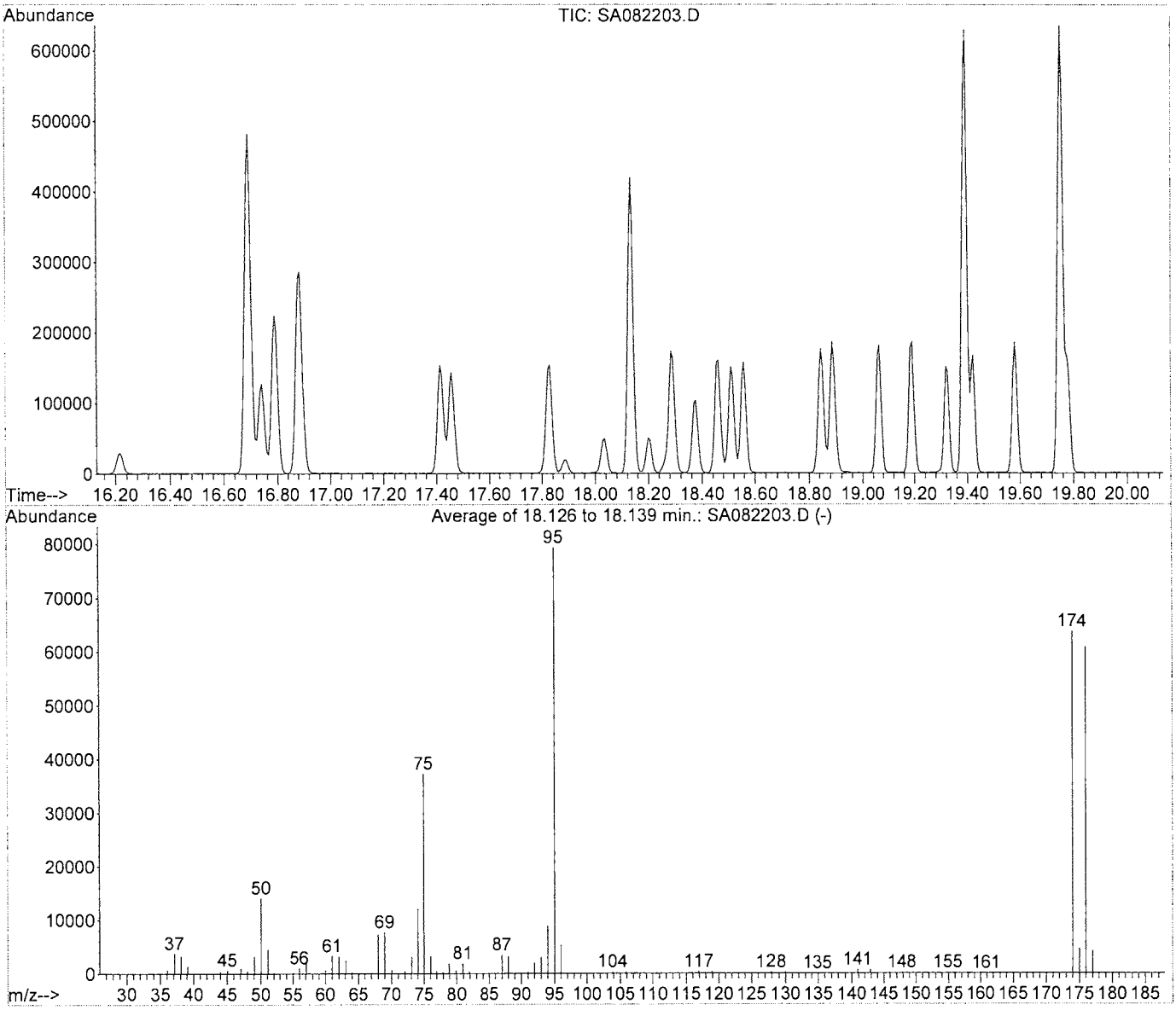
t - fails 12hr time check * - fails criteria 2,5 DBT Not included in AQ

Created: Thu Sep 05 15:09:47 2013 VOAMS5

KNC 090513

LCSD 20 was outside 12 hr. window due to Centurion issue.
It passes BFB tune method criteria.

Data File : W:\1\DATA\AUG13\AUG2213\SA082203.D Vial: 3
Acq On : 22 Aug 2013 8:47 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2713

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	14131	PASS
75	95	30	60	47.0	37304	PASS
95	95	100	100	100.0	79344	PASS
96	95	5	9	6.7	5291	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.4	63762	PASS
175	174	5	9	7.2	4613	PASS
176	174	95	101	95.4	60800	PASS
177	176	5	9	6.8	4115	PASS

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082204.D Vial: 4
Acq On : 22 Aug 2013 9:22 am Operator: BAM
Sample : BlnkA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:11:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

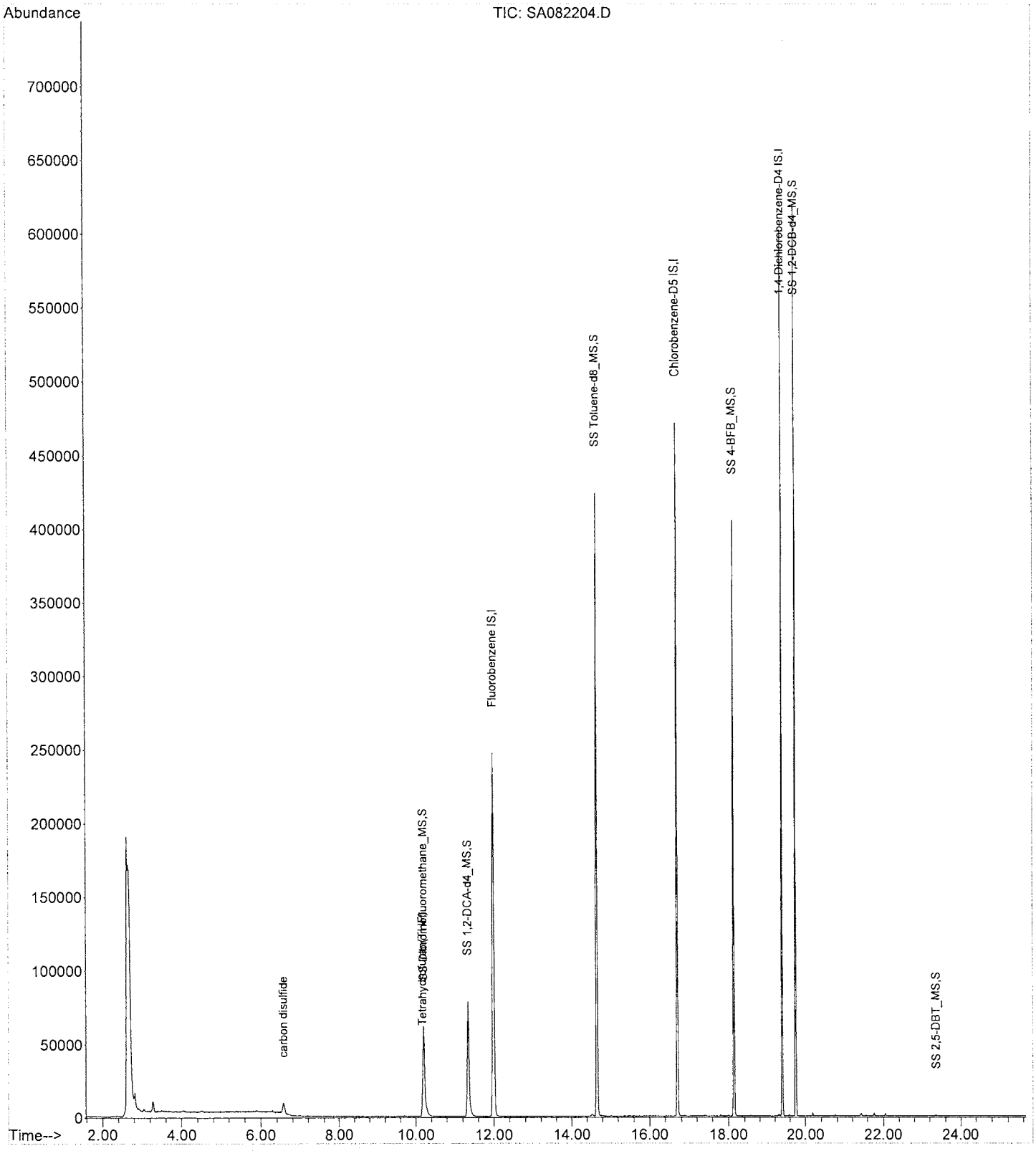
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334983	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	263391	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137346	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.21	111	77250	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.89%			
35) SS 1,2-DCA-d4_MS	11.33	65	94509	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.29%			
48) SS Toluene-d8_MS	14.65	98	333194	9.97	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.71%			
65) SS 4-BFB_MS	18.13	95	128432	9.82	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.17%			
83) SS 1,2-DCB-d4_MS	19.75	152	138060	10.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.69%			
90) SS 2,5-DBT_MS	23.36	250	257	2.77	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.94%#			
Target Compounds						Qvalue
16) carbon disulfide	6.57	76	12447	0.500	ug/L #	80
29) Tetrahydrofuran(THF)	10.17	42	538	0.213	ug/L #	38

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082204.D Vial: 4
Acq On : 22 Aug 2013 9:22 am Operator: BAM
Sample : BlnkA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:11 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	104	0.00
2		dichlorodifluoromethane	20.000	17.186	14.1	97	0.00
3	P	chloromethane	20.000	17.515	12.4	99	0.00
4	C	vinyl chloride	20.000	18.405	8.0	100	0.01
5		bromomethane	20.000	18.607	7.0	103	0.02
6		chloroethane	20.000	18.304	8.5	100	0.02
7		trichlorofluoromethane	20.000	18.141	9.3	99	0.01
8		diethyl ether	20.000	18.136	9.3	99	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	18.273	8.6	100	0.01
10		acrolein	20.000	21.571	-7.9	112	0.00
11		acetone	20.000	17.370	13.1	95	-0.02
12	CM	1,1-dichloroethene	20.000	18.294	8.5	96	0.01
13		tert-Butyl Alcohol(TBA)	100.000	89.179	10.8	94	0.00
14		Iodomethane	20.000	16.268	18.7	103	0.00
15		methylene chloride	20.000	19.134	4.3	98	0.00
16		carbon disulfide	20.000	18.379	8.1	97	0.01
17		acrylonitrile	20.000	19.104	4.5	104	-0.02
18		Methyl-t-butyl ether(MTBE)	40.000	36.434	8.9	98	-0.01
19		trans-1,2-dichloroethene	20.000	19.498	2.5	99	0.00
20		hexane	20.000	19.040	4.8	104	0.00
21		Isopropyl ether(DIPE)	20.000	19.155	4.2	97	-0.02
22		vinyl acetate	20.000	19.097	4.5	99	0.00
23	P	1,1-dichloroethane	20.000	19.312	3.4	98	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	18.765	6.2	96	-0.01
25		2,2-dichloropropane	20.000	19.189	4.1	94	0.00
26		cis-1,2-dichloroethene	20.000	19.263	3.7	97	0.00
27		2-butanone(MEK)	20.000	17.552	12.2	102	-0.02
28		bromochloromethane	20.000	19.175	4.1	99	0.00
29		Tetrahydrofuran(THF)	20.000	17.510	12.4	98	-0.01
30	C	chloroform	20.000	19.430	2.9	100	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.055	-0.5	103	0.00
32		1,1,1-trichloroethane	20.000	18.604	7.0	94	0.00
33		carbon tetrachloride	20.000	18.609	7.0	93	0.00
34		1,1-dichloropropene	20.000	19.296	3.5	98	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.722	2.8	101	0.00
36		tert-amyl methyl ether(TAME	20.000	18.478	7.6	95	-0.01
37	M	benzene	20.000	19.557	2.2	98	-0.01
38		1,2-dichloroethane	20.000	18.999	5.0	95	-0.01
39	M	trichloroethene	20.000	18.320	8.4	98	0.00
40	C	1,2-dichloropropane	20.000	19.399	3.0	98	0.00
41		1,4-dioxaneV	40.000	42.344	-5.9	100	-0.02
42		dibromomethane	20.000	19.034	4.8	98	0.00
43		bromodichloromethane	20.000	18.840	5.8	96	0.00
44		2-Chloroethoxyethene	20.000	16.352	18.2	113	-0.01
45		4-methyl-2-pentanone(MIBK)	20.000	18.530	7.3	103	-0.01
46		cis-1,3-dichloropropene	20.000	19.356	3.2	97	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	104	0.00
48	S	SS Toluene-d8_MS	10.000	9.962	0.4	104	0.00
49	CM	toluene	20.000	19.592	2.0	98	-0.01
50		trans-1,3-dichloropropene	20.000	19.145	4.3	95	0.00
51		1,1,2-trichloroethane	20.000	19.187	4.1	99	0.00
52		2-hexanone	20.000	17.832	10.8	100	-0.02
53		tetrachloroethene	20.000	18.398	8.0	97	0.00
54		1,3-dichloropropane	20.000	18.427	7.9	98	0.00
55		dibromochloromethane	20.000	16.990	15.1	94	0.00
56		1,2-dibromoethane	20.000	19.138	4.3	98	0.00

57	PM	chlorobenzene	20.000	19.510	2.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	20.133	-0.7	95	0.00
59	C	ethylbenzene	20.000	19.703	1.5	97	-0.01
60		mp-xylene	40.000	38.395	4.0	98	-0.01
61		o-xylene	20.000	19.777	1.1	97	-0.01
62		styrene	20.000	20.111	-0.6	96	-0.01
63	P	bromoform	20.000	15.797	21.0#	91	0.00
64		iso-propylbenzene	20.000	20.078	-0.4	96	0.00
65	S	SS 4-BFB_MS	10.000	10.090	-0.9	105	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000	0.0	105	0.00
67		bromobenzene	20.000	18.890	5.5	96	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.426	2.9	98	0.00
69		1,2,3-trichloropropane	20.000	18.436	7.8	96	0.00
70		trans-1,4-dichloro-2-butene	20.000	16.600	17.0	94	-0.01
71		n-propylbenzene	20.000	20.057	-0.3	97	-0.01
72		2-chlorotoluene	20.000	19.294	3.5	96	-0.01
73		4-chlorotoluene	20.000	19.652	1.7	96	-0.01
74		1,3,5-trimethylbenzene	20.000	19.727	1.4	96	-0.01
75		tert-butylbenzene	20.000	19.628	1.9	96	-0.01
76		1,2,4-trimethylbenzene	20.000	19.901	0.5	96	-0.01
77		sec-butylbenzene	20.000	20.090	-0.4	97	0.00
78		1,3-dichlorobenzeneV	20.000	19.357	3.2	96	0.00
79		p-isopropyltoluene	20.000	20.250	-1.3	96	0.00
80		1,4-dichlorobenzeneV	20.000	19.571	2.1	97	-0.01
81		1,2-dichlorobenzeneV	20.000	19.330	3.4	96	0.00
82		n-butylbenzene	20.000	20.315	-1.6	96	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	9.966	0.3	105	0.00
84		1,2-dibromo-3-chloropropane	20.000	16.462	17.7	94	0.00
85		1,3,5-trichlorobenzV	20.000	18.864	5.7	95	0.00
86		1,2,4-trichlorobenzV	20.000	18.694	6.5	96	-0.01
87		hexachlorobutadieneV	20.000	18.110	9.5	96	-0.01
88		naphthaleneV	20.000	19.276	3.6	96	-0.01
89		1,2,3-trichlorobenzV	20.000	18.583	7.1	96	-0.01
90	S	SS 2,5-DBT_MS	20.000	16.925	15.4	93	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA081909.D 5VID0819.M Fri Aug 23 13:15:14 2013

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	1.000	1.000	0.0	104	0.00
2		dichlorodifluoromethane	0.319	0.274	14.1	97	0.00
3	P	chloromethane	0.284	0.249	12.3	99	0.00
4	C	vinyl chloride	0.149	0.117	21.5#	100	0.01
5		bromomethane	0.152	0.141	7.2	103	0.02
6		chloroethane	0.175	0.160	8.6	100	0.02
7		trichlorofluoromethane	0.376	0.341	9.3	99	0.01
8		diethyl ether	0.197	0.178	9.6	99	0.00
9		1,1,2-Trichlorotrifluoroeth	0.259	0.237	8.5	100	0.01
10		acrolein	0.021	0.023	-9.5	112	0.00
11		acetone	0.061	0.053	13.1	95	-0.02
12	CM	1,1-dichloroethene	0.247	0.226	8.5	96	0.01
13		tert-Butyl Alcohol(TBA)	0.021	0.019	9.5	94	0.00
14		Iodomethane	0.275	0.276	-0.4	103	0.00
15		methylene chloride	0.262	0.251	4.2	98	0.00
16		carbon disulfide	0.744	0.683	8.2	97	0.01
17		acrylonitrile	0.108	0.104	3.7	104	-0.02
18		Methyl-t-butyl ether(MTBE)	0.690	0.628	9.0	98	-0.01
19		trans-1,2-dichloroethene	0.267	0.260	2.6	99	0.00
20		hexane	0.413	0.393	4.8	104	0.00
21		Isopropyl ether(DIPE)	0.925	0.886	4.2	97	-0.02
22		vinyl acetate	0.475	0.453	4.6	99	0.00
23	P	1,1-dichloroethane	0.491	0.474	3.5	98	0.00
24		Ethyl-t-butyl ether(ETBE)	0.817	0.767	6.1	96	-0.01
25		2,2-dichloropropane	0.372	0.357	4.0	94	0.00
26		cis-1,2-dichloroethene	0.384	0.370	3.6	97	0.00
27		2-butanone(MEK)	0.112	0.098	12.5	102	-0.02
28		bromochloromethane	0.141	0.135	4.3	99	0.00
29		Tetrahydrofuran(THF)	0.075	0.066	12.0	98	-0.01
30	C	chloroform	0.474	0.461	2.7	100	0.00
31	S	SS Dibromofluoromethane_MS	0.236	0.237	-0.4	103	0.00
32		1,1,1-trichloroethane	0.396	0.369	6.8	94	0.00
33		carbon tetrachloride	0.339	0.316	6.8	93	0.00
34		1,1-dichloropropene	0.391	0.377	3.6	98	0.00
35	S	SS 1,2-DCA-d4_MS	0.281	0.274	2.5	101	0.00
36		tert-amyl methyl ether(TAME	0.717	0.663	7.5	95	-0.01
37	M	benzene	1.119	1.094	2.2	98	-0.01
38		1,2-dichloroethane	0.378	0.359	5.0	95	-0.01
39	M	trichloroethene	0.302	0.277	8.3	98	0.00
40	C	1,2-dichloropropane	0.282	0.273	3.2	98	0.00
41		1,4-dioxaneV	0.003	0.003	0.0	100	-0.02
42		dibromomethane	0.160	0.152	5.0	98	0.00
43		bromodichloromethane	0.336	0.317	5.7	96	0.00
44		2-Chloroethoxyethene	0.041	0.029	29.3#	113	-0.01
45		4-methyl-2-pentanone(MIBK)	0.088	0.082	6.8	103	-0.01
46		cis-1,3-dichloropropene	0.404	0.391	3.2	97	0.00
47	I	Chlorobenzene-D5 IS	1.000	1.000	0.0	104	0.00
48	S	SS Toluene-d8_MS	1.269	1.264	0.4	104	0.00
49	CM	toluene	1.535	1.504	2.0	98	-0.01
50		trans-1,3-dichloropropene	0.473	0.453	4.2	95	0.00
51		1,1,2-trichloroethane	0.242	0.233	3.7	99	0.00
52		2-hexanone	0.195	0.174	10.8	100	-0.02
53		tetrachloroethene	0.423	0.389	8.0	97	0.00
54		1,3-dichloropropane	0.535	0.493	7.9	98	0.00
55		dibromochloromethane	0.303	0.286	5.6	94	0.00
56		1,2-dibromoethane	0.305	0.292	4.3	98	0.00

57	PM	chlorobenzene	1.044	1.018	2.5	97	0.00
58		1,1,1,2-tetrachloroethane	0.318	0.320	-0.6	95	0.00
59	C	ethylbenzene	1.760	1.734	1.5	97	-0.01
60		mp-xylene	0.728	0.698	4.1	98	-0.01
61		o-xylene	0.679	0.672	1.0	97	-0.01
62		styrene	1.120	1.126	-0.5	96	-0.01
63	P	bromoform	0.177	0.159	10.2	91	0.00
64		iso-propylbenzene	1.609	1.615	-0.4	96	0.00
65	S	SS 4-BFB_MS	0.497	0.501	-0.8	105	0.00
66	I	1,4-Dichlorobenzene-D4 IS	1.000	1.000	0.0	105	0.00
67		bromobenzene	0.834	0.787	5.6	96	0.00
68	P	1,1,2,2-tetrachloroethane	0.665	0.646	2.9	98	0.00
69		1,2,3-trichloropropane	0.212	0.196	7.5	96	0.00
70		trans-1,4-dichloro-2-butene	0.129	0.121	6.2	94	-0.01
71		n-propylbenzene	3.769	3.780	-0.3	97	-0.01
72		2-chlorotoluene	2.343	2.260	3.5	96	-0.01
73		4-chlorotoluene	2.349	2.309	1.7	96	-0.01
74		1,3,5-trimethylbenzene	2.682	2.646	1.3	96	-0.01
75		tert-butylbenzene	2.381	2.336	1.9	96	-0.01
76		1,2,4-trimethylbenzene	2.734	2.720	0.5	96	-0.01
77		sec-butylbenzene	3.312	3.327	-0.5	97	0.00
78		1,3-dichlorobenzeneV	1.578	1.527	3.2	96	0.00
79		p-isopropyltoluene	2.827	2.862	-1.2	96	0.00
80		1,4-dichlorobenzeneV	1.574	1.540	2.2	97	-0.01
81		1,2-dichlorobenzeneV	1.471	1.422	3.3	96	0.00
82		n-butylbenzene	2.404	2.442	-1.6	96	0.00
83	S	SS 1,2-DCB-d4_MS	0.998	0.995	0.3	105	0.00
84		1,2-dibromo-3-chloropropane	0.122	0.111	9.0	94	0.00
85		1,3,5-trichlorobenzV	0.929	0.876	5.7	95	0.00
86		1,2,4-trichlorobenzV	0.786	0.735	6.5	96	-0.01
87		hexachlorobutadieneV	0.352	0.319	9.4	96	-0.01
88		naphthaleneV	1.984	1.912	3.6	96	-0.01
89		1,2,3-trichlorobenzV	0.678	0.630	7.1	96	-0.01
90	S	SS 2,5-DBT_MS	0.198	0.179	9.6	93	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 1

SA081909.D 5VID0819.M Fri Aug 23 13:16:20 2013

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14:53 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	343104	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	273916	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	148868	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	81276	10.06	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.55%			
35) SS 1,2-DCA-d4_MS	11.33	65	93840	9.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.22%			
48) SS Toluene-d8_MS	14.65	98	346206	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.62%			
65) SS 4-BFB_MS	18.13	95	137268	10.09	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.90%			
83) SS 1,2-DCB-d4_MS	19.75	152	148109	9.97	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.66%			
90) SS 2,5-DBT_MS	23.36	250	53253	16.93	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 42.31%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	187943	17.186	ug/L	100
3) chloromethane	3.19	50	170806	17.515	ug/L	100
4) vinyl chloride	3.34	62	80592	18.405	ug/L	100
5) bromomethane	3.99	94	97016	18.607	ug/L	98
6) chloroethane	4.11	64	109999	18.304	ug/L	98
7) trichlorofluoromethane	4.52	101	233815	18.141	ug/L	99
8) diethyl ether	5.02	59	122463	18.136	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162405	18.273	ug/L	100
10) acrolein	5.27	56	15458	21.571	ug/L	95
11) acetone	5.39	43	36240	17.370	ug/L	94
12) 1,1-dichloroethene	5.61	96	155346	18.294	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65110	89.179	ug/L	99
14) Iodomethane	6.20	142	189400	16.268	ug/L #	100
15) methylene chloride	6.55	84	172045	19.134	ug/L	100
16) carbon disulfide	6.57	76	468845	18.379	ug/L	100
17) acrylonitrile	6.81	53	71119	19.104	ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	862105	36.434	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	178338	19.498	ug/L	100
20) hexane	7.28	57	269487	19.040	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	608005	19.155	ug/L	100
22) vinyl acetate	8.05	43	310965	19.097	ug/L	100
23) 1,1-dichloroethane	8.05	63	325490	19.312	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.68	59	526106	18.765	ug/L	99
25) 2,2-dichloropropane	9.24	77	244794	19.189	ug/L	100
26) cis-1,2-dichloroethene	9.36	61	254057	19.263	ug/L	98
27) 2-butanone(MEK)	8.96	43	67395	17.552	ug/L	99
28) bromochloromethane	10.08	128	92810	19.175	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	45216	17.510	ug/L	96
30) chloroform	9.71	83	316023	19.430	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	253051	18.604	ug/L	100
33) carbon tetrachloride	11.17	117	216572	18.609	ug/L	99
34) 1,1-dichloropropene	10.96	75	258547	19.296	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	454839	18.478	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA082205.D 5VID0819.M Fri Aug 30 10:41:05 2013

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14:53 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

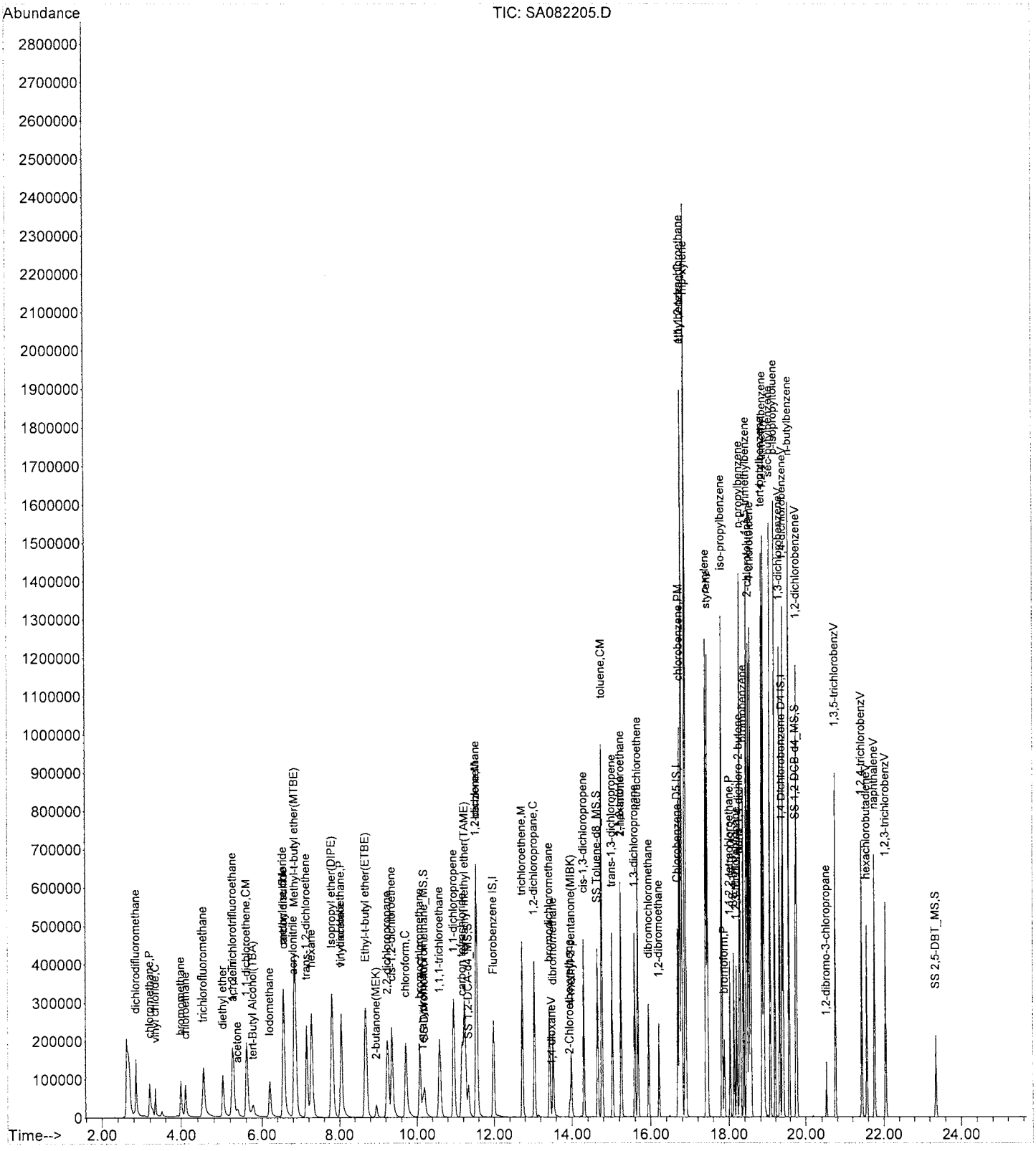
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
37)	benzene	11.55	78	750876	19.557 ug/L		99
38)	1,2-dichloroethane	11.53	62	246667	18.999 ug/L		99
39)	trichloroethene	12.73	95	190021	18.320 ug/L		99
40)	1,2-dichloropropane	13.05	63	187412	19.399 ug/L		98
41)	1,4-dioxaneV	13.49	88	3947	42.344 ug/L		99
42)	dibromomethane	13.53	93	104632	19.034 ug/L		99
43)	bromodichloromethane	13.44	83	217378	18.840 ug/L		99
44)	2-Chloroethoxyethene	13.94	63	19943	16.352 ug/L		80
45)	4-methyl-2-pentanone(MIBK)	13.99	58	56053	18.530 ug/L		98
46)	cis-1,3-dichloropropene	14.30	75	268604	19.356 ug/L		98
49)	toluene	14.77	91	823913	19.592 ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	248082	19.145 ug/L		99
51)	1,1,2-trichloroethane	15.25	83	127408	19.187 ug/L		98
52)	2-hexanone	15.25	43	95223	17.832 ug/L		99
53)	tetrachloroethene	15.67	166	213035	18.398 ug/L		99
54)	1,3-dichloropropane	15.60	76	269915	18.427 ug/L		99
55)	dibromochloromethane	15.95	129	156949	16.990 ug/L	#	100
56)	1,2-dibromoethane	16.22	107	159902	19.138 ug/L		99
57)	chlorobenzene	16.74	112	557907	19.510 ug/L		100
58)	1,1,1,2-tetrachloroethane	16.79	131	175345	20.133 ug/L		99
59)	ethylbenzene	16.79	91	949736	19.703 ug/L		100
60)	mp-xylene	16.89	106	765235	38.395 ug/L		99
61)	o-xylene	17.41	106	368063	19.777 ug/L		99
62)	styrene	17.46	104	616867	20.111 ug/L		100
63)	bromoform	17.89	173	87329	15.797 ug/L		100
64)	iso-propylbenzene	17.83	105	884818	20.078 ug/L		100
67)	bromobenzene	18.38	156	234413	18.890 ug/L		100
68)	1,1,2,2-tetrachloroethane	18.04	83	192290	19.426 ug/L		99
69)	1,2,3-trichloropropane	18.21	110	58249	18.436 ug/L		98
70)	trans-1,4-dichloro-2-buten	18.27	75	36012	16.600 ug/L		99
71)	n-propylbenzene	18.28	91	1125335	20.057 ug/L		100
72)	2-chlorotoluene	18.51	91	673012	19.294 ug/L		100
73)	4-chlorotoluene	18.56	91	687336	19.652 ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	787777	19.727 ug/L		99
75)	tert-butylbenzene	18.84	119	695619	19.628 ug/L		100
76)	1,2,4-trimethylbenzene	18.89	105	809953	19.901 ug/L		100
77)	sec-butylbenzene	19.06	105	990432	20.090 ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	454783	19.357 ug/L		100
79)	p-isopropyltoluene	19.19	119	852267	20.250 ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	458650	19.571 ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	423294	19.330 ug/L		100
82)	n-butylbenzene	19.58	91	727095	20.315 ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	32979	16.462 ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	260818	18.864 ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	218867	18.694 ug/L		100
87)	hexachlorobutadieneV	21.56	225	95024	18.110 ug/L		99
88)	naphthaleneV	21.76	128	569394	19.276 ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	187569	18.583 ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16:41 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334364	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	261227	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	138451	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77089	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.86%			
35) SS 1,2-DCA-d4_MS	11.33	65	93049	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.92%			
48) SS Toluene-d8_MS	14.65	98	332260	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.25%			
65) SS 4-BFB_MS	18.13	95	129411	9.97	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.74%			
83) SS 1,2-DCB-d4_MS	19.75	152	138195	10.00	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.99%			
90) SS 2,5-DBT_MS	23.36	250	4921	4.11	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 10.29%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	17930	1.682	ug/L	98
3) chloromethane	3.19	50	17852	1.878	ug/L	98
4) vinyl chloride	3.34	62	9079	1.619	ug/L	99
5) bromomethane	4.00	94	9345	1.839	ug/L	99
6) chloroethane	4.11	64	10675	1.823	ug/L	95
7) trichlorofluoromethane	4.52	101	21955	1.748	ug/L	96
8) diethyl ether	5.03	59	11588	1.761	ug/L	97
9) 1,1,2-Trichlorotrifluoroet	5.27	101	15616	1.803	ug/L	98
10) acrolein	5.27	56	1962	2.809	ug/L #	50
11) acetone	5.39	43	4099	2.016	ug/L	96
12) 1,1-dichloroethene	5.61	96	12781	1.544	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.76	59	6090	8.559	ug/L	91
14) Iodomethane	6.20	142	11220	0.770	ug/L #	98
15) methylene chloride	6.55	84	17589	2.007	ug/L	99
16) carbon disulfide	6.57	76	47035	1.892	ug/L #	93
17) acrylonitrile	6.82	53	7126	1.964	ug/L	100
18) Methyl-t-butyl ether(MTBE)	6.85	73	77262	3.351	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	14830	1.664	ug/L	99
20) hexane	7.27	57	25620	1.857	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	50936	1.647	ug/L	98
22) vinyl acetate	8.05	43	27380	1.725	ug/L	99
23) 1,1-dichloroethane	8.04	63	27098	1.650	ug/L	97
24) Ethyl-t-butyl ether(ETBE)	8.69	59	44411	1.625	ug/L	98
25) 2,2-dichloropropane	9.25	77	18768	1.510	ug/L	95
26) cis-1,2-dichloroethene	9.37	61	21403	1.665	ug/L	100
27) 2-butanone(MEK)	8.97	43	6842	1.828	ug/L	97
28) bromochloromethane	10.07	128	7980	1.692	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	5073	2.016	ug/L	95
30) chloroform	9.71	83	26036	1.643	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	20204	1.524	ug/L	99
33) carbon tetrachloride	11.17	117	16083	1.418	ug/L	100
34) 1,1-dichloropropene	10.96	75	21139	1.619	ug/L	99
36) tert-amyl methyl ether(TAM	11.25	73	37619	1.568	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16:41 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

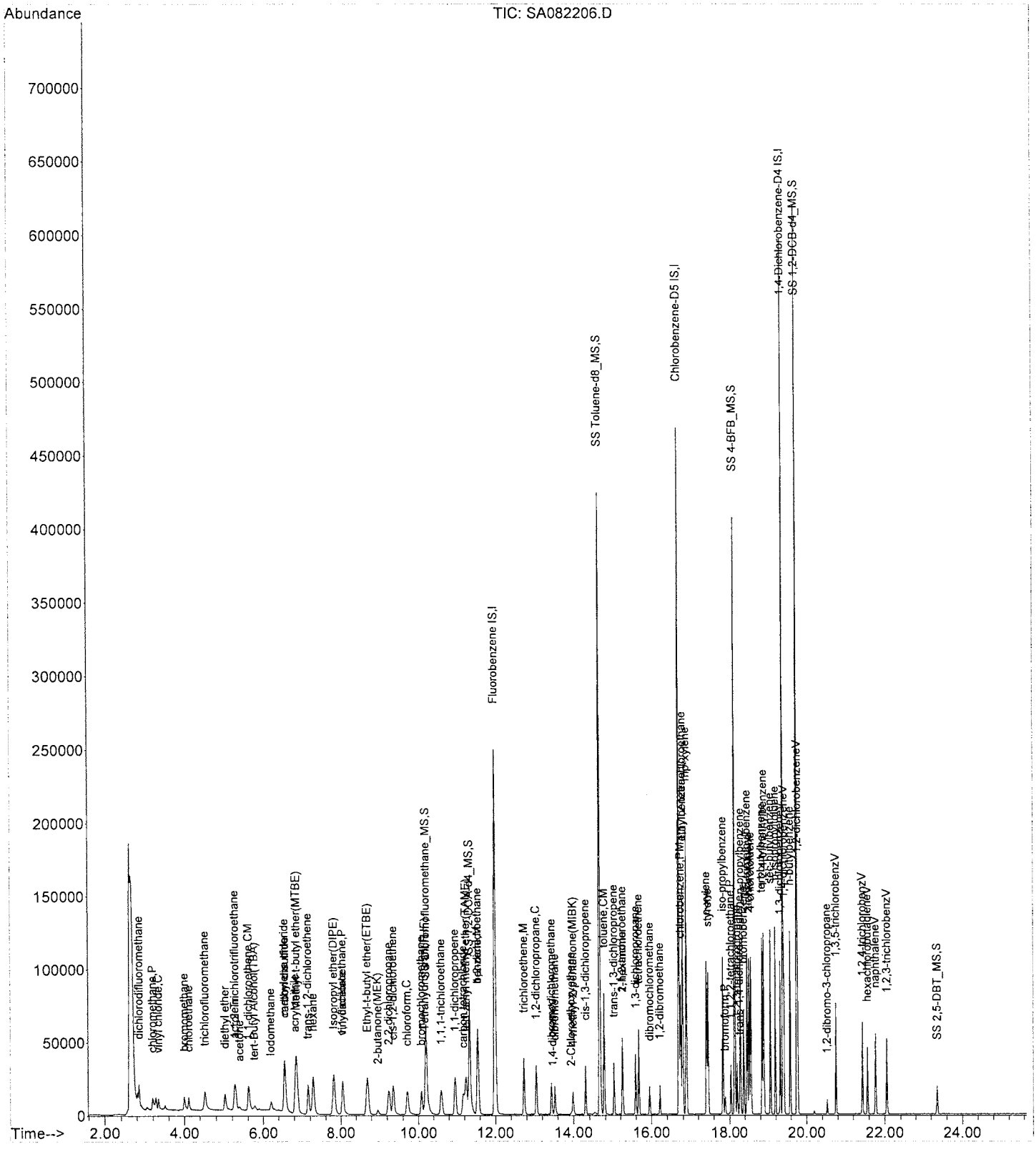
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	benzene	11.55	78	64788	1.732	ug/L		100
38)	1,2-dichloroethane	11.54	62	21527	1.701	ug/L		99
39)	trichloroethene	12.73	95	15944	1.577	ug/L		99
40)	1,2-dichloropropane	13.05	63	15837	1.682	ug/L		98
41)	1,4-dioxaneV	13.48	88	173	1.904	ug/L	#	72
42)	dibromomethane	13.53	93	9137	1.706	ug/L		98
43)	bromodichloromethane	13.44	83	15927	1.416	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	870	6.730	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	4913	1.667	ug/L		96
46)	cis-1,3-dichloropropene	14.30	75	19138	1.415	ug/L		98
49)	toluene	14.77	91	70050	1.747	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	17810	1.441	ug/L		98
51)	1,1,2-trichloroethane	15.25	83	10459	1.652	ug/L		99
52)	2-hexanone	15.25	43	8905	1.749	ug/L		98
53)	tetrachloroethene	15.67	166	17582	1.592	ug/L		99
54)	1,3-dichloropropane	15.60	76	22594	1.617	ug/L		98
55)	dibromochloromethane	15.95	129	10240	1.510	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	12574	1.578	ug/L		99
57)	chlorobenzene	16.74	112	47883	1.756	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.78	131	12733	1.533	ug/L		97
59)	ethylbenzene	16.79	91	77890	1.694	ug/L		99
60)	mp-xylene	16.89	106	63008	3.315	ug/L		99
61)	o-xylene	17.41	106	29409	1.657	ug/L		98
62)	styrene	17.46	104	48284	1.651	ug/L		99
63)	bromoform	17.88	173	5125	2.257	ug/L		96
64)	iso-propylbenzene	17.83	105	70932	1.688	ug/L		99
67)	bromobenzene	18.38	156	19124	1.657	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	15195	1.651	ug/L	#	1
69)	1,2,3-trichloropropane	18.21	110	4707	1.602	ug/L		92
70)	trans-1,4-dichloro-2-buten	18.26	75	2256	1.981	ug/L	#	82
71)	n-propylbenzene	18.28	91	90683	1.738	ug/L		99
72)	2-chlorotoluene	18.51	91	56620	1.745	ug/L		100
73)	4-chlorotoluene	18.56	91	57016	1.753	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	63291	1.704	ug/L		100
75)	tert-butylbenzene	18.84	119	55940	1.697	ug/L		99
76)	1,2,4-trimethylbenzene	18.89	105	64894	1.714	ug/L		100
77)	sec-butylbenzene	19.06	105	79442	1.733	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	37959	1.737	ug/L		99
79)	p-isopropyltoluene	19.19	119	66535	1.700	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	38675	1.774	ug/L		95
81)	1,2-dichlorobenzeneV	19.77	146	35505	1.743	ug/L	#	80
82)	n-butylbenzene	19.58	91	56730	1.704	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	2189	2.316	ug/L		98
85)	1,3,5-trichlorobenzV	20.75	180	21433	1.667	ug/L		98
86)	1,2,4-trichlorobenzV	21.44	180	19046	1.749	ug/L		99
87)	hexachlorobutadieneV	21.56	225	8264	1.694	ug/L		99
88)	naphthaleneV	21.76	128	47450	1.727	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	16795	1.789	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082207.D Vial: 7
Acq On : 22 Aug 2013 11:06 am Operator: BAM
Sample : 123649.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329553	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	260372	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	136123	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76428	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.44%			
35) SS 1,2-DCA-d4_MS	11.33	65	93090	10.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.41%			
48) SS Toluene-d8_MS	14.66	98	329785	9.98	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.83%			
65) SS 4-BFB_MS	18.13	95	128511	9.94	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.37%			
83) SS 1,2-DCB-d4_MS	19.75	152	137791	10.14	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.40%			
90) SS 2,5-DBT_MS	23.36	250	451	2.83	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 7.08%#			
Target Compounds						Qvalue
6) chloroethane	4.11	64	19239	3.333	ug/L	96
8) diethyl ether	5.02	59	64680	9.973	ug/L #	81
11) acetone	5.38	43	5334	2.662	ug/L #	77
13) tert-Butyl Alcohol(TBA)	5.78	59	8933	12.738	ug/L #RL	79
16) carbon disulfide	6.57	76	11158	0.455	ug/L #	79
27) 2-butanone(MEK)	8.98	43	1236	0.335	ug/L #	64
29) Tetrahydrofuran(THF)	10.16	42	23787	9.590	ug/L	100
37) benzene	11.55	78	61087	1.656	ug/L	98
41) 1,4-dioxaneV	13.48	88	1487	16.609	ug/L #RL	82
49) toluene	14.77	91	11082	0.277	ug/L	99
57) chlorobenzene	16.74	112	363509	13.373	ug/L	100
64) iso-propylbenzene	17.83	105	55648	1.328	ug/L	99
70) trans-1,4-dichloro-2-buten	18.13	75	60999	29.961	ug/L #	2
71) n-propylbenzene	18.28	91	10393	0.203	ug/L	100
78) 1,3-dichlorobenzeneV	~~19.42~~	146	41495	~~1.932~~	ug/L	97
80) 1,4-dichlorobenzeneV	19.42	146	41495	1.936	ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	17512	0.875	ug/L #	21
88) naphthaleneV	21.76	128	10154	0.376	ug/L #	98

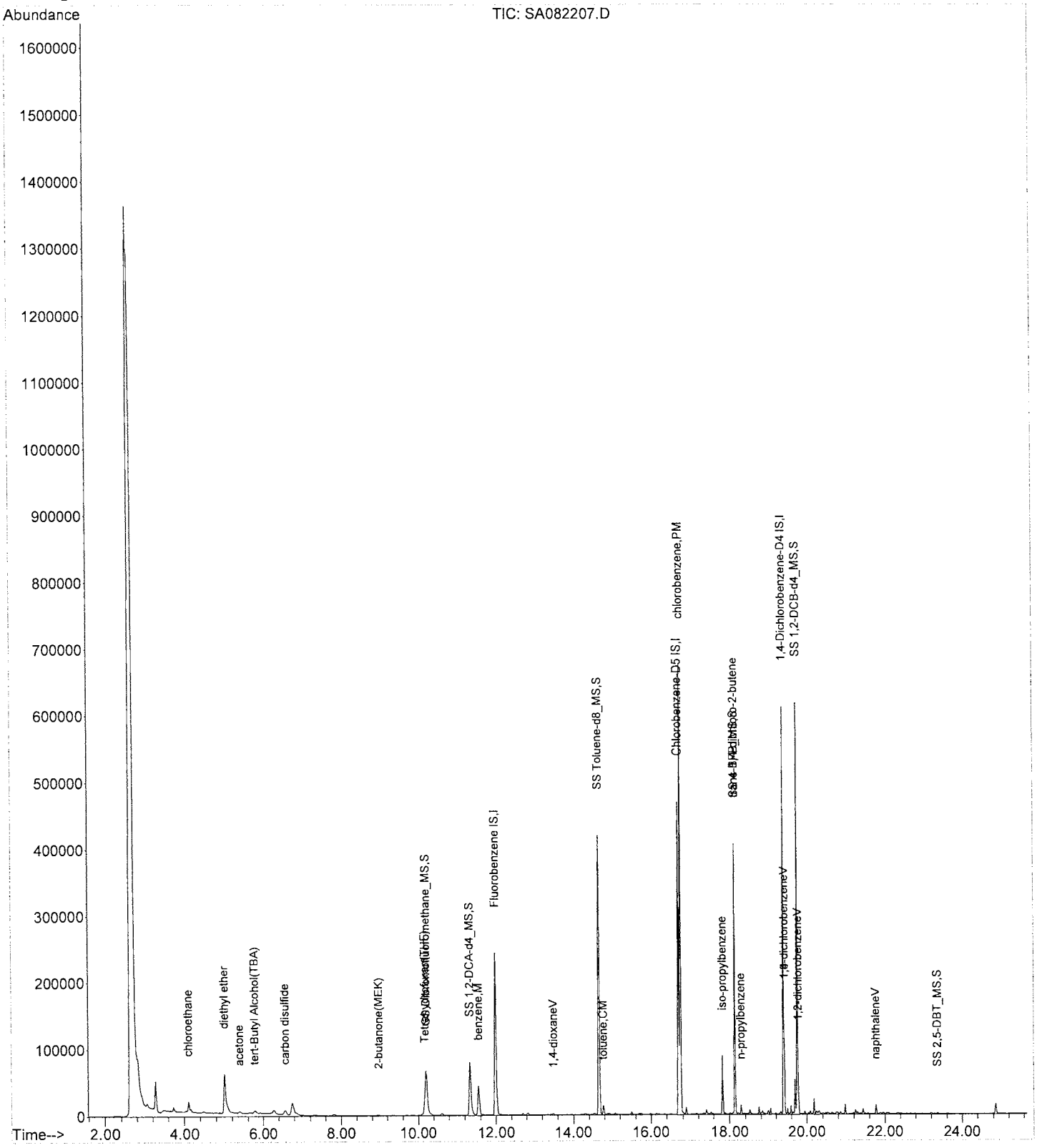
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082207.D 5VID0819.M Fri Aug 23 13:21:01 2013

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082207.D Vial: 7
Acq On : 22 Aug 2013 11:06 am Operator: BAM
Sample : 123649.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082208.D Vial: 8
Acq On : 22 Aug 2013 11:41 am Operator: BAM
Sample : 123649.01 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:04 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331669	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266923	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145044	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79409	10.16	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.63%			
35) SS 1,2-DCA-d4_MS	11.33	65	90453	9.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.94%			
48) SS Toluene-d8_MS	14.65	98	335651	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.12%			
65) SS 4-BFB_MS	18.13	95	131874	9.95	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.47%			
83) SS 1,2-DCB-d4_MS	19.75	152	144756	10.00	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.97%			
90) SS 2,5-DBT_MS	23.36	250	97	2.73	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.82%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	231178	21.869	ug/L	99
3) chloromethane	3.19	50	210735	22.355	ug/L	100
4) vinyl chloride	3.34	62	92936	22.067	ug/L	99
5) bromomethane	3.99	94	108356	21.499	ug/L	99
6) chloroethane	4.11	64	140052	24.108	ug/L	99
7) trichlorofluoromethane	4.52	101	260460	20.905	ug/L	100
8) diethyl ether	5.02	59	198889	30.470	ug/L	93
9) 1,1,2-Trichlorotrifluoroet	5.27	101	179448	20.886	ug/L	100
10) acrolein	5.27	56	15216	21.965	ug/L	85
11) acetone	5.39	43	47170	23.389	ug/L #	65
12) 1,1-dichloroethene	5.61	96	161597	19.686	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	69997	99.178	ug/L	97
14) Iodomethane	6.20	142	228596	20.370	ug/L #	99
15) methylene chloride	6.55	84	172540	19.851	ug/L	100
16) carbon disulfide	6.57	76	473512	19.202	ug/L	100
17) acrylonitrile	6.82	53	64010	17.788	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	451470	19.738	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	185179	20.944	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	616261	20.084	ug/L	99
22) vinyl acetate	8.05	43	172372	10.950	ug/L	99
23) 1,1-dichloroethane	8.04	63	335911	20.618	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	530714	19.582	ug/L	99
25) 2,2-dichloropropane	9.25	77	257208	20.857	ug/L	100
26) cis-1,2-dichloroethene	9.36	61	288122	22.599	ug/L	95
27) 2-butanone(MEK)	8.96	43	68452	18.442	ug/L	98
28) bromochloromethane	10.08	128	94289	20.152	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	71255	28.545	ug/L	97
30) chloroform	9.71	83	317068	20.167	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	268156	20.395	ug/L	100
33) carbon tetrachloride	11.17	117	230405	20.481	ug/L	99
34) 1,1-dichloropropene	10.96	75	260465	20.109	ug/L	98
36) tert-amyl methyl ether(TAM	11.23	73	471934	19.834	ug/L #	58
37) benzene	11.55	78	851787	22.950	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082208.D Vial: 8
Acq On : 22 Aug 2013 11:41 am Operator: BAM
Sample : 123649.01 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:04 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	245723	19.579 ug/L	99
39) trichloroethene	12.73	95	197541	19.701 ug/L	99
40) 1,2-dichloropropane	13.05	63	192972	20.664 ug/L	98
41) 1,4-dioxaneV	13.48	88	3993	44.314 ug/L #	84
42) dibromomethane	13.53	93	105196	19.796 ug/L	99
43) bromodichloromethane	13.44	83	212963	19.094 ug/L	100
44) 2-Chloroethoxyethene	13.98	63	97	~~6.321~~ ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	58292	19.935 ug/L	88
46) cis-1,3-dichloropropene	14.30	75	294030	21.919 ug/L	99
49) toluene	14.77	91	882195	21.528 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	250141	19.809 ug/L #	77
51) 1,1,2-trichloroethane	15.25	83	129622	20.032 ug/L	98
52) 2-hexanone	15.25	43	103078	19.809 ug/L	98
53) tetrachloroethene	15.67	166	234489	20.782 ug/L	99
54) 1,3-dichloropropane	15.60	76	275826	19.324 ug/L #	85
55) dibromochloromethane	15.95	129	161493	17.919 ug/L #	100
56) 1,2-dibromoethane	16.22	107	160416	19.702 ug/L	99
57) chlorobenzene	16.74	112	912365	32.741 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	179538	21.155 ug/L	99
59) ethylbenzene	16.79	91	1000361	21.296 ug/L	100
60) mp-xylene	16.89	106	800487	41.216 ug/L	99
61) o-xylene	17.41	106	381392	21.030 ug/L	99
62) styrene	17.46	104	649730	21.737 ug/L	100
63) bromoform	17.89	173	94252	17.349 ug/L #	92
64) iso-propylbenzene	17.83	105	1058146	24.640 ug/L	100
67) bromobenzene	18.38	156	238719	19.744 ug/L	99
68) 1,1,2,2-tetrachloroethane	18.03	83	189646	19.664 ug/L	99
69) 1,2,3-trichloropropane	18.21	110	58113	18.878 ug/L	100
70) trans-1,4-dichloro-2-buten	18.26	75	73137	33.598 ug/L #	83
71) n-propylbenzene	18.29	91	1199166	21.936 ug/L	100
72) 2-chlorotoluene	18.51	91	684613	20.144 ug/L	100
73) 4-chlorotoluene	18.56	91	704046	20.661 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	820309	21.083 ug/L	100
75) tert-butylbenzene	18.84	119	729380	21.124 ug/L	99
76) 1,2,4-trimethylbenzene	18.89	105	831506	20.970 ug/L	99
77) sec-butylbenzene	19.06	105	1032745	21.501 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	470450	20.552 ug/L	99
79) p-isopropyltoluene	19.19	119	896501	21.863 ug/L	100
80) 1,4-dichlorobenzeneV	19.42	146	506352	22.176 ug/L	99
81) 1,2-dichlorobenzeneV	19.78	146	443463	20.785 ug/L	99
82) n-butylbenzene	19.58	91	753210	21.600 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	34038	17.365 ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	279037	20.714 ug/L	100
86) 1,2,4-trichlorobenzV	21.44	180	223662	19.607 ug/L	99
87) hexachlorobutadieneV	21.56	225	92964	18.185 ug/L	99
88) naphthaleneV	21.76	128	589215	20.473 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	192449	19.569 ug/L	99

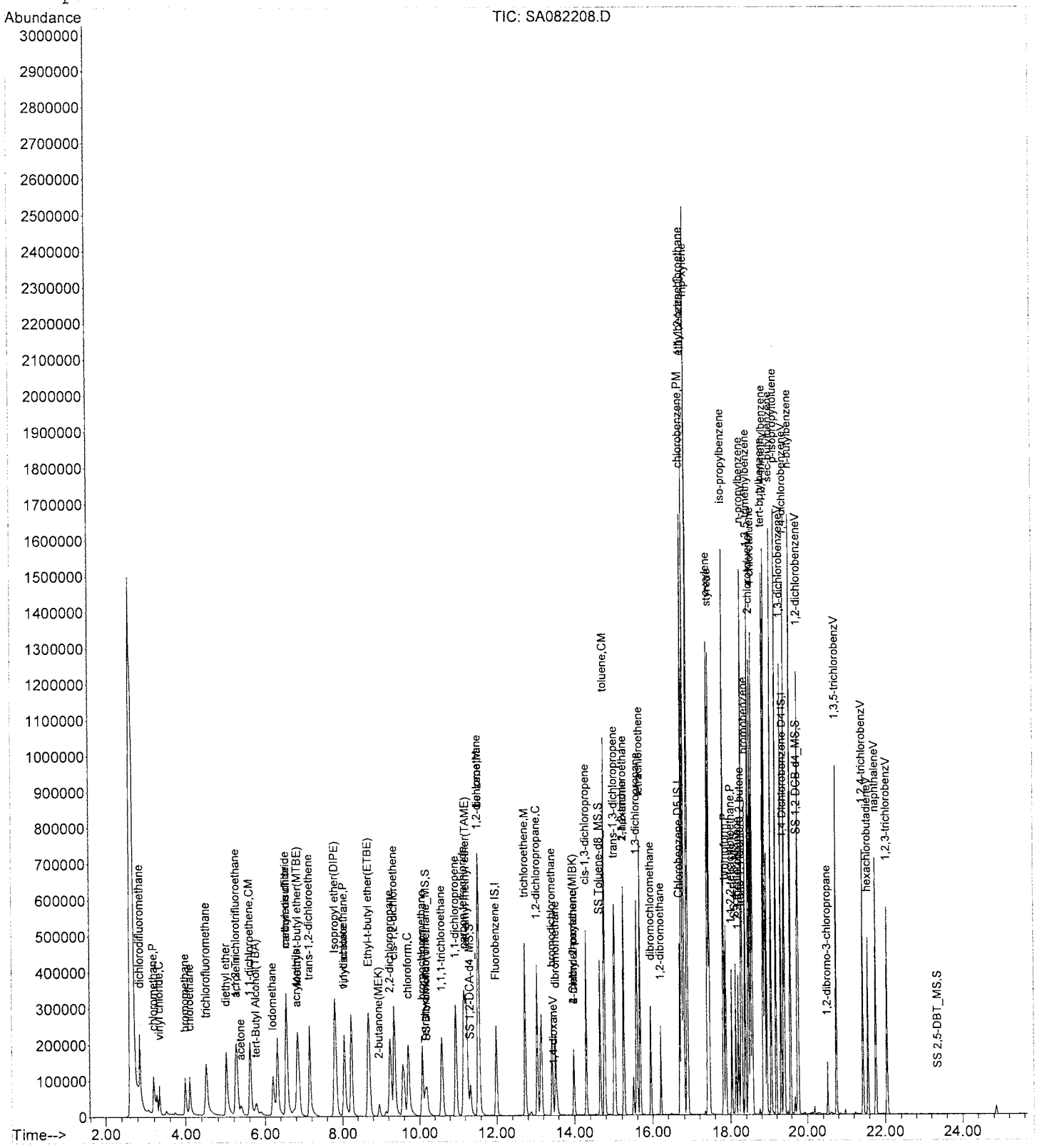
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082208.D 5VID0819.M Fri Aug 23 13:21:05 2013

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082208.D Vial: 8
Acq On : 22 Aug 2013 11:41 am Operator: BAM
Sample : 123649.01 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082209.D Vial: 9
Acq On : 22 Aug 2013 12:15 pm Operator: BAM
Sample : 123649.01 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:08 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	344302	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	276735	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	148707	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	82234	10.14	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.38%			
35) SS 1,2-DCA-d4_MS	11.33	65	93613	9.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.65%			
48) SS Toluene-d8_MS	14.65	98	347147	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.88%			
65) SS 4-BFB_MS	18.13	95	137936	10.04	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.35%			
83) SS 1,2-DCB-d4_MS	19.75	152	148833	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.26%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	239644	21.838	ug/L	99
3) chloromethane	3.19	50	218417	22.320	ug/L	100
4) vinyl chloride	3.34	62	96473	22.066	ug/L	99
5) bromomethane	3.99	94	115713	22.116	ug/L	98
6) chloroethane	4.11	64	145070	24.056	ug/L	99
7) trichlorofluoromethane	4.52	101	268737	20.778	ug/L	99
8) diethyl ether	5.02	59	203298	30.003	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	182135	20.421	ug/L	100
10) acrolein	5.27	56	16353	22.740	ug/L	92
11) acetone	5.39	43	45726	21.841	ug/L #	82
12) 1,1-dichloroethene	5.61	96	164141	19.262	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	71533	97.635	ug/L	99
14) Iodomethane	6.20	142	232056	19.914	ug/L #	99
15) methylene chloride	6.55	84	176901	19.606	ug/L	99
16) carbon disulfide	6.57	76	486961	19.023	ug/L	100
17) acrylonitrile	6.81	53	65567	17.552	ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.85	73	471508	19.857	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	190509	20.756	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	636204	19.973	ug/L	100
22) vinyl acetate	8.05	43	178908	10.949	ug/L	99
23) 1,1-dichloroethane	8.04	63	346063	20.462	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.68	59	551523	19.603	ug/L	100
25) 2,2-dichloropropane	9.25	77	262567	20.510	ug/L	100
26) cis-1,2-dichloroethene	9.35	61	295060	22.294	ug/L	95
27) 2-butanone(MEK)	8.96	43	72556	18.830	ug/L	99
28) bromochloromethane	10.08	128	97318	20.036	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	72146	27.842	ug/L	96
30) chloroform	9.71	83	324846	19.903	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	275201	20.162	ug/L	100
33) carbon tetrachloride	11.17	117	238215	20.398	ug/L	99
34) 1,1-dichloropropene	10.96	75	267570	19.900	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	487781	19.748	ug/L #	58
37) benzene	11.55	78	871415	22.617	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082209.D Vial: 9
Acq On : 22 Aug 2013 12:15 pm Operator: BAM
Sample : 123649.01 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:08 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	250091	19.195	ug/L		99
39)	trichloroethene	12.73	95	203296	19.531	ug/L		99
40)	1,2-dichloropropane	13.05	63	198598	20.486	ug/L		98
41)	1,4-dioxaneV	13.48	88	4112	43.961	ug/L		88
42)	dibromomethane	13.53	93	109076	19.773	ug/L		99
43)	bromodichloromethane	13.44	83	221931	19.168	ug/L		99
44)	2-Chloroethoxyethene	13.99	63	84	6.312	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	61285	20.189	ug/L		88
46)	cis-1,3-dichloropropene	14.30	75	304325	21.854	ug/L		97
49)	toluene	14.77	91	900822	21.203	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	260063	19.865	ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	134345	20.026	ug/L		98
52)	2-hexanone	15.25	43	109072	20.217	ug/L		99
53)	tetrachloroethene	15.67	166	239888	20.506	ug/L		98
54)	1,3-dichloropropane	15.60	76	285050	19.262	ug/L		86
55)	dibromochloromethane	15.95	129	168834	18.066	ug/L	#	99
56)	1,2-dibromoethane	16.22	107	165115	19.560	ug/L		100
57)	chlorobenzene	16.74	112	920859	31.874	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	182855	20.782	ug/L		99
59)	ethylbenzene	16.79	91	1023080	21.008	ug/L		100
60)	mp-xylene	16.89	106	818274	40.638	ug/L		99
61)	o-xylene	17.41	106	390594	20.774	ug/L		99
62)	styrene	17.46	104	665031	21.460	ug/L		99
63)	bromoform	17.89	173	98497	17.476	ug/L	#	92
64)	iso-propylbenzene	17.83	105	1084587	24.360	ug/L		100
67)	bromobenzene	18.38	156	244177	19.698	ug/L		99
68)	1,1,2,2-tetrachloroethane	18.04	83	195681	19.790	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	59540	18.865	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	75251	33.714	ug/L	#	83
71)	n-propylbenzene	18.28	91	1229738	21.942	ug/L		100
72)	2-chlorotoluene	18.51	91	702607	20.164	ug/L		100
73)	4-chlorotoluene	18.56	91	723553	20.710	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	841655	21.099	ug/L		99
75)	tert-butylbenzene	18.84	119	751470	21.227	ug/L		99
76)	1,2,4-trimethylbenzene	18.89	105	855924	21.054	ug/L		99
77)	sec-butylbenzene	19.06	105	1070332	21.734	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	480771	20.486	ug/L		99
79)	p-isopropyltoluene	19.19	119	926351	22.034	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	520907	22.251	ug/L		99
81)	1,2-dichlorobenzeneV	19.78	146	456050	20.849	ug/L		100
82)	n-butylbenzene	19.58	91	789107	22.072	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	35371	17.584	ug/L		98
85)	1,3,5-trichlorobenzV	20.75	180	292764	21.198	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	236683	20.237	ug/L		99
87)	hexachlorobutadieneV	21.56	225	99329	18.951	ug/L		99
88)	naphthaleneV	21.76	128	612531	20.759	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	203749	20.207	ug/L		99

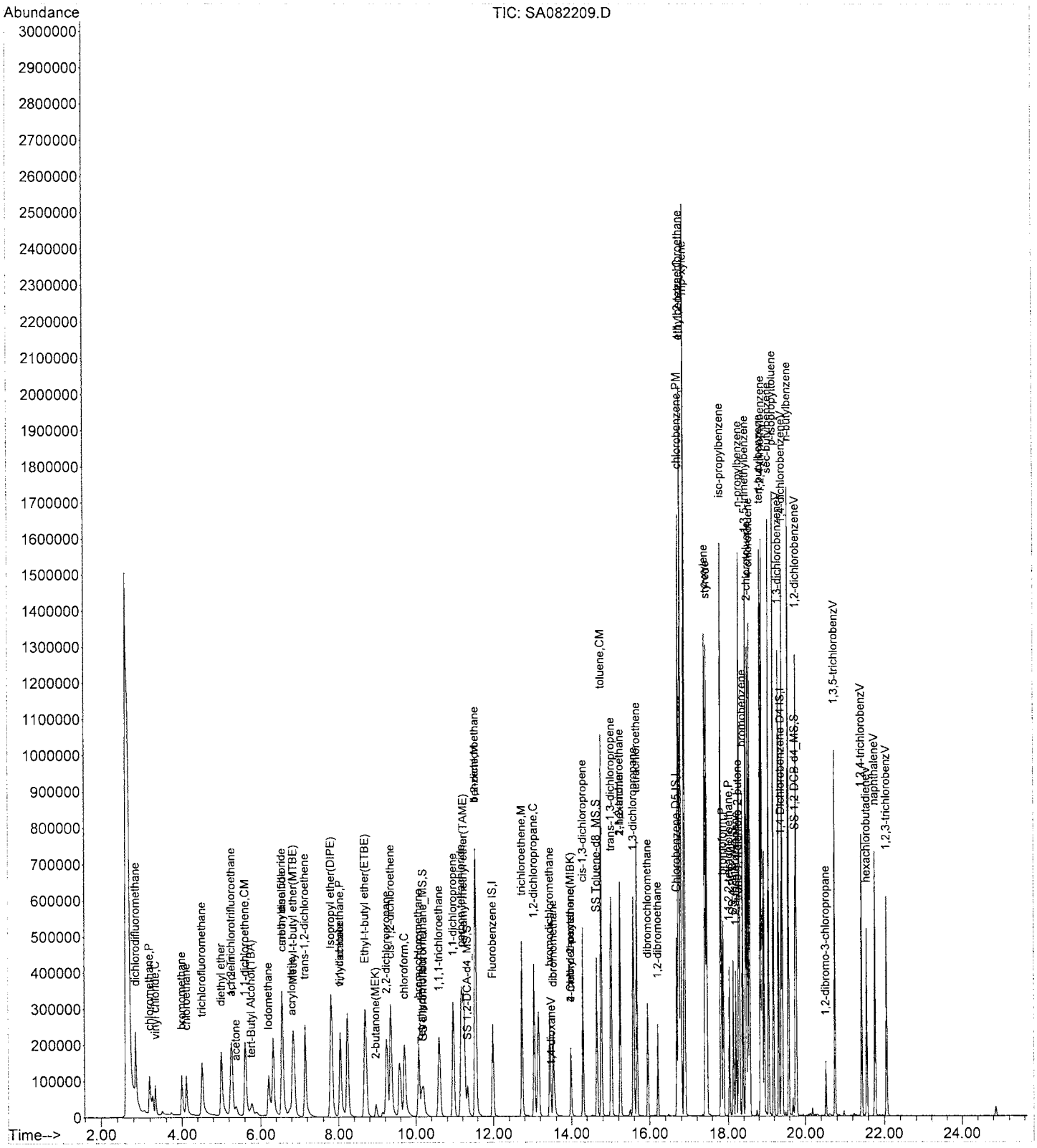
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082209.D 5VID0819.M Fri Aug 23 13:21:09 2013

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082209.D Vial: 9
Acq On : 22 Aug 2013 12:15 pm Operator: BAM
Sample : 123649.01 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082210.D Vial: 10
Acq On : 22 Aug 2013 12:50 pm Operator: BAM
Sample : 123649.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:12 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335374	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	263799	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137950	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77320	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.86%			
35) SS 1,2-DCA-d4_MS	11.33	65	93475	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.08%			
48) SS Toluene-d8_MS	14.65	98	334536	10.00	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.96%			
65) SS 4-BFB_MS	18.13	95	129464	9.88	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.81%			
83) SS 1,2-DCB-d4_MS	19.75	152	139594	10.14	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.36%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	39	Below Cal	#	42
6) chloroethane	4.11	64	20521	3.493	ug/L	98
8) diethyl ether	5.02	59	68282	10.345	ug/L #	85
10) acrolein	5.28	56	1020	1.456	ug/L #	12
11) acetone	5.39	43	7015	3.440	ug/L #	14
13) tert-Butyl Alcohol(TBA)	5.78	59	9146	12.816	ug/L #<RL	85
16) carbon disulfide	6.57	76	11425	0.458	ug/L	99
27) 2-butanone(MEK)	8.98	43	1282	0.342	ug/L #	59
29) Tetrahydrofuran(THF)	10.16	42	24924	9.874	ug/L	99
37) benzene	11.55	78	66292	1.766	ug/L	97
41) 1,4-dioxaneV	13.48	88	1501	16.474	ug/L #<RL	57
49) toluene	14.77	91	10535	0.260	ug/L	97
57) chlorobenzene	16.74	112	393657	14.294	ug/L	100
64) iso-propylbenzene	17.83	105	60643	1.429	ug/L	99
70) trans-1,4-dichloro-2-buten	18.13	75	61029	29.591	ug/L #	2
71) n-propylbenzene	18.28	91	12183	0.234	ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	45888	2.113	ug/L	95
81) 1,2-dichlorobenzeneV	19.77	146	19479	0.960	ug/L #	26
86) 1,2,4-trichlorobenzV	21.44	180	3204	0.295	ug/L	95
87) hexachlorobutadieneV	21.56	225	1225	0.252	ug/L	94
88) naphthaleneV	21.76	128	18537	0.677	ug/L #	99
89) 1,2,3-trichlorobenzV	22.05	180	3201	0.342	ug/L	96

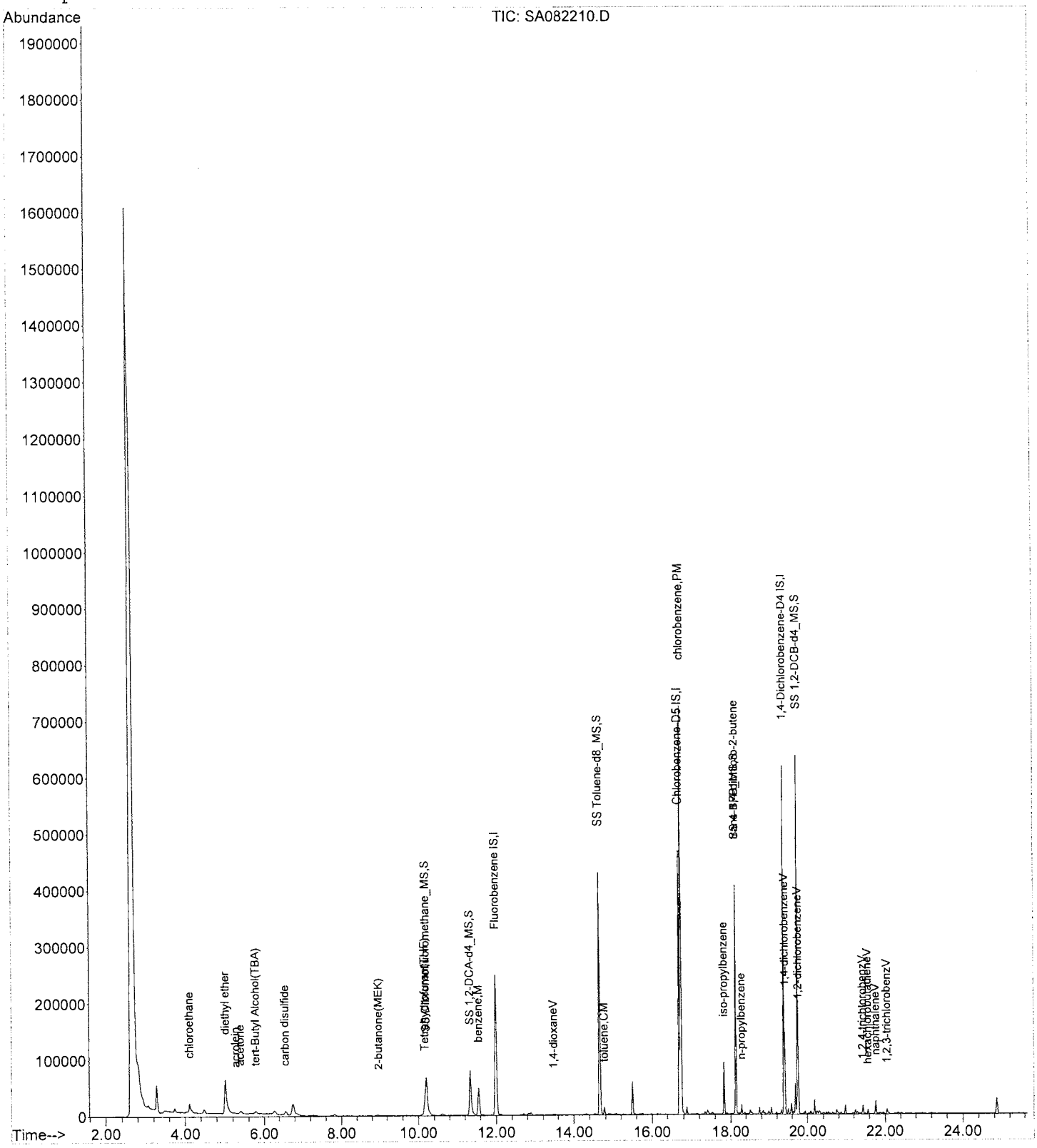
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082210.D 5VID0819.M Fri Aug 23 13:21:13 2013

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082210.D Vial: 10
Acq On : 22 Aug 2013 12:50 pm Operator: BAM
Sample : 123649.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082211.D Vial: 11
Acq On : 22 Aug 2013 1:25 pm Operator: BAM
Sample : 123649.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:16 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	326242	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	261159	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135572	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76163	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.10%			
35) SS 1,2-DCA-d4_MS	11.33	65	91910	10.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.14%			
48) SS Toluene-d8_MS	14.65	98	326985	9.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.69%			
65) SS 4-BFB_MS	18.13	95	126927	9.79	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.85%			
83) SS 1,2-DCB-d4_MS	19.75	152	136997	10.12	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.22%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
11) acetone	5.38	43	3029	1.527	ug/L #	77
16) carbon disulfide	6.57	76	11458	0.472	ug/L #	82
27) 2-butanone(MEK)	8.99	43	733	0.201	ug/L #	59
29) Tetrahydrofuran(THF)	10.16	42	640	0.261	ug/L #	38
70) trans-1,4-dichloro-2-buten	18.13	75	59741	~~29.478~~	ug/L #	2

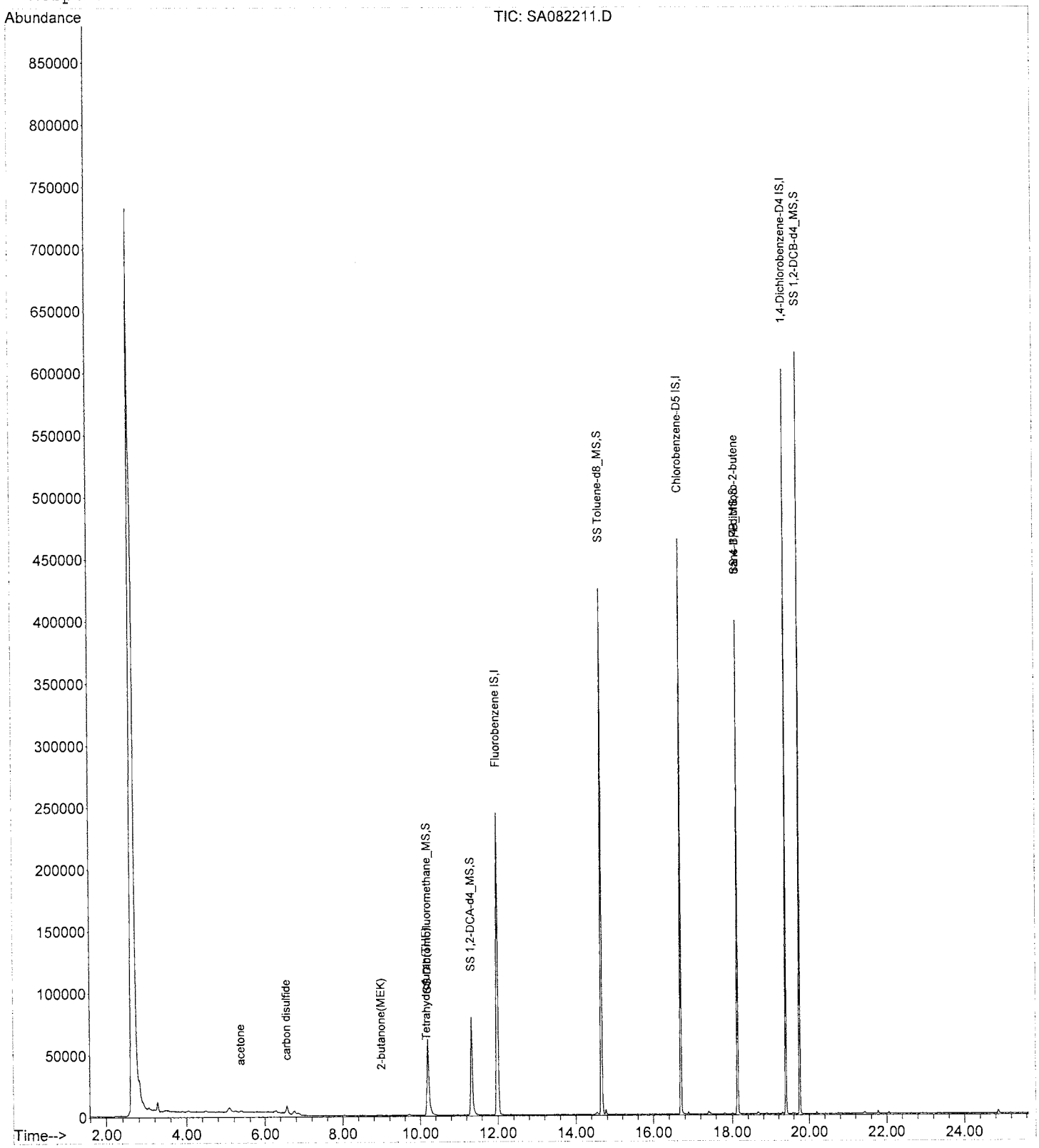
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082211.D 5VID0819.M Fri Aug 23 13:21:17 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082211.D Vial: 11
Acq On : 22 Aug 2013 1:25 pm Operator: BAM
Sample : 123649.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082212.D Vial: 12
Acq On : 22 Aug 2013 1:59 pm Operator: BAM
Sample : 123649.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	333819	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	263870	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135908	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.19	111	76760	9.76 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.61%		
35) SS 1,2-DCA-d4_MS	11.33	65	94403	10.05 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.53%		
48) SS Toluene-d8_MS	14.66	98	333901	9.97 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.74%		
65) SS 4-BFB_MS	18.13	95	128731	9.82 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.22%		
83) SS 1,2-DCB-d4_MS	19.75	152	137818	10.16 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.58%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
11) acetone	5.38	43	1147	0.565 ug/L #	48
16) carbon disulfide	6.57	76	11071	0.446 ug/L #	81
70) trans-1,4-dichloro-2-buten	18.13	75	60605	~~29.820~~ ug/L #	2

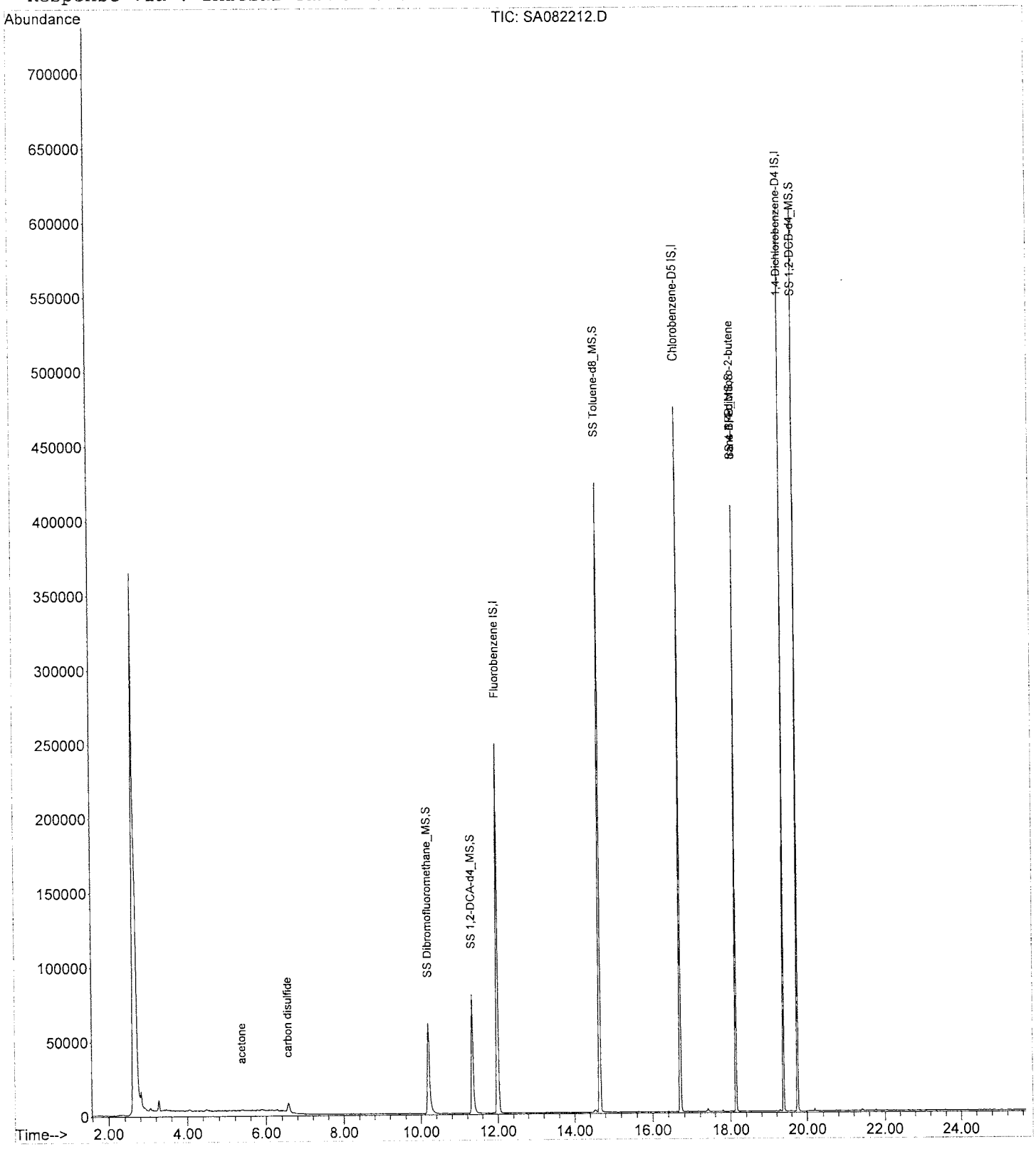
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082212.D 5VID0819.M Fri Aug 23 13:21:21 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082212.D Vial: 12
Acq On : 22 Aug 2013 1:59 pm Operator: BAM
Sample : 123649.04 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082213.D Vial: 13
Acq On : 22 Aug 2013 2:33 pm Operator: BAM
Sample : 123649.06 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:24 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	338870	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	269977	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139272	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	78120	9.79 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.85%		
35) SS 1,2-DCA-d4_MS	11.34	65	96483	10.12 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.21%		
48) SS Toluene-d8_MS	14.65	98	338479	9.88 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.82%		
65) SS 4-BFB_MS	18.13	95	131112	9.78 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.78%		
83) SS 1,2-DCB-d4_MS	19.75	152	141940	10.21 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.09%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
6) chloroethane	4.12	64	39475	6.651 ug/L	98
8) diethyl ether	5.02	59	81231	12.180 ug/L #	89
11) acetone	5.39	43	4947	2.401 ug/L	92
13) tert-Butyl Alcohol(TBA)	5.78	59	6426	8.911 ug/L <RL	92
16) carbon disulfide	6.57	76	10913	0.433 ug/L #	81
18) Methyl-t-butyl ether(MTBE)	6.86	73	5727	0.245 ug/L #	77
27) 2-butanone(MEK)	8.97	43	828	0.218 ug/L #	59
29) Tetrahydrofuran(THF)	10.16	42	10261	4.023 ug/L	98
37) benzene	11.55	78	49186	1.297 ug/L	98
41) 1,4-dioxaneV	13.49	88	1331	14.458 ug/L #<RL	64
57) chlorobenzene	16.74	112	127367	4.519 ug/L	100
64) iso-propylbenzene	17.83	105	21166	0.487 ug/L	99
70) trans-1,4-dichloro-2-buten	18.13	75	61847	29.699 ug/L #	2
78) 1,3-dichlorobenzeneV	19.42	146	15783	0.718 ug/L #	84
80) 1,4-dichlorobenzeneV	19.42	146	15783	0.720 ug/L #	80
81) 1,2-dichlorobenzeneV	19.78	146	5934	0.290 ug/L #	70

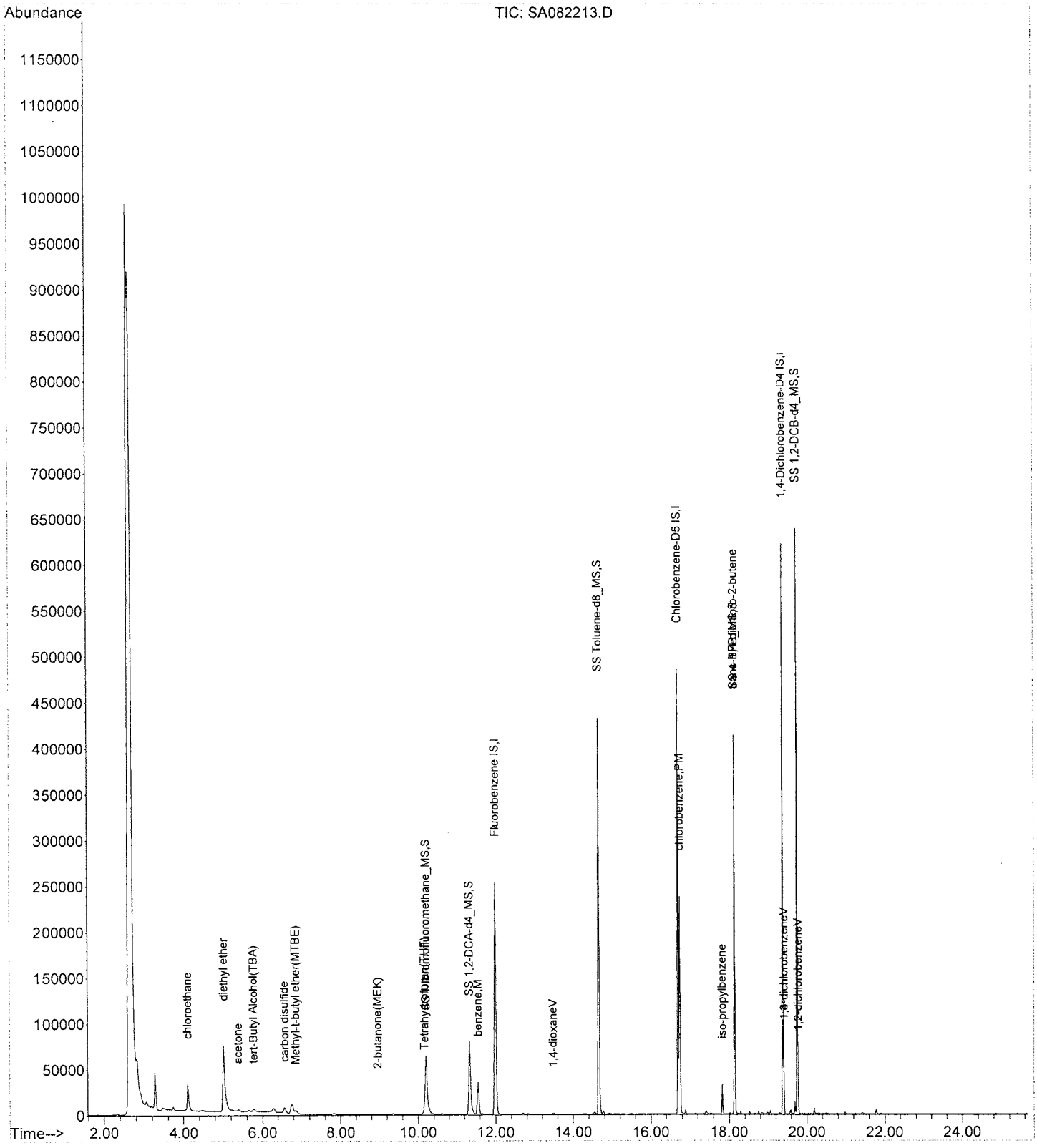
Bdm 8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082213.D 5VID0819.M Fri Aug 23 13:21:25 2013

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082213.D Vial: 13
Acq On : 22 Aug 2013 2:33 pm Operator: BAM
Sample : 123649.06 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082214.D Vial: 14
Acq On : 22 Aug 2013 3:08 pm Operator: BAM
Sample : 123649.06 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:28 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	346403	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	278203	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	149918	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	83405	10.22	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.20%			
35) SS 1,2-DCA-d4_MS	11.34	65	93501	9.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.95%			
48) SS Toluene-d8_MS	14.65	98	349840	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.12%			
65) SS 4-BFB_MS	18.13	95	138579	10.03	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.29%			
83) SS 1,2-DCB-d4_MS	19.75	152	150411	10.05	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.50%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	225908	20.461	ug/L	100
3) chloromethane	3.19	50	207777	21.104	ug/L	100
4) vinyl chloride	3.34	62	90230	20.473	ug/L	100
5) bromomethane	3.99	94	101432	19.269	ug/L	97
6) chloroethane	4.11	64	161836	26.673	ug/L	99
7) trichlorofluoromethane	4.52	101	252151	19.377	ug/L	99
8) diethyl ether	5.02	59	220776	32.384	ug/L	96
9) 1,1,2-Trichlorotrifluoroet	5.27	101	182638	20.353	ug/L	100
10) acrolein	5.27	56	14701	20.319	ug/L	86
11) acetone	5.38	43	38981	18.506	ug/L	98
12) 1,1-dichloroethene	5.61	96	162777	18.986	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	68423	92.824	ug/L	94
14) Iodomethane	6.20	142	227786	19.423	ug/L #	99
15) methylene chloride	6.55	84	175684	19.353	ug/L	100
16) carbon disulfide	6.57	76	478132	18.564	ug/L	98
17) acrylonitrile	6.82	53	65318	17.379	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	459318	19.227	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	189198	20.488	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	627514	19.581	ug/L	100
22) vinyl acetate	8.05	43	166794	10.145	ug/L	99
23) 1,1-dichloroethane	8.05	63	341938	20.095	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	538625	19.029	ug/L	99
25) 2,2-dichloropropane	9.25	77	258079	20.037	ug/L	99
26) cis-1,2-dichloroethene	9.36	61	291460	21.888	ug/L	96
27) 2-butanone(MEK)	8.96	43	66917	17.262	ug/L	98
28) bromochloromethane	10.08	128	96245	19.695	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	57909	22.212	ug/L	97
30) chloroform	9.71	83	324312	19.750	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	272737	19.861	ug/L	100
33) carbon tetrachloride	11.17	117	231787	19.727	ug/L	99
34) 1,1-dichloropropene	10.96	75	266685	19.714	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	478175	19.241	ug/L #	60
37) benzene	11.55	78	869528	22.431	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082214.D Vial: 14
Acq On : 22 Aug 2013 3:08 pm Operator: BAM
Sample : 123649.06 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:28 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	252862	19.290	ug/L		98
39)	trichloroethene	12.73	95	203043	19.389	ug/L		99
40)	1,2-dichloropropane	13.05	63	196704	20.167	ug/L		99
41)	1,4-dioxaneV	13.48	88	4192	44.544	ug/L	#	86
42)	dibromomethane	13.53	93	108970	19.634	ug/L		99
43)	bromodichloromethane	13.44	83	219274	18.824	ug/L		99
44)	2-Chloroethoxyethene	13.99	63	84	~~6.312~~	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	56585	18.528	ug/L		89
46)	cis-1,3-dichloropropene	14.30	75	300658	21.460	ug/L		98
49)	toluene	14.77	91	894323	20.939	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	255154	19.387	ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	134267	19.908	ug/L		98
52)	2-hexanone	15.25	43	100879	18.600	ug/L		99
53)	tetrachloroethene	15.67	166	240632	20.461	ug/L		98
54)	1,3-dichloropropane	15.60	76	285245	19.174	ug/L		87
55)	dibromochloromethane	15.95	129	164608	17.532	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	163956	19.321	ug/L		100
57)	chlorobenzene	16.74	112	720399	24.804	ug/L		100
58)	1,1,1,2-tetrachloroethane	16.79	131	183157	20.706	ug/L		99
59)	ethylbenzene	16.79	91	1025078	20.938	ug/L		100
60)	mp-xylene	16.89	106	819312	40.475	ug/L		99
61)	o-xylene	17.41	106	390154	20.641	ug/L		100
62)	styrene	17.46	104	672906	21.599	ug/L		100
63)	bromoform	17.89	173	95981	16.982	ug/L	#	93
64)	iso-propylbenzene	17.83	105	1054388	23.557	ug/L		100
67)	bromobenzene	18.38	156	243786	19.508	ug/L		100
68)	1,1,2,2-tetrachloroethane	18.03	83	194234	19.485	ug/L		99
69)	1,2,3-trichloropropane	18.21	110	59064	18.563	ug/L		98
70)	trans-1,4-dichloro-2-buten	18.27	75	73291	32.602	ug/L	#	84
71)	n-propylbenzene	18.29	91	1219327	21.580	ug/L		100
72)	2-chlorotoluene	18.51	91	698544	19.885	ug/L		100
73)	4-chlorotoluene	18.56	91	727037	20.642	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	842318	20.945	ug/L		100
75)	tert-butylbenzene	18.84	119	748398	20.970	ug/L		100
76)	1,2,4-trimethylbenzene	18.89	105	852851	20.809	ug/L		99
77)	sec-butylbenzene	19.06	105	1070892	21.570	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	483809	20.448	ug/L		100
79)	p-isopropyltoluene	19.19	119	926315	21.856	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	499753	21.175	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	446336	20.240	ug/L		99
82)	n-butylbenzene	19.58	91	783805	21.746	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	33995	16.821	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	286291	20.562	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	230149	19.520	ug/L		99
87)	hexachlorobutadieneV	21.56	225	95057	17.990	ug/L		99
88)	naphthaleneV	21.76	128	584726	19.656	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	195948	19.277	ug/L		99

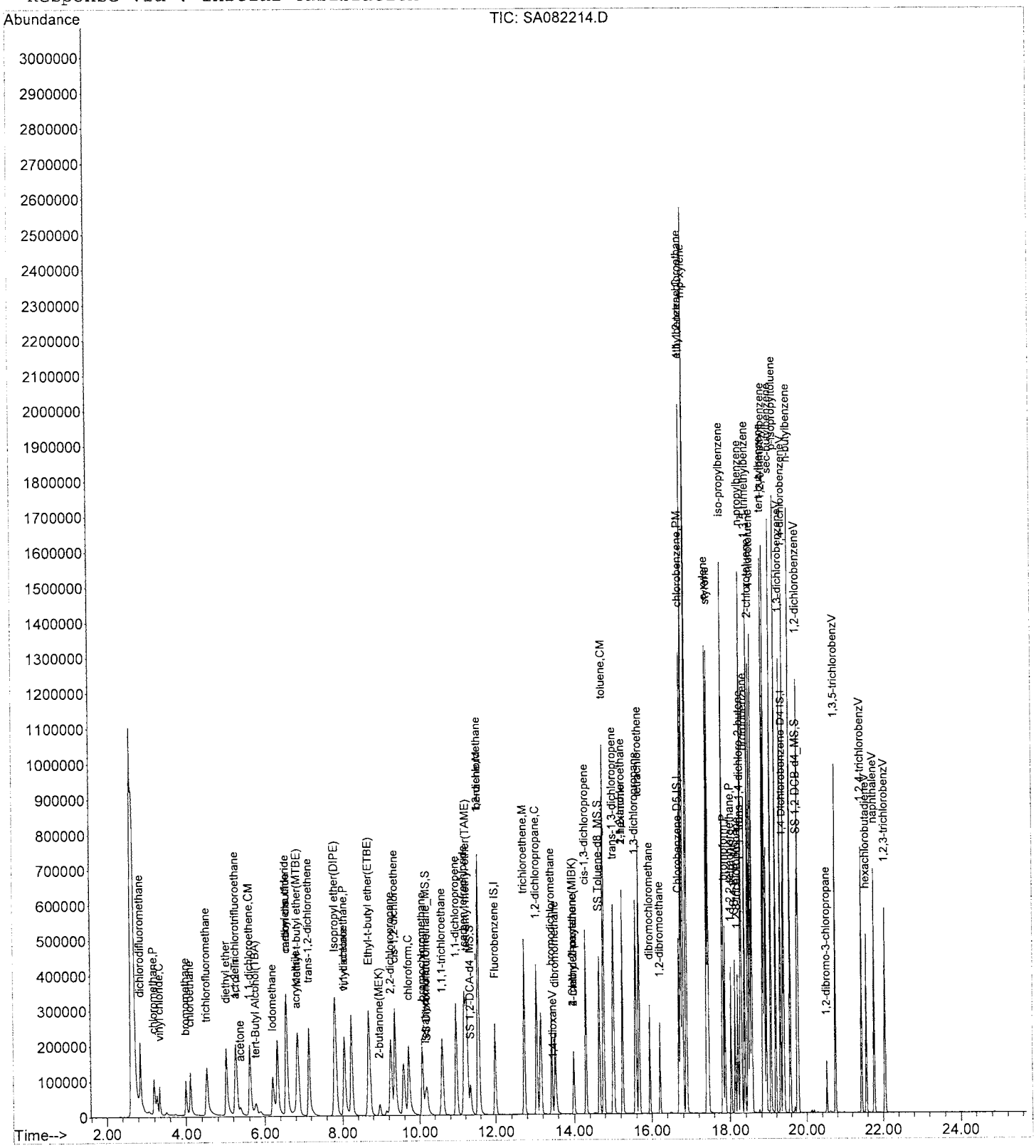
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082214.D 5VID0819.M Fri Aug 23 13:21:29 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082214.D Vial: 14
Acq On : 22 Aug 2013 3:08 pm Operator: BAM
Sample : 123649.06 MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082215.D Vial: 15
Acq On : 22 Aug 2013 3:42 pm Operator: BAM
Sample : 123649.06 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:32 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	349831	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	278751	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	148463	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	83708	10.16 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.57%		
35) SS 1,2-DCA-d4_MS	11.33	65	93351	9.49 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 94.86%		
48) SS Toluene-d8_MS	14.65	98	351026	9.93 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.26%		
65) SS 4-BFB_MS	18.13	95	138760	10.02 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.22%		
83) SS 1,2-DCB-d4_MS	19.75	152	148978	10.05 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.52%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	234090	20.994 ug/L	100
3) chloromethane	3.19	50	213088	21.431 ug/L	100
4) vinyl chloride	3.34	62	92528	20.797 ug/L	99
5) bromomethane	3.99	94	112086	21.084 ug/L	98
6) chloroethane	4.11	64	165906	27.076 ug/L	99
7) trichlorofluoromethane	4.52	101	259291	19.731 ug/L	99
8) diethyl ether	5.02	59	217599	31.606 ug/L	95
9) 1,1,2-Trichlorotrifluoroet	5.27	101	176043	19.426 ug/L	99
10) acrolein	5.27	56	15480	21.186 ug/L	100
11) acetone	5.39	43	40879	19.217 ug/L	97
12) 1,1-dichloroethene	5.61	96	157207	18.157 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	66150	88.861 ug/L	98
14) Iodomethane	6.20	142	219620	18.533 ug/L #	99
15) methylene chloride	6.55	84	169994	18.543 ug/L	99
16) carbon disulfide	6.57	76	464657	17.864 ug/L	99
17) acrylonitrile	6.82	53	63007	16.600 ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.85	73	445440	18.463 ug/L	99
19) trans-1,2-dichloroethene	7.15	96	181206	19.430 ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	607844	18.781 ug/L	100
22) vinyl acetate	8.05	43	171693	10.341 ug/L	99
23) 1,1-dichloroethane	8.04	63	330214	19.216 ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	525468	18.382 ug/L	99
25) 2,2-dichloropropane	9.25	77	246479	18.949 ug/L	100
26) cis-1,2-dichloroethene	9.36	61	285571	21.236 ug/L	95
27) 2-butanone(MEK)	8.96	43	68762	17.564 ug/L	98
28) bromochloromethane	10.08	128	92851	18.814 ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	56134	21.320 ug/L	96
30) chloroform	9.71	83	311663	18.794 ug/L	99
32) 1,1,1-trichloroethane	10.59	97	264870	19.099 ug/L	100
33) carbon tetrachloride	11.17	117	227277	19.154 ug/L	99
34) 1,1-dichloropropene	10.96	75	256487	18.774 ug/L	97
36) tert-amyl methyl ether(TAM	11.23	73	465493	18.548 ug/L #	57
37) benzene	11.55	78	844319	21.567 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082215.D Vial: 15
Acq On : 22 Aug 2013 3:42 pm Operator: BAM
Sample : 123649.06 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:32 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	242015	18.282	ug/L		98
39)	trichloroethene	12.73	95	195167	18.454	ug/L		99
40)	1,2-dichloropropane	13.05	63	191161	19.407	ug/L		98
41)	1,4-dioxaneV	13.48	88	3954	41.603	ug/L	#	91
42)	dibromomethane	13.53	93	104088	18.571	ug/L		99
43)	bromodichloromethane	13.44	83	211797	18.004	ug/L		99
44)	2-Chloroethoxyethene	13.99	63	151	~~6.346~~	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.98	58	59376	19.251	ug/L		88
46)	cis-1,3-dichloropropene	14.30	75	289918	20.491	ug/L		98
49)	toluene	14.77	91	862200	20.147	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	247646	18.779	ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	129452	19.157	ug/L		98
52)	2-hexanone	15.25	43	104808	19.286	ug/L		99
53)	tetrachloroethene	15.67	166	229301	19.459	ug/L		99
54)	1,3-dichloropropane	15.60	76	273032	18.317	ug/L	#	85
55)	dibromochloromethane	15.95	129	159526	16.970	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	159413	18.748	ug/L		100
57)	chlorobenzene	16.74	112	695683	23.906	ug/L		100
58)	1,1,1,2-tetrachloroethane	16.79	131	177039	19.975	ug/L		99
59)	ethylbenzene	16.79	91	985341	20.087	ug/L		100
60)	mp-xylene	16.89	106	788729	38.887	ug/L		99
61)	o-xylene	17.41	106	375201	19.811	ug/L		98
62)	styrene	17.46	104	640694	20.525	ug/L		99
63)	bromoform	17.89	173	93480	16.545	ug/L	#	92
64)	iso-propylbenzene	17.83	105	1020406	22.753	ug/L		100
67)	bromobenzene	18.38	156	234215	18.926	ug/L		99
68)	1,1,2,2-tetrachloroethane	18.04	83	188360	19.081	ug/L		99
69)	1,2,3-trichloropropane	18.21	110	57538	18.261	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	71211	32.005	ug/L	#	84
71)	n-propylbenzene	18.28	91	1178924	21.070	ug/L		100
72)	2-chlorotoluene	18.51	91	671815	19.312	ug/L		100
73)	4-chlorotoluene	18.56	91	698427	20.024	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	803541	20.177	ug/L		100
75)	tert-butylbenzene	18.84	119	722017	20.429	ug/L		99
76)	1,2,4-trimethylbenzene	18.89	105	821964	20.252	ug/L		99
77)	sec-butylbenzene	19.06	105	1025675	20.862	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	461172	19.683	ug/L		99
79)	p-isopropyltoluene	19.19	119	888968	21.180	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	479556	20.519	ug/L		99
81)	1,2-dichlorobenzeneV	19.78	146	426240	19.518	ug/L		100
82)	n-butylbenzene	19.58	91	749996	21.012	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	33047	16.535	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	274956	19.941	ug/L		99
86)	1,2,4-trichlorobenzV	21.44	180	221217	18.946	ug/L		99
87)	hexachlorobutadieneV	21.56	225	92788	17.732	ug/L		99
88)	naphthaleneV	21.76	128	568571	19.300	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	189451	18.820	ug/L		99

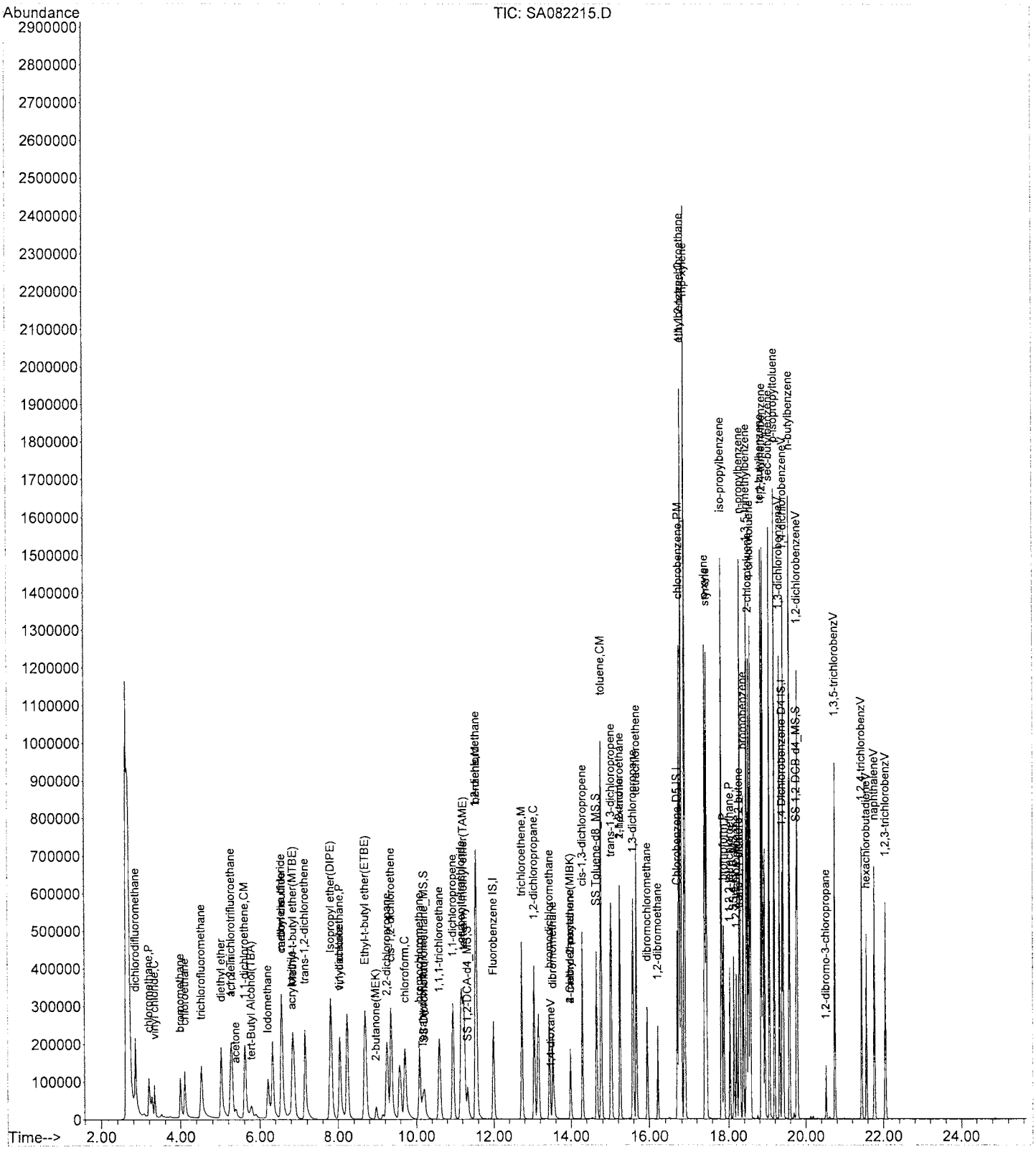
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082215.D Vial: 15
Acq On : 22 Aug 2013 3:42 pm Operator: BAM
Sample : 123649.06 MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:17:18 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	326175	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264476	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	143058	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79435	10.34	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.37%			
35) SS 1,2-DCA-d4_MS	11.33	65	89654	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.71%			
48) SS Toluene-d8_MS	14.65	98	330562	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.52%			
65) SS 4-BFB_MS	18.13	95	131897	10.04	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.41%			
83) SS 1,2-DCB-d4_MS	19.75	152	144123	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.92%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	211512	20.345	ug/L	99
3) chloromethane	3.19	50	178136	19.215	ug/L	99
4) vinyl chloride	3.33	62	81955	19.728	ug/L	100
5) bromomethane	3.99	94	88583	17.872	ug/L	97
6) chloroethane	4.10	64	111422	19.503	ug/L	99
7) trichlorofluoromethane	4.52	101	231615	18.903	ug/L	99
8) diethyl ether	5.02	59	136812	21.313	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	159149	18.836	ug/L	99
10) acrolein	5.27	56	17572	25.794	ug/L	94
11) acetone	5.38	43	43825	22.096	ug/L	98
12) 1,1-dichloroethene	5.61	96	142977	17.711	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.78	59	76175	109.749	ug/L	98
14) Iodomethane	6.20	142	196917	17.813	ug/L #	99
15) methylene chloride	6.55	84	164823	19.283	ug/L	99
16) carbon disulfide	6.57	76	411682	16.976	ug/L	98
17) acrylonitrile	6.82	53	72991	20.625	ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.85	73	472781	21.018	ug/L	99
19) trans-1,2-dichloroethene	7.14	96	172753	19.868	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	601103	19.920	ug/L	100
22) vinyl acetate	8.05	43	176507	11.402	ug/L	99
23) 1,1-dichloroethane	8.04	63	318002	19.847	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	529433	19.864	ug/L	99
25) 2,2-dichloropropane	9.25	77	208046	17.155	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	275580	21.979	ug/L	95
27) 2-butanone(MEK)	8.97	43	82179	22.513	ug/L	98
28) bromochloromethane	10.08	128	93896	20.406	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	57047	23.238	ug/L	97
30) chloroform	9.71	83	304953	19.723	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	248041	19.182	ug/L	99
33) carbon tetrachloride	11.17	117	208908	18.883	ug/L	99
34) 1,1-dichloropropene	10.96	75	240495	18.880	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	488527	20.877	ug/L #	55
37) benzene	11.55	78	758061	20.768	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:17:18 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

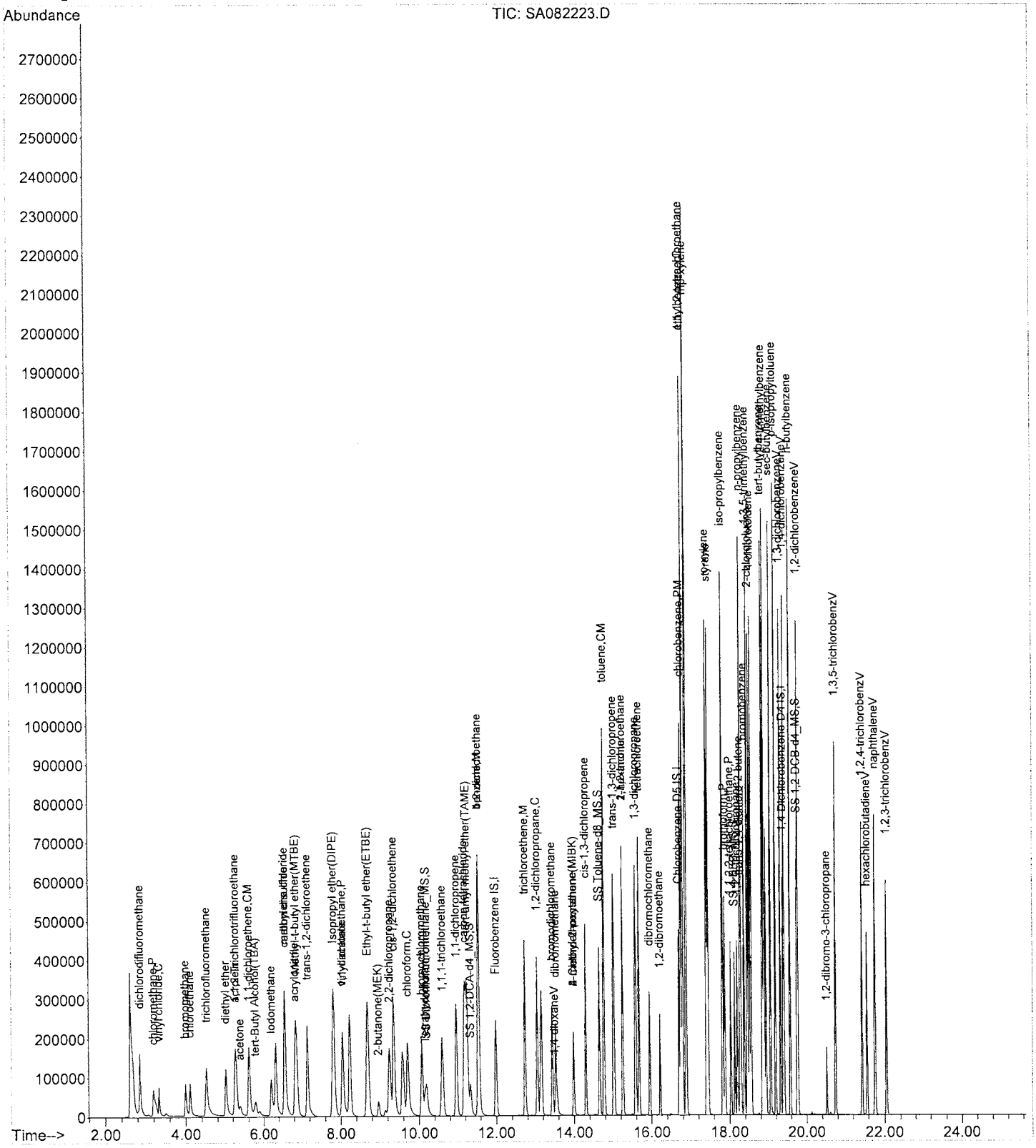
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	248806	20.158 ug/L	99
39) trichloroethene	12.73	95	185756	18.838 ug/L	99
40) 1,2-dichloropropane	13.05	63	188326	20.506 ug/L	98
41) 1,4-dioxaneV	13.50	88	2652m	29.928 ug/L	
42) dibromomethane	13.53	93	110700	21.183 ug/L	99
43) bromodichloromethane	13.44	83	210514	19.192 ug/L	99
44) 2-Chloroethoxyethene	13.98	63	103	6.325 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.98	58	69309	24.102 ug/L	87
46) cis-1,3-dichloropropene	14.30	75	284902	21.597 ug/L	98
49) toluene	14.77	91	833033	20.516 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	248887	19.892 ug/L #	76
51) 1,1,2-trichloroethane	15.25	83	137447	21.438 ug/L	98
52) 2-hexanone	15.25	43	125252	24.293 ug/L	99
53) tetrachloroethene	15.67	166	221294	19.794 ug/L	98
54) 1,3-dichloropropane	15.59	76	289738	20.487 ug/L #	85
55) dibromochloromethane	15.95	129	165620	18.534 ug/L #	99
56) 1,2-dibromoethane	16.22	107	170960	21.192 ug/L	99
57) chlorobenzene	16.74	112	558140	20.215 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	174840	20.792 ug/L	99
59) ethylbenzene	16.79	91	948813	20.386 ug/L	99
60) mp-xylene	16.89	106	764086	39.706 ug/L	98
61) o-xylene	17.41	106	368062	20.483 ug/L	98
62) styrene	17.46	104	636611	21.495 ug/L	99
63) bromoform	17.88	173	102132	18.845 ug/L #	93
64) iso-propylbenzene	17.83	105	963280	22.639 ug/L	100
67) bromobenzene	18.38	156	235007	19.707 ug/L	100
68) 1,1,2,2-tetrachloroethane	18.03	83	213224	22.416 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	65482	21.567 ug/L	99
70) trans-1,4-dichloro-2-buten	18.26	75	77419	35.991 ug/L #	82
71) n-propylbenzene	18.28	91	1141119	21.164 ug/L	100
72) 2-chlorotoluene	18.51	91	667747	19.920 ug/L	100
73) 4-chlorotoluene	18.56	91	684360	20.362 ug/L	100
74) 1,3,5-trimethylbenzene	18.45	105	791252	20.619 ug/L	99
75) tert-butylbenzene	18.84	119	702652	20.632 ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	809562	20.700 ug/L	99
77) sec-butylbenzene	19.06	105	1000570	21.120 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	462541	20.487 ug/L	100
79) p-isopropyltoluene	19.18	119	865946	21.411 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	467076	20.740 ug/L	100
81) 1,2-dichlorobenzeneV	19.77	146	434803	20.662 ug/L	99
82) n-butylbenzene	19.58	91	727871	21.163 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	39661	20.292 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	282855	21.289 ug/L	100
86) 1,2,4-trichlorobenzV	21.44	180	234208	20.817 ug/L	99
87) hexachlorobutadieneV	21.56	225	89507	17.752 ug/L	99
88) naphthaleneV	21.76	128	642489	22.634 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	205209	21.156 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:18 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	343058	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	277201	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	149184	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	82157	10.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.65%			
35) SS 1,2-DCA-d4_MS	11.33	65	94685	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.11%			
48) SS Toluene-d8_MS	14.65	98	347437	9.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.79%			
65) SS 4-BFB_MS	18.13	95	137421	9.98	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.81%			
83) SS 1,2-DCB-d4_MS	19.75	152	151229	10.15	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.54%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	219142	20.042	ug/L	99
3) chloromethane	3.19	50	185947	19.070	ug/L	99
4) vinyl chloride	3.33	62	84584	19.348	ug/L	99
5) bromomethane	3.99	94	97039	18.614	ug/L	97
6) chloroethane	4.10	64	116627	19.409	ug/L	98
7) trichlorofluoromethane	4.52	101	241214	18.717	ug/L	99
8) diethyl ether	5.02	59	140244	20.772	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	165712	18.647	ug/L	100
10) acrolein	5.27	56	16873	23.549	ug/L	87
11) acetone	5.39	43	46737	22.405	ug/L	98
12) 1,1-dichloroethene	5.61	96	149478	17.605	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.78	59	80701	110.548	ug/L	98
14) Iodomethane	6.20	142	204973	17.627	ug/L #	99
15) methylene chloride	6.55	84	168836	18.780	ug/L	98
16) carbon disulfide	6.57	76	426064	16.704	ug/L	100
17) acrylonitrile	6.82	53	76984	20.683	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	491898	20.791	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	180608	19.749	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	626582	19.743	ug/L	100
22) vinyl acetate	8.05	43	183865	11.293	ug/L	99
23) 1,1-dichloroethane	8.04	63	332031	19.703	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	556307	19.845	ug/L	99
25) 2,2-dichloropropane	9.25	77	213649	16.750	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	287039	21.766	ug/L	95
27) 2-butanone(MEK)	8.97	43	85319	22.223	ug/L	98
28) bromochloromethane	10.08	128	97684	20.184	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	59213	22.934	ug/L	97
30) chloroform	9.71	83	314890	19.363	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	257573	18.939	ug/L	99
33) carbon tetrachloride	11.17	117	221237	19.013	ug/L	99
34) 1,1-dichloropropene	10.96	75	249760	18.643	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	508098	20.645	ug/L #	55
37) benzene	11.55	78	787783	20.521	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA082224.D 5VID0819.M Fri Aug 30 10:41:33 2013

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

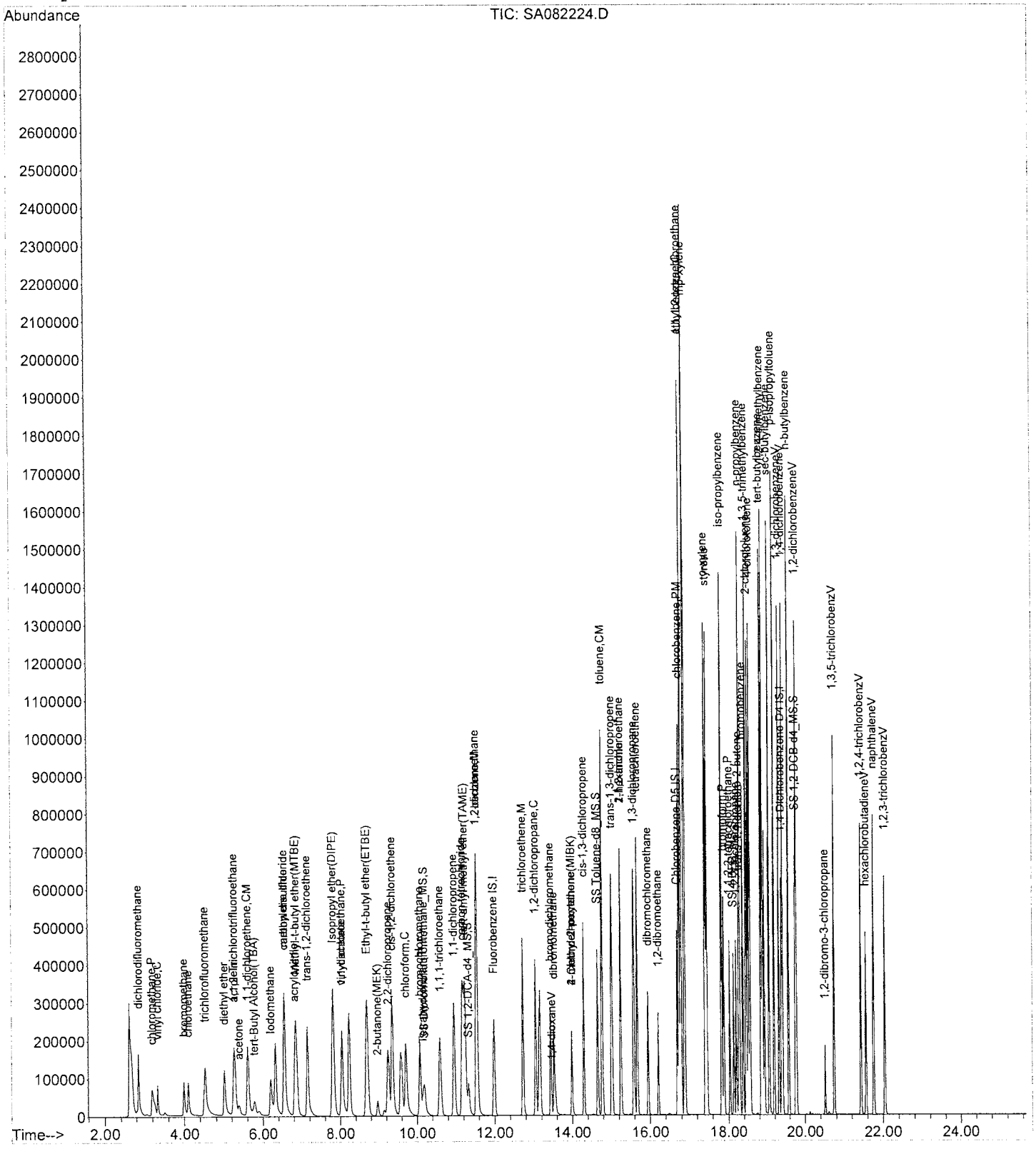
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	256254	19.740	ug/L		99
39)	trichloroethene	12.73	95	193964	18.702	ug/L		99
40)	1,2-dichloropropane	13.05	63	196090	20.300	ug/L		97
41)	1,4-dioxaneV	13.48	88	2804m	30.086	ug/L		
42)	dibromomethane	13.53	93	113777	20.700	ug/L		99
43)	bromodichloromethane	13.44	83	217982	18.895	ug/L		99
44)	2-Chloroethoxyethene	13.99	63	172	6.358	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	71974	23.797	ug/L		88
46)	cis-1,3-dichloropropene	14.30	75	294345	21.214	ug/L		98
49)	toluene	14.77	91	862510	20.267	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	259095	19.757	ug/L	#	76
51)	1,1,2-trichloroethane	15.25	83	141655	21.080	ug/L		98
52)	2-hexanone	15.25	43	130391	24.128	ug/L		99
53)	tetrachloroethene	15.67	166	228662	19.514	ug/L		99
54)	1,3-dichloropropane	15.59	76	298704	20.151	ug/L	#	85
55)	dibromochloromethane	15.95	129	172041	18.372	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	175594	20.767	ug/L		100
57)	chlorobenzene	16.74	112	577221	19.946	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.78	131	182049	20.656	ug/L		99
59)	ethylbenzene	16.79	91	983345	20.158	ug/L		99
60)	mp-xylene	16.89	106	790552	39.195	ug/L		98
61)	o-xylene	17.41	106	379343	20.142	ug/L		99
62)	styrene	17.46	104	656874	21.161	ug/L		100
63)	bromoform	17.88	173	106131	18.696	ug/L	#	92
64)	iso-propylbenzene	17.83	105	992398	22.252	ug/L		99
67)	bromobenzene	18.38	156	244287	19.644	ug/L		99
68)	1,1,2,2-tetrachloroethane	18.03	83	222032	22.383	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	67063	21.181	ug/L		98
70)	trans-1,4-dichloro-2-buten	18.26	75	80791	36.016	ug/L	#	81
71)	n-propylbenzene	18.28	91	1186026	21.094	ug/L		100
72)	2-chlorotoluene	18.51	91	684658	19.586	ug/L		99
73)	4-chlorotoluene	18.56	91	704080	20.088	ug/L		100
74)	1,3,5-trimethylbenzene	18.45	105	822166	20.545	ug/L		99
75)	tert-butylbenzene	18.84	119	729405	20.538	ug/L		98
76)	1,2,4-trimethylbenzene	18.89	105	834218	20.454	ug/L		99
77)	sec-butylbenzene	19.06	105	1037832	21.007	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	476720	20.248	ug/L		100
79)	p-isopropyltoluene	19.18	119	904113	21.437	ug/L		99
80)	1,4-dichlorobenzeneV	19.42	146	482626	20.550	ug/L		99
81)	1,2-dichlorobenzeneV	19.77	146	447793	20.406	ug/L		100
82)	n-butylbenzene	19.58	91	762796	21.268	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	42128	20.646	ug/L		98
85)	1,3,5-trichlorobenzV	20.75	180	298810	21.567	ug/L		99
86)	1,2,4-trichlorobenzV	21.44	180	245176	20.897	ug/L		99
87)	hexachlorobutadieneV	21.56	225	94475	17.968	ug/L		100
88)	naphthaleneV	21.76	128	675567	22.822	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	216559	21.409	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

Professional laboratory & drilling services

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VB

Date: 5/10/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAI5100J	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMDSD	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120264.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120264.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	17					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120271.02				✓	VOC			
39	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/13

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

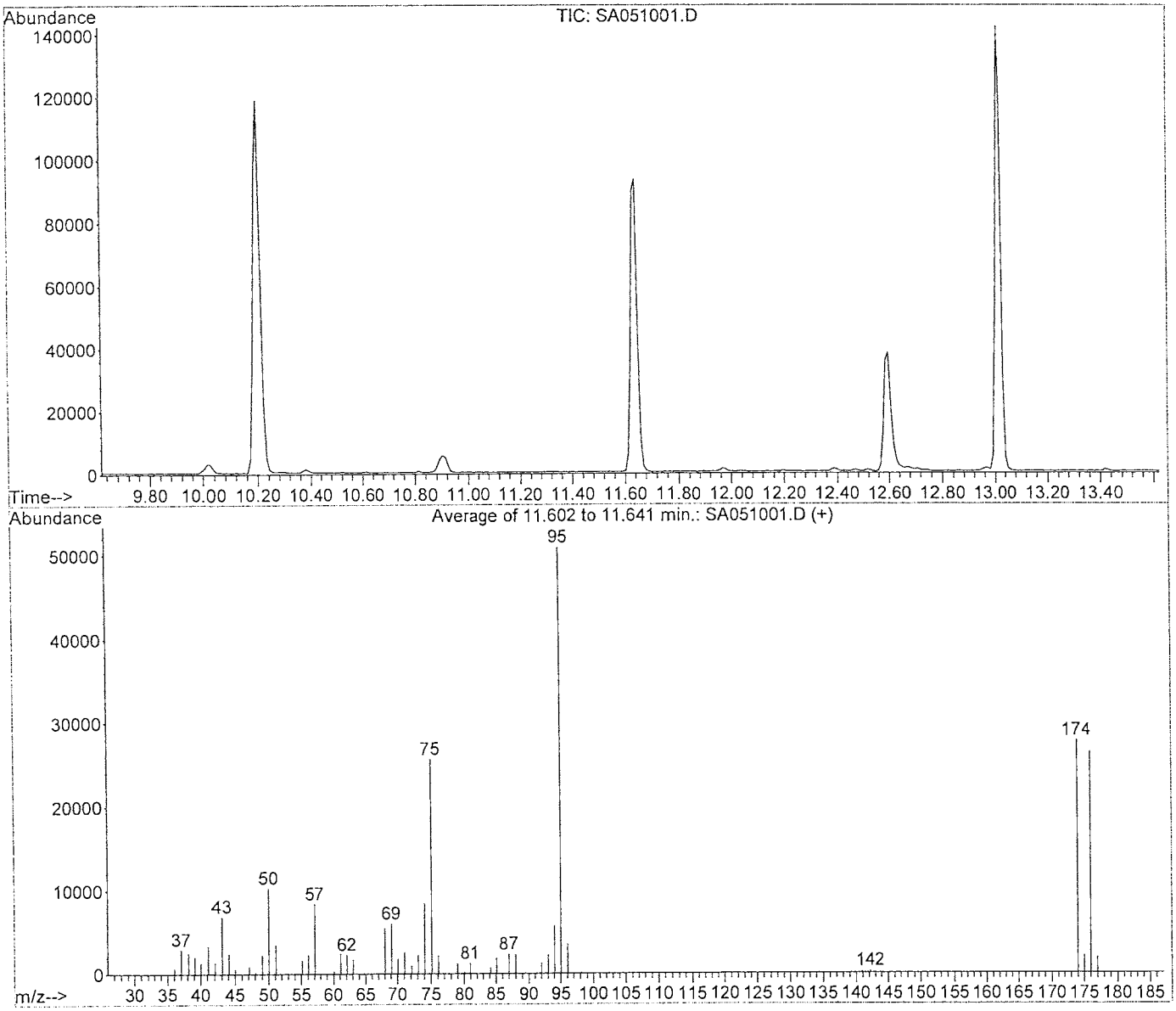
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

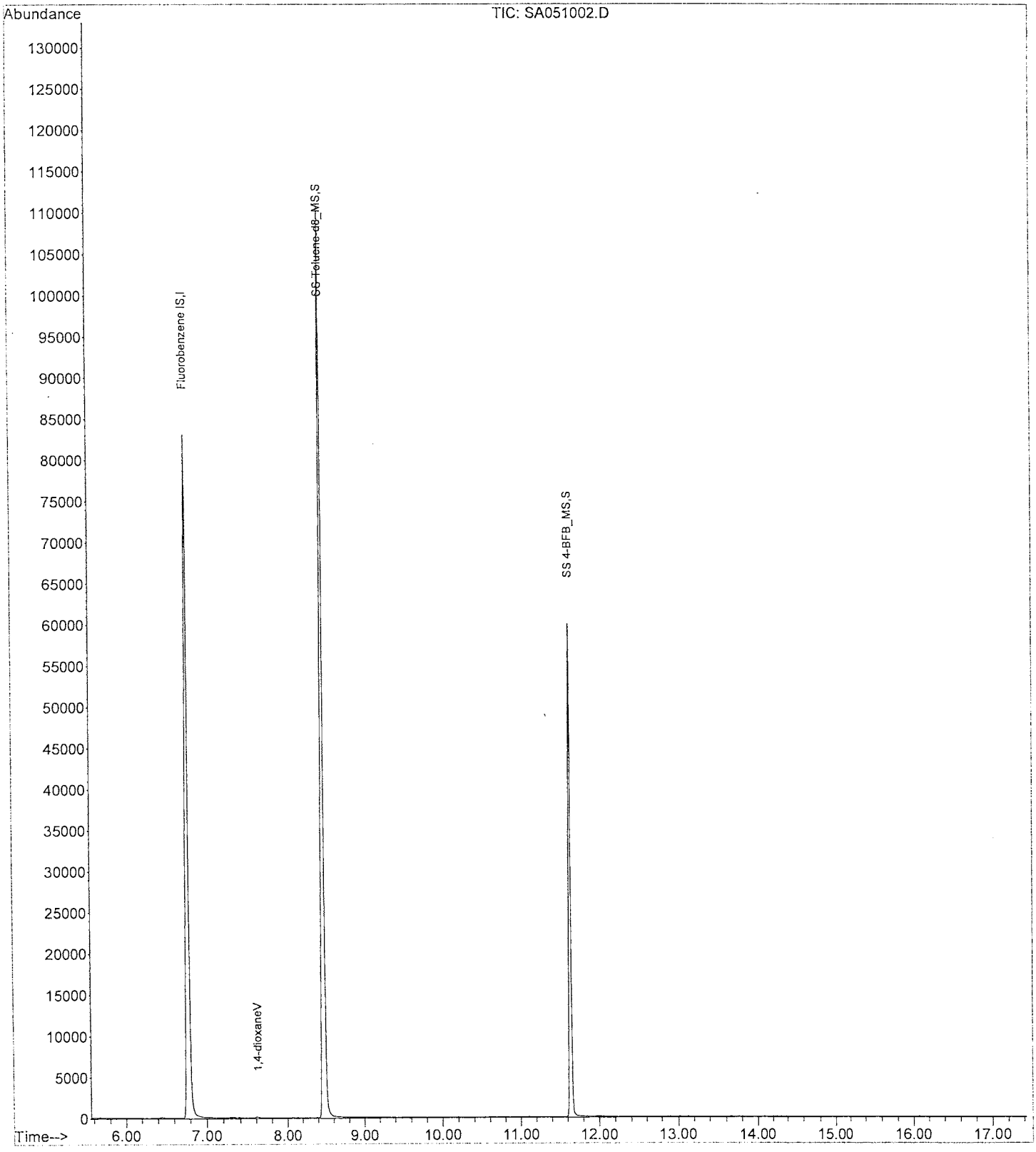
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	160084	9.79	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS	11.64	95	56746	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

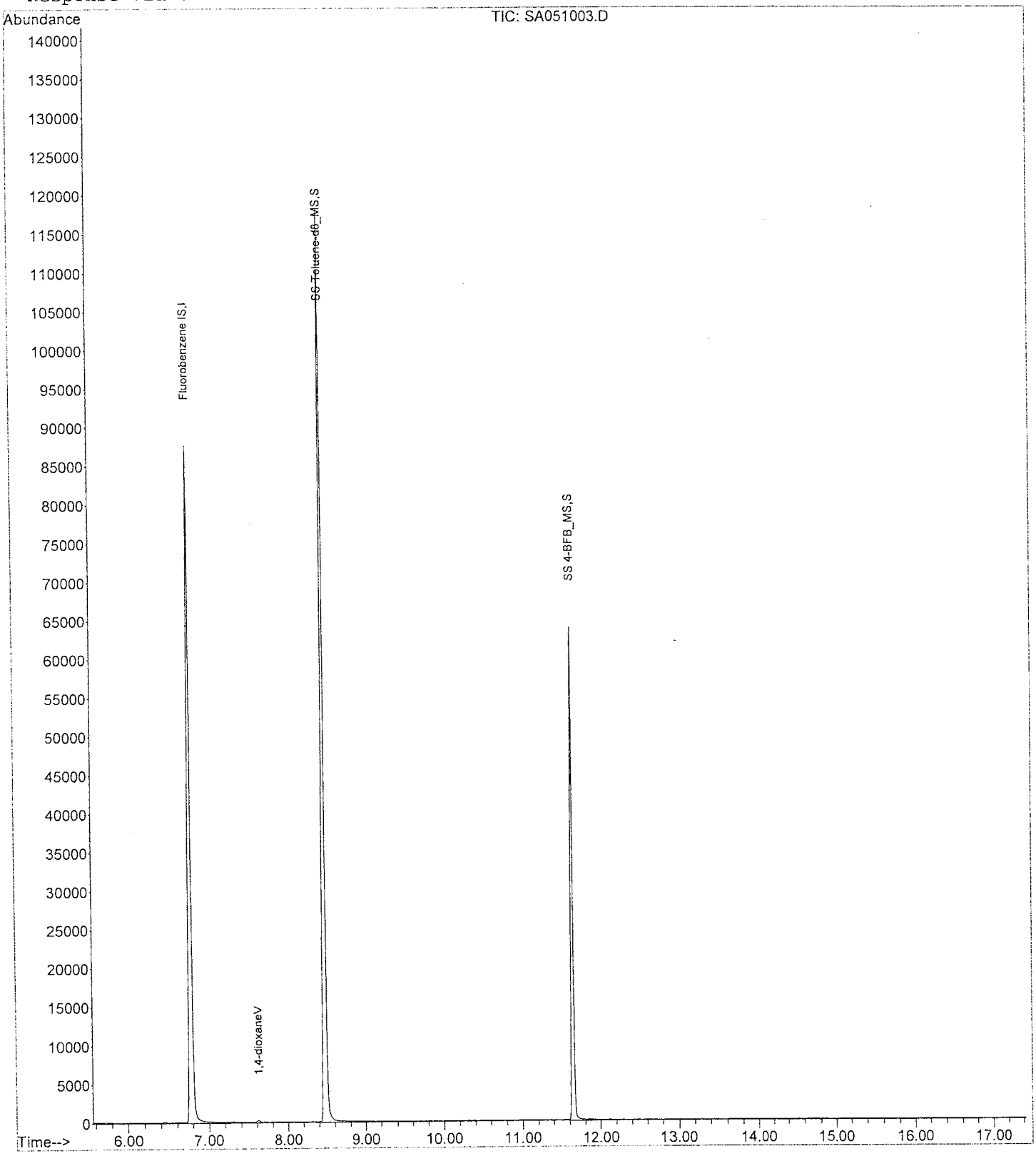
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

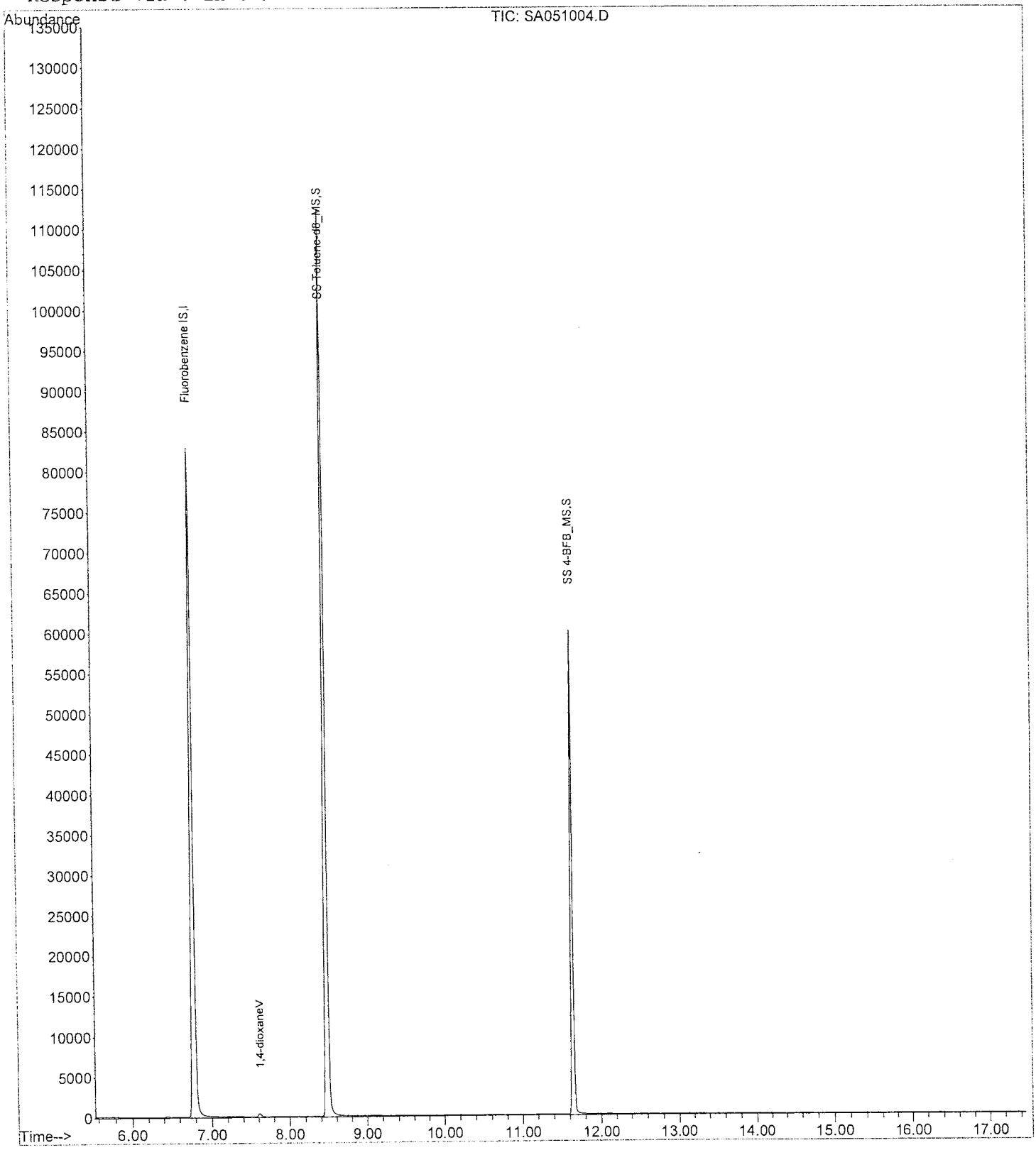
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

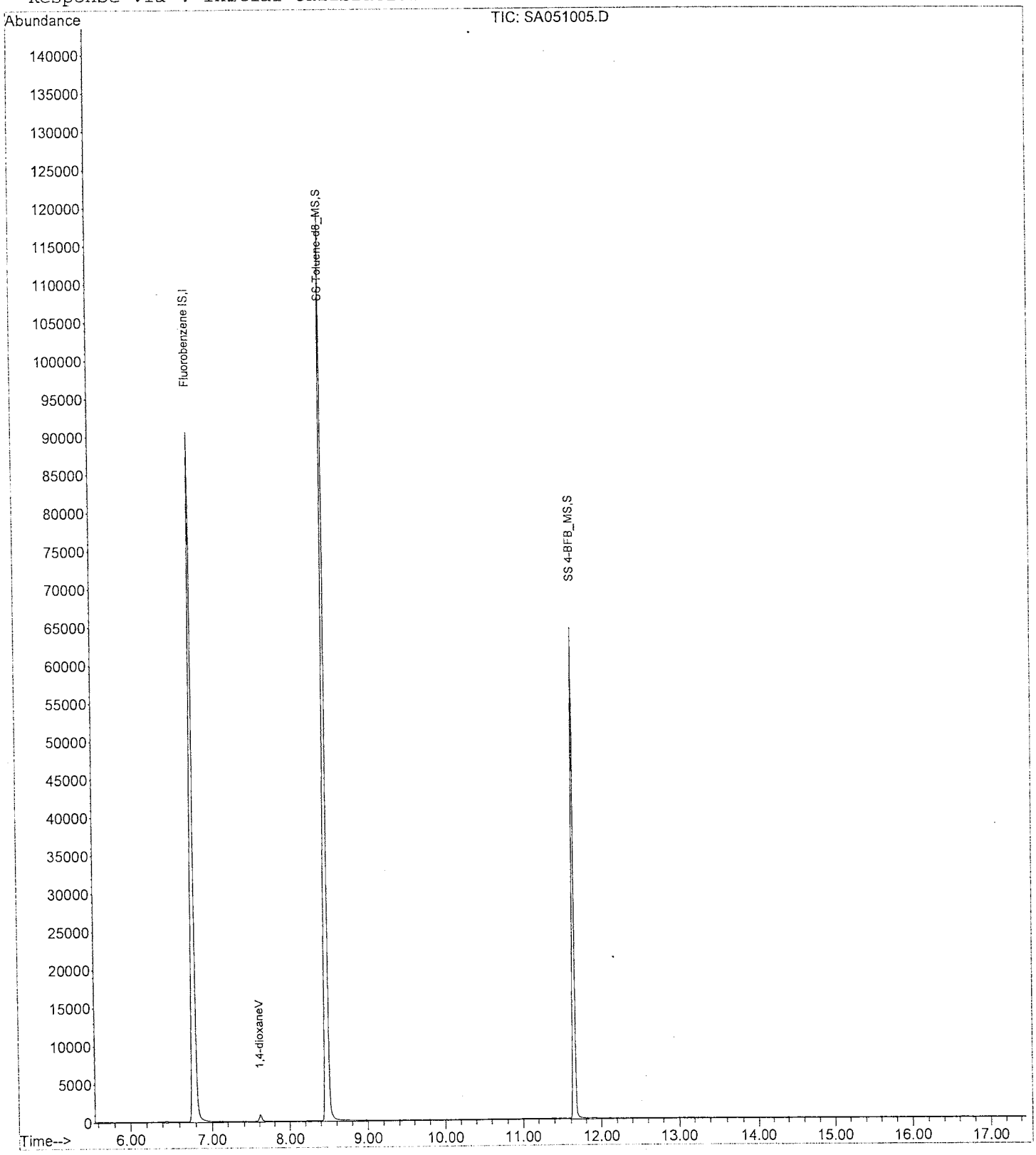
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170943	9.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.75%			
4) SS 4-BFB_MS	11.64	95	59771	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

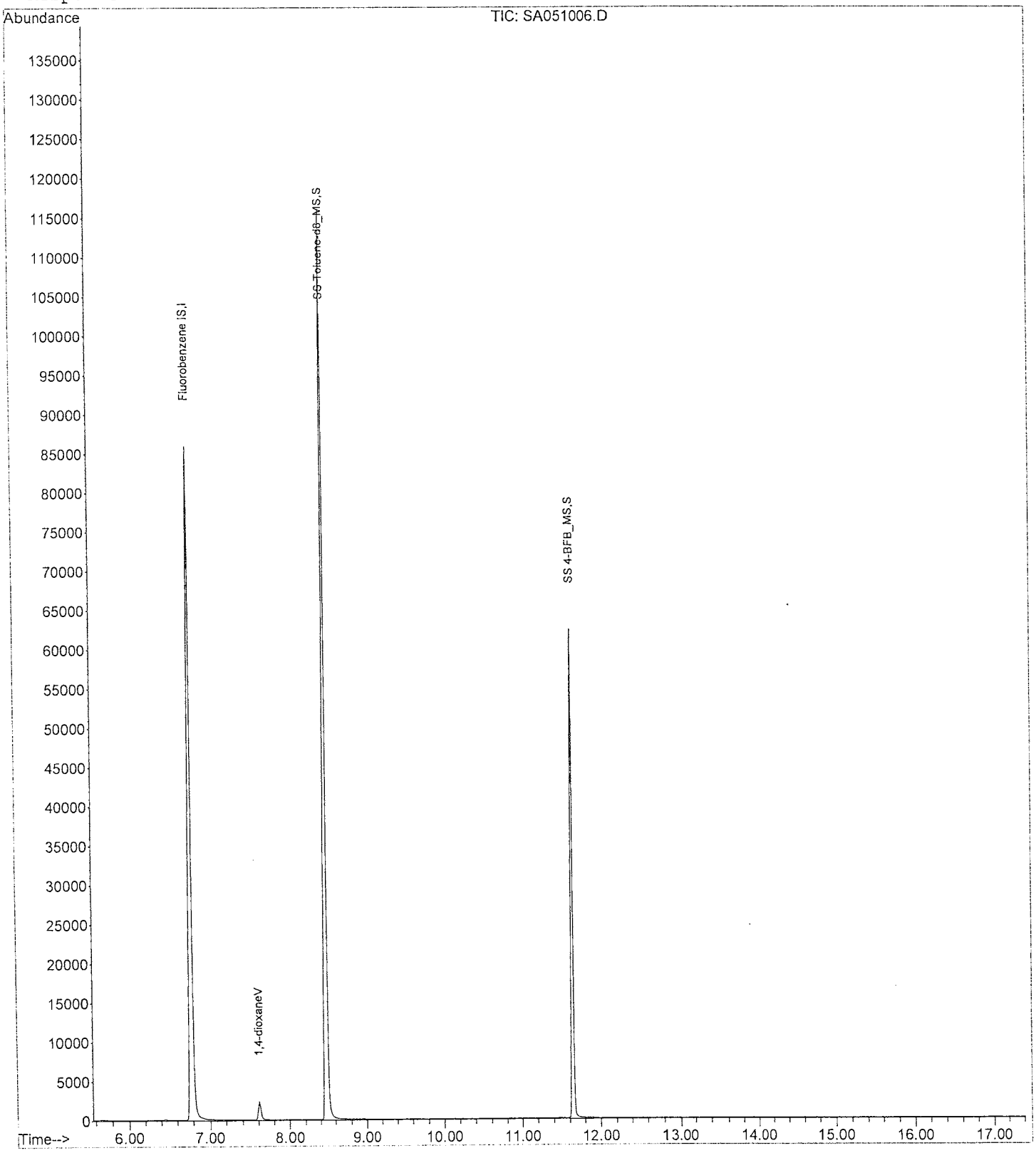
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

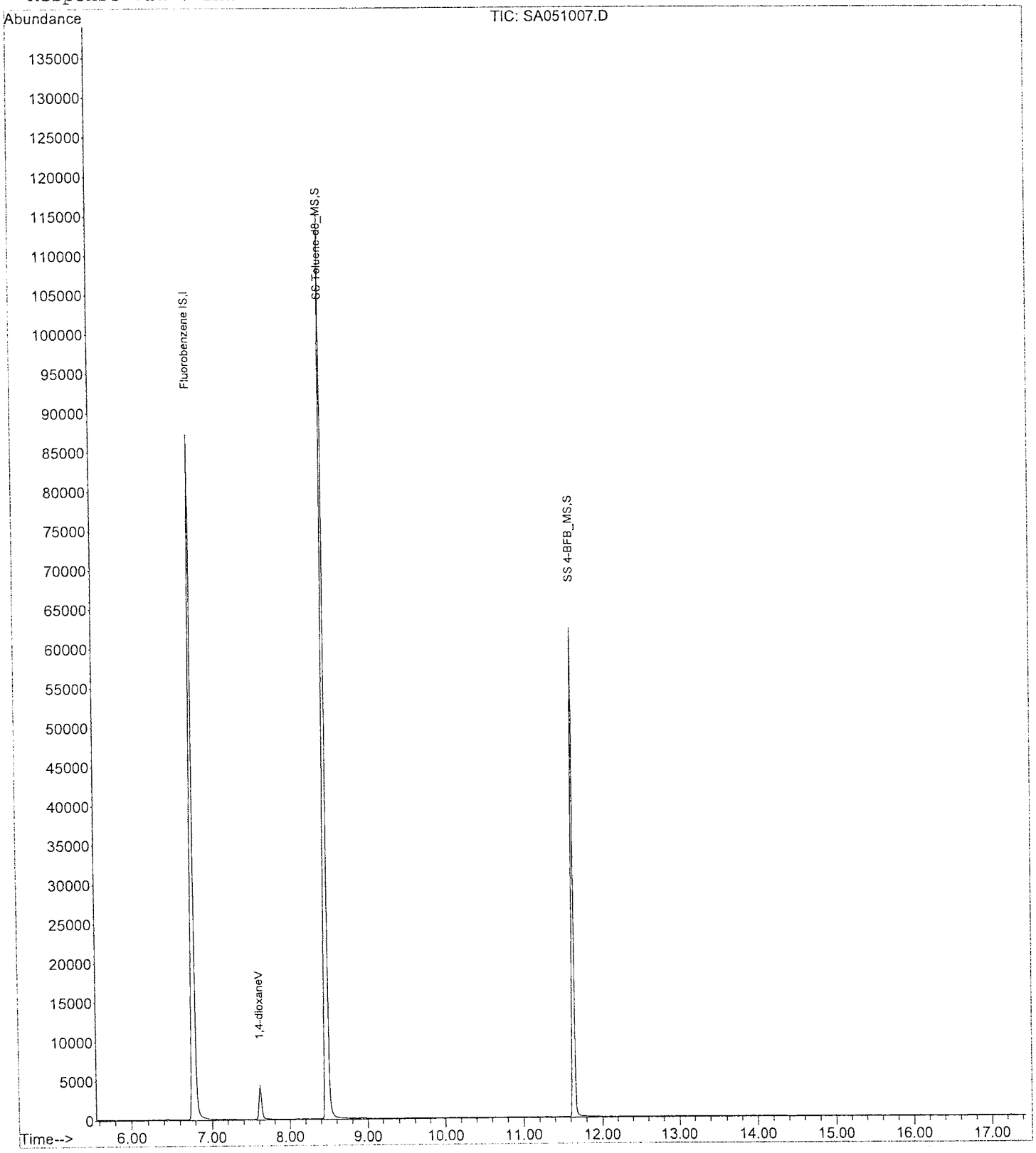
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	159671	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%			
4) SS 4-BFB_MS	11.64	95	58595	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

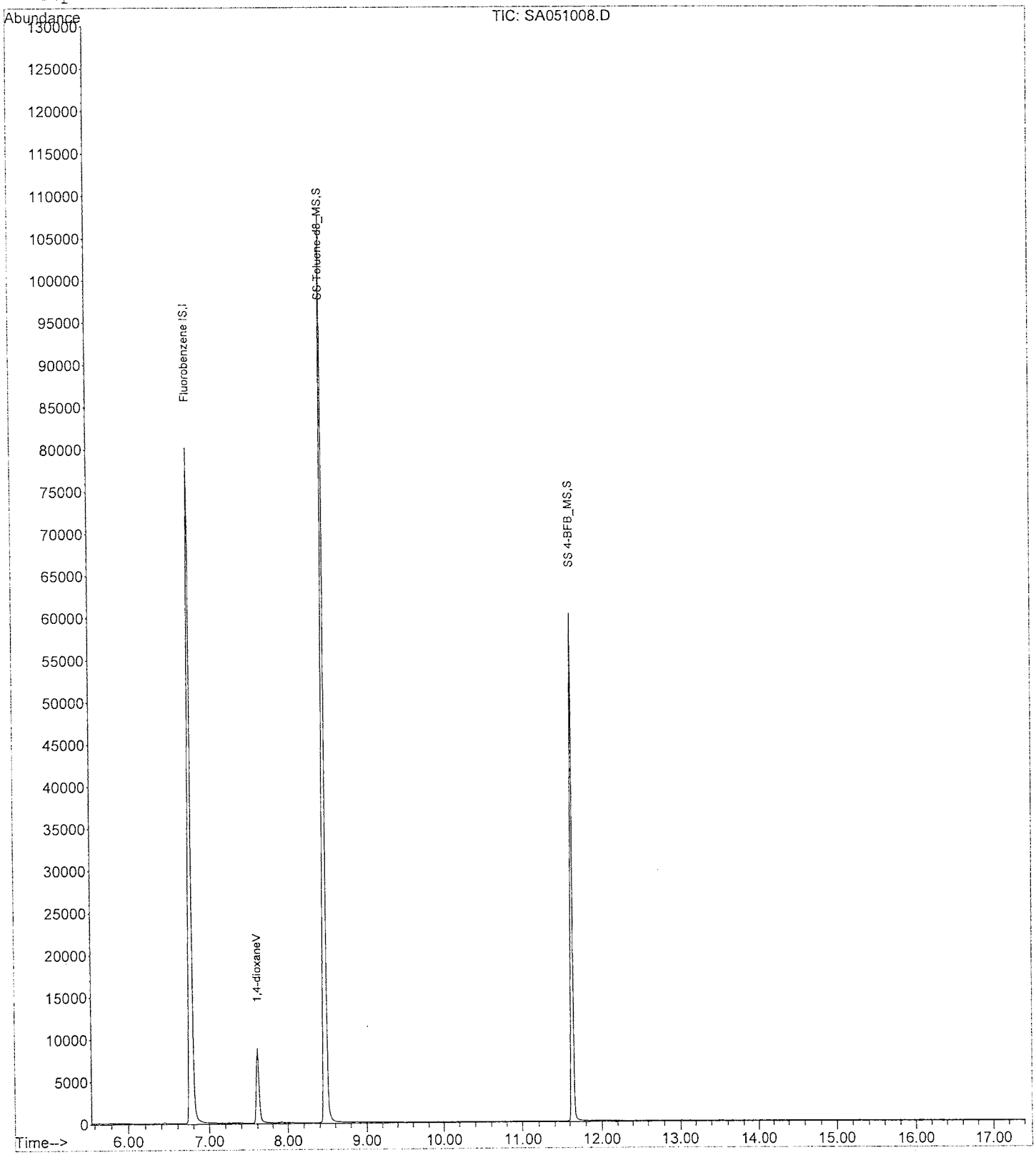
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	149017	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%			
4) SS 4-BFB_MS	11.64	95	55675	10.21	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

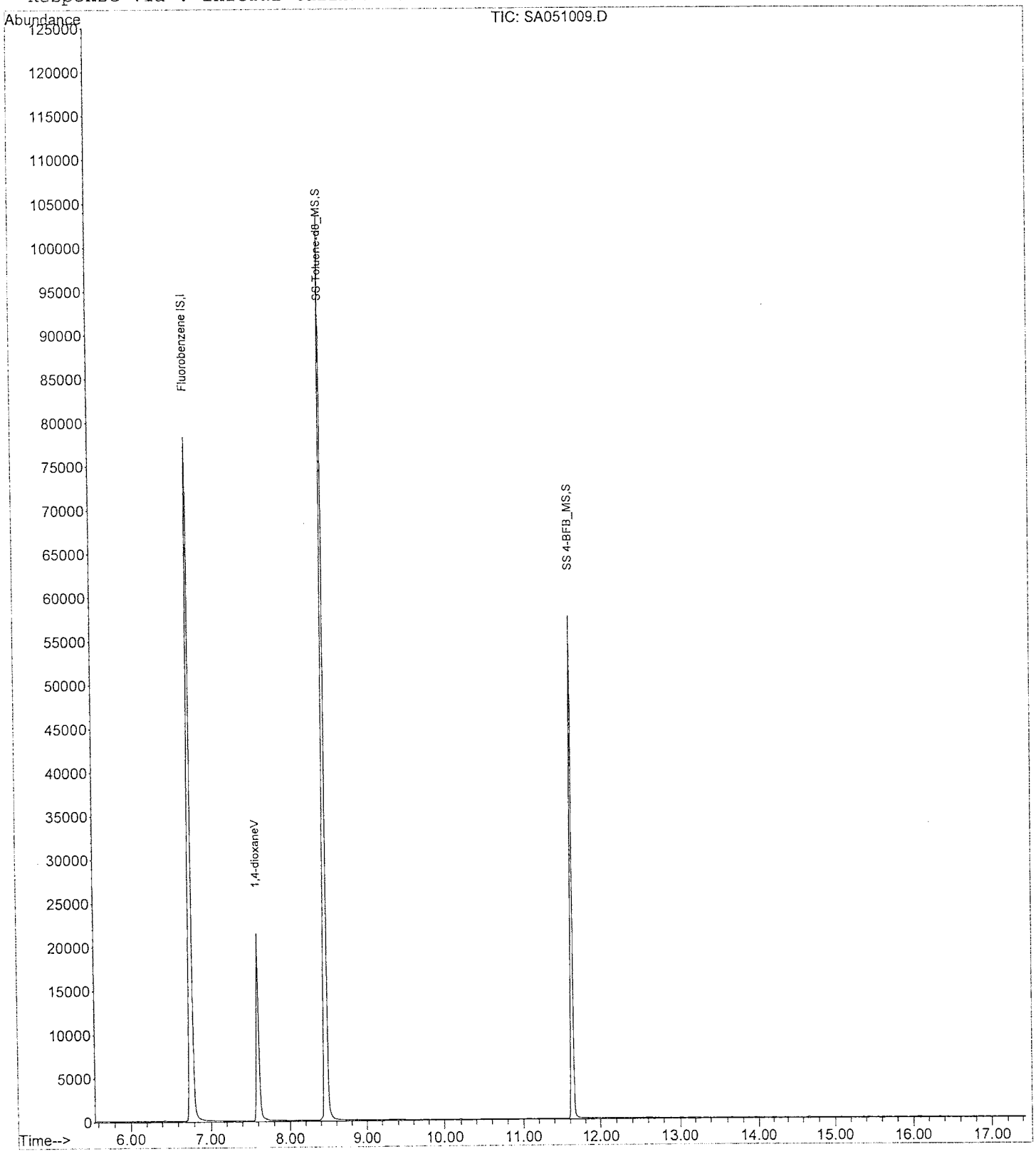
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	148830	9.89	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS	11.63	95	52945	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

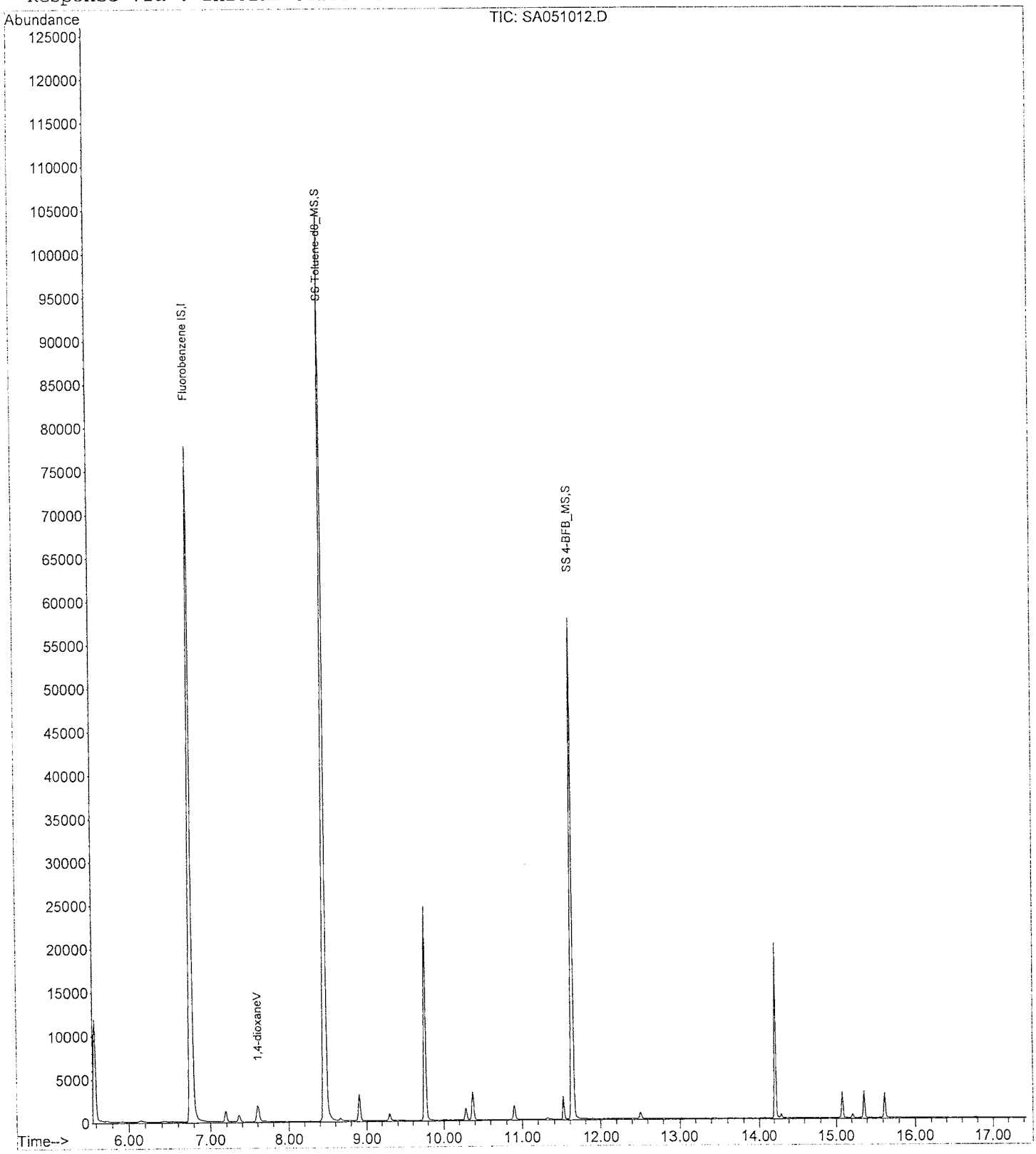
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%			
4) SS 4-BFB_MS	11.63	95	52679	10.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
professional laboratory & drilling services

123649
1,4-Dioxane VOC 8260B SIM
Support Data

IS/SS ID= V- 4039

Standard ID= V- 4040

Analyst: VG

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	5A08401	BRB		✓		X1	VOC MS1			
2	2	STD5		✓			VOCSIM	2SIM0510		
3	3	LCS		✓			VOC			
4	4	LCSD		✓			VOC			
5	5	BLANK		✓			VOC			
6	6	123513.02	✓	✓		X1	VOC			
7	7	123612.01		✓			VOC			
8	8	09		✓			VOC			
9	9	10		✓			VOC			
10	10	11		✓			VOC			
11	11	12		✓		↓	VOC			
12	12	123529.06	✓	✓		X20	VOC			
13	13	07	✓	✓			VOC			
14	14	08	✓	✓		↓	VOC			
15	15	09	✓	✓		X10	VOC			
16	16	STD.75		✓		X1	VOC			
17	17	BRB		✓			VOCMS1			
18	18	STD5		✓			VOCSIM			
19	19	LCS		✓			VOC			
20	20	LCSD		✓			VOC			
21	21	BLANK		✓			VOC			
22	22	123612.13		✓			VOC			
23	23	14		✓			VOC			
24	24	16		✓			VOC			
25	25	123649.03		✓			VOC			
26	26	05		✓		↓	VOC			
27	27	06		✓		X10	VOC			
28	28	01		✓			VOC			
29	29	02		✓			VOC			
30	30	01MS		✓			VOC			
31	31	01MSD		✓		↓	VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by [signature] 8/21/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2013\SA082017.D
Tune Time : 20 Aug 2013 10:20 pm

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2013\SA082018.D

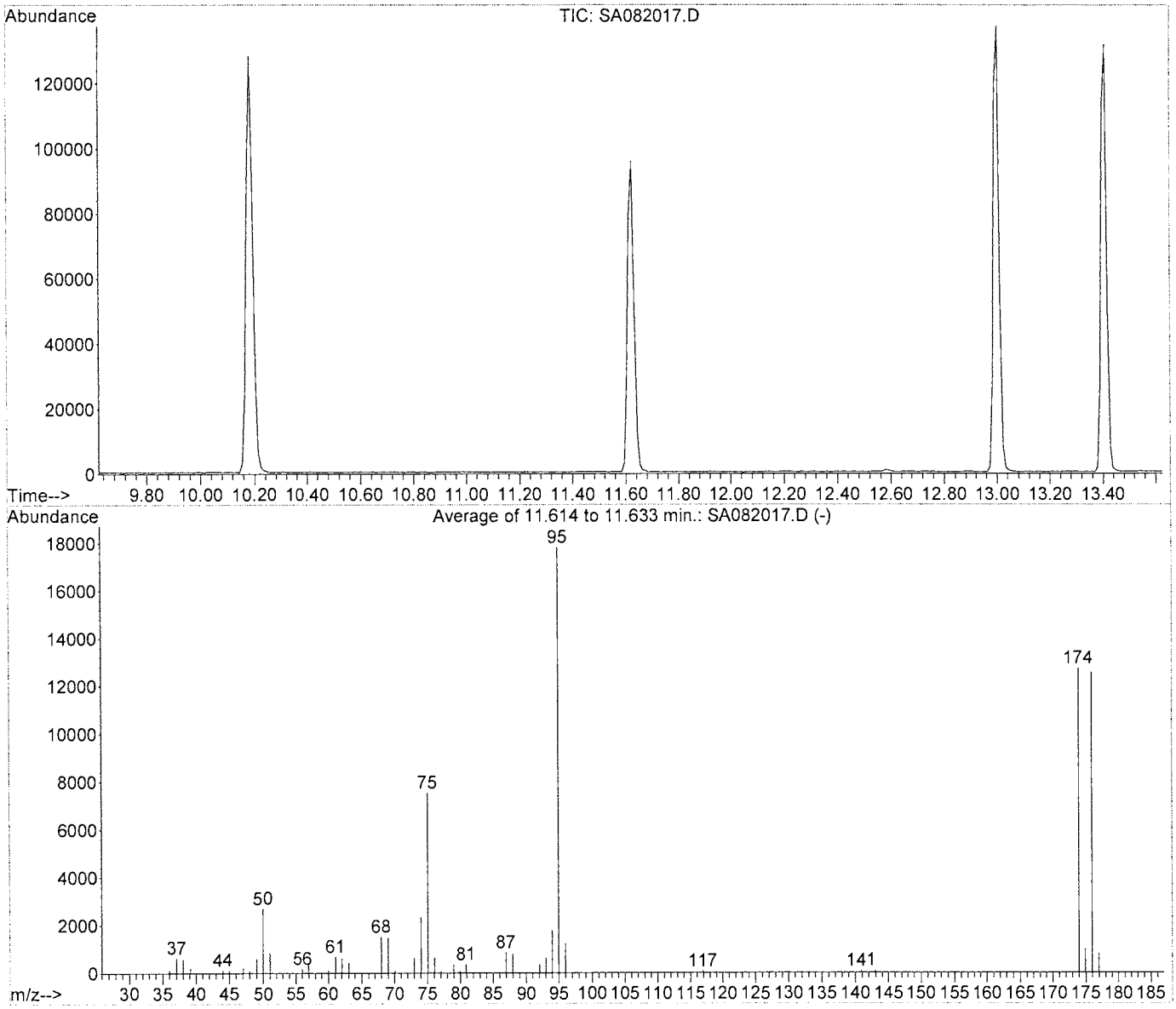
171621

File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082018.D	STD5	98	103	171621
SA082019.D	LCS5	95	103	172018
SA082020.D	LCSD5	101	103	172234
SA082021.D	BLANK	99	103	171876
SA082022.D	123612.13	102	111	172813
SA082023.D	123612.14	103	120	171595
SA082024.D	123612.16	97	106	178682
SA082025.D	123649.03	100	103	188061
SA082026.D	123649.05	101	103	186980
SA082027.D	123649.06	99	103	185421
SA082028.D	123649.01	100	103	181807
SA082029.D	123649.02	99	103	181209
SA082030.D	123649.01M	96	103	183290
SA082031.D	123649.01M	101	103	183164

t - fails 12hr time check * - fails criteria

Created: Wed Aug 21 10:51:17 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082017.D Vial: 17
Acq On : 20 Aug 2013 10:20 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.614 to 11.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	2699	PASS
75	95	30	60	42.3	7534	PASS
95	95	100	100	100.0	17814	PASS
96	95	5	9	6.9	1231	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.3	12710	PASS
175	174	5	9	7.8	987	PASS
176	174	95	101	98.6	12532	PASS
177	176	5	9	6.4	802	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082018.D Vial: 18
Acq On : 20 Aug 2013 11:13 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	108	-0.01
2		1,4-dioxaneV	5.000	4.765	4.7	103	-0.01
3	S	SS Toluene-d8_MS	10.000	9.823	1.8	105	-0.01
4	S	SS 4-BFB_MS	10.000	10.287	-2.9	112	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 15:15:36 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082018.D Vial: 18
Acq On : 20 Aug 2013 11:13 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:14:11 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

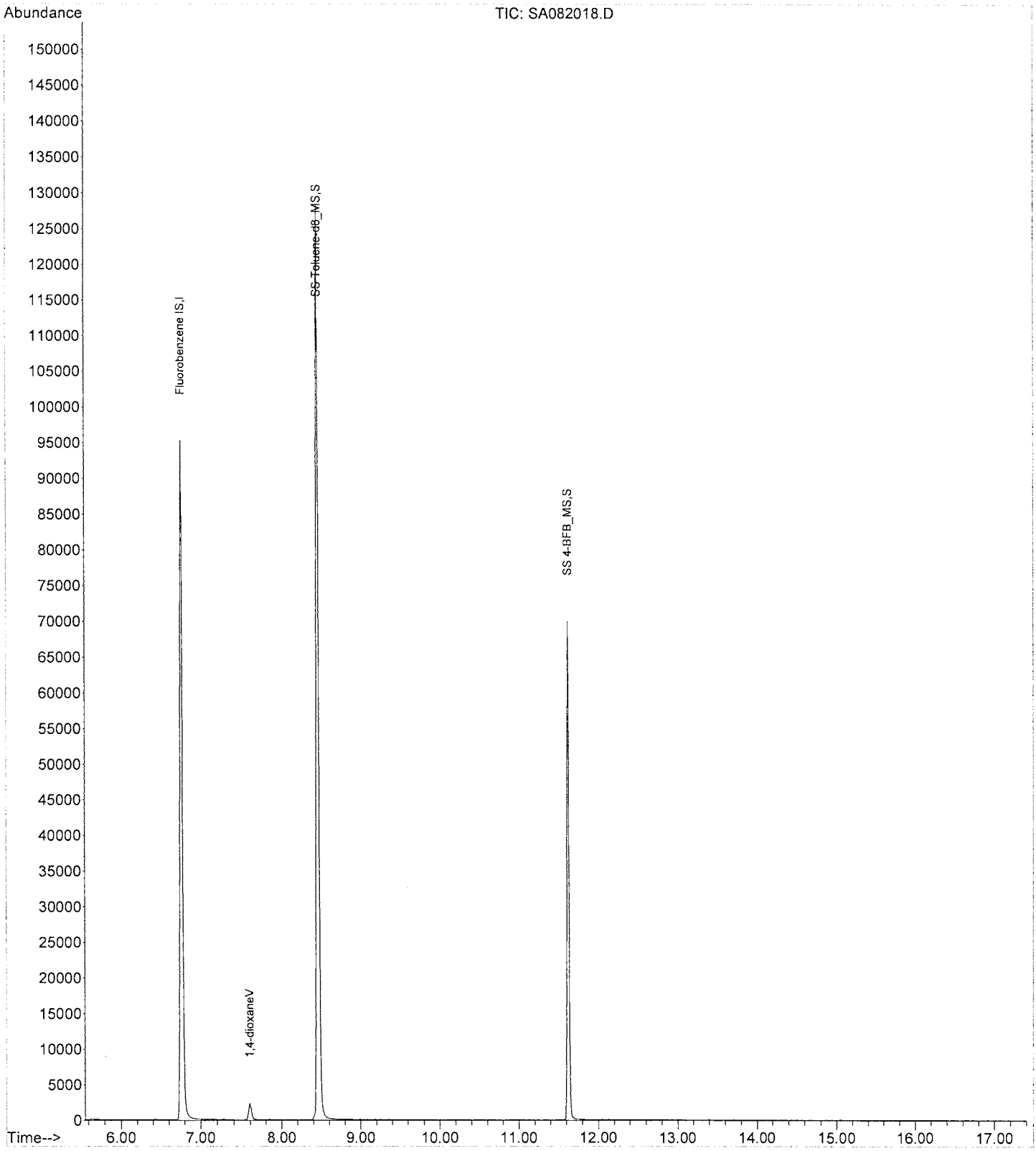
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	171621	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	174989	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.23%			
4) SS 4-BFB_MS	11.62	95	65645	10.29	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.87%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3432	4.765	ug/L	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082018.D Vial: 18
Acq On : 20 Aug 2013 11:13 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:12 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082019.D Vial: 19
Acq On : 21 Aug 2013 12:05 am Operator: VG
Sample : LCSaA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:14:20 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

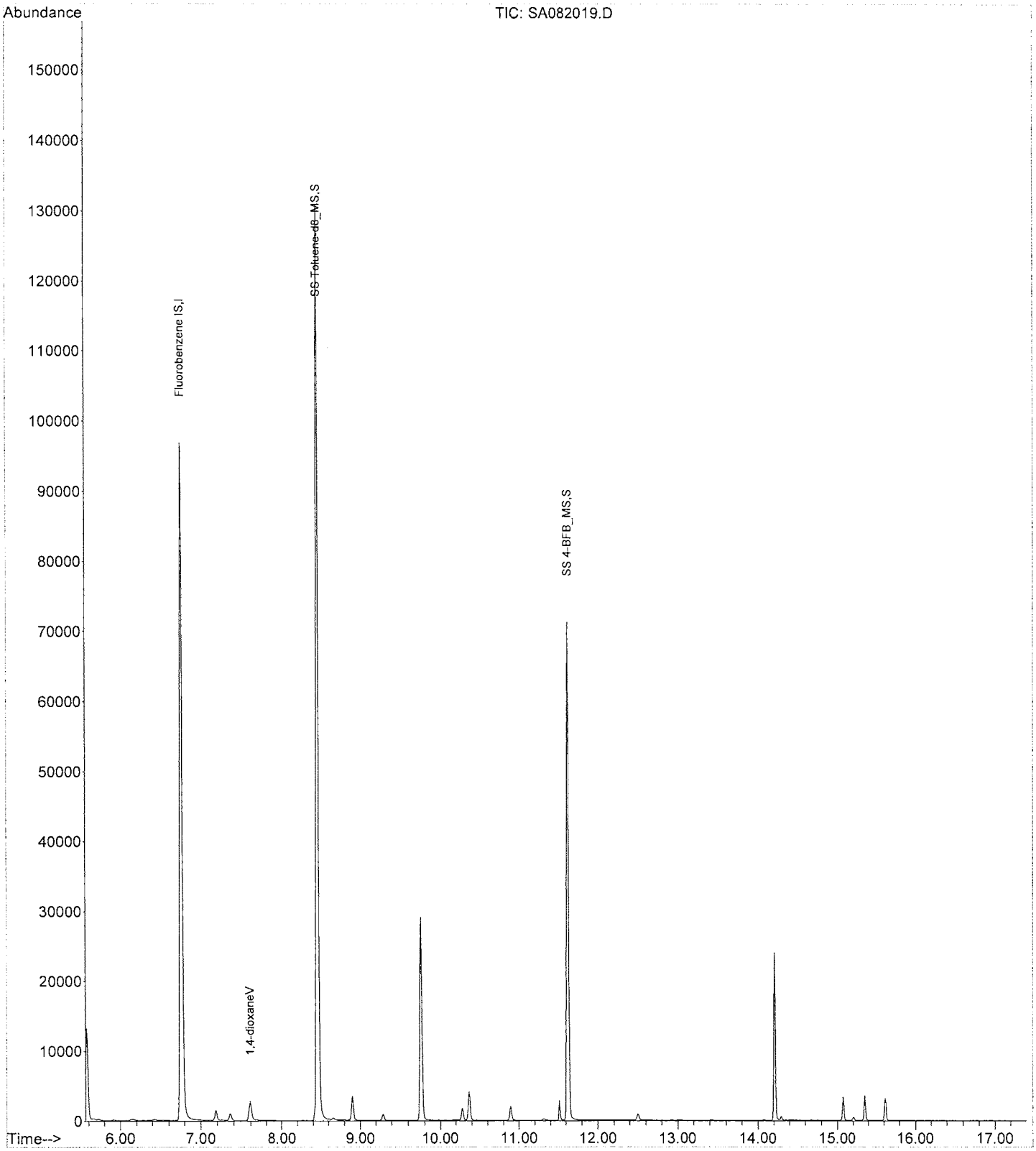
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	172018	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	169816	9.51	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.10%			
4) SS 4-BFB_MS	11.62	95	65801	10.29	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.87%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3741m	5.182	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082019.D Vial: 19
Acq On : 21 Aug 2013 12:05 am Operator: VG
Sample : LCSaA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 9:42 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082020.D Vial: 20
Acq On : 21 Aug 2013 12:58 am Operator: VG
Sample : LCSDA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:14:30 2013 Quant Results File: 2SIM0510.RES

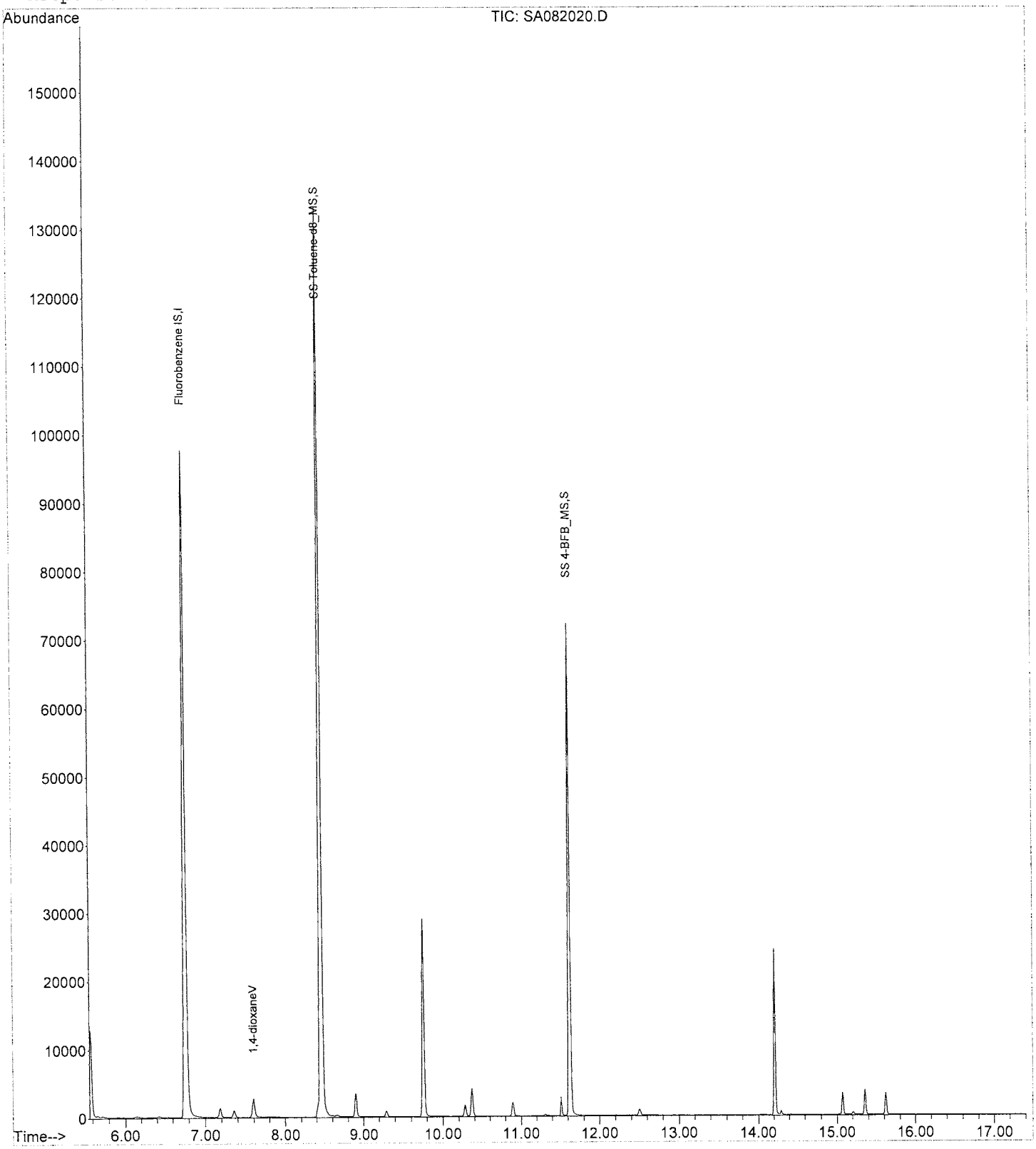
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	172234	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	179911	10.06	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.63%			
4) SS 4-BFB_MS	11.62	95	66128	10.33	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.26%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.60	88	3682m	5.094	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082020.D Vial: 20
Acq On : 21 Aug 2013 12:58 am Operator: VG
Sample : LCSDA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 9:43 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082021.D Vial: 21
Acq On : 21 Aug 2013 1:50 am Operator: VG
Sample : BlnkA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:14:39 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

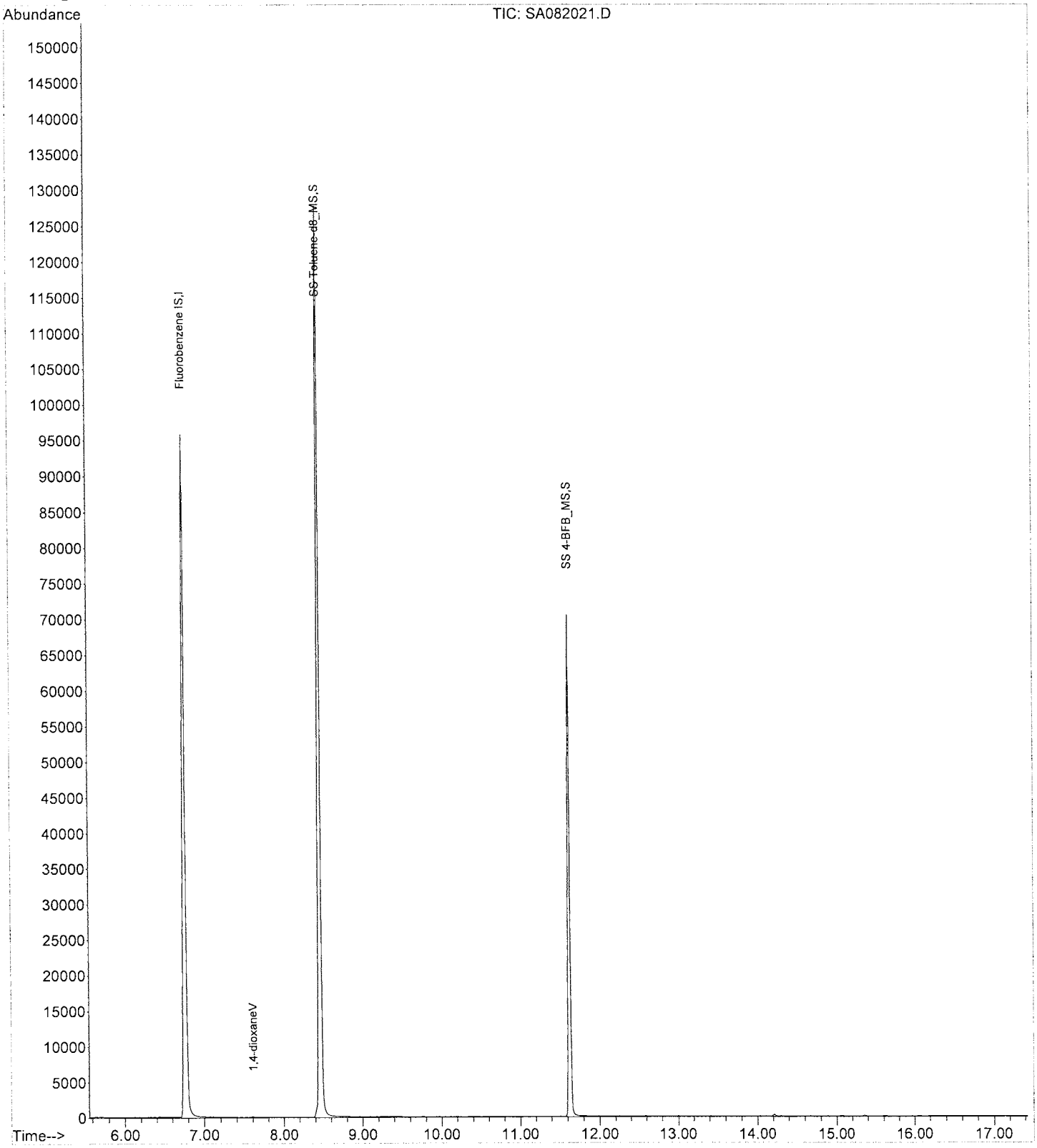
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	171876	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	176357	9.88	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.85%			
4) SS 4-BFB_MS	11.63	95	65666	10.27	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.75%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	78	0.108	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082021.D Vial: 21
Acq On : 21 Aug 2013 1:50 am Operator: VG
Sample : BlnkA082013V82602 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:12 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082025.D Vial: 25
Acq On : 21 Aug 2013 5:11 am Operator: VG
Sample : 123649.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:54 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.77	96	188061	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	194436	9.96	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.60%		
4) SS 4-BFB_MS		11.63	95	71767	10.26	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	102.63%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	475	0.602	ug/L	88

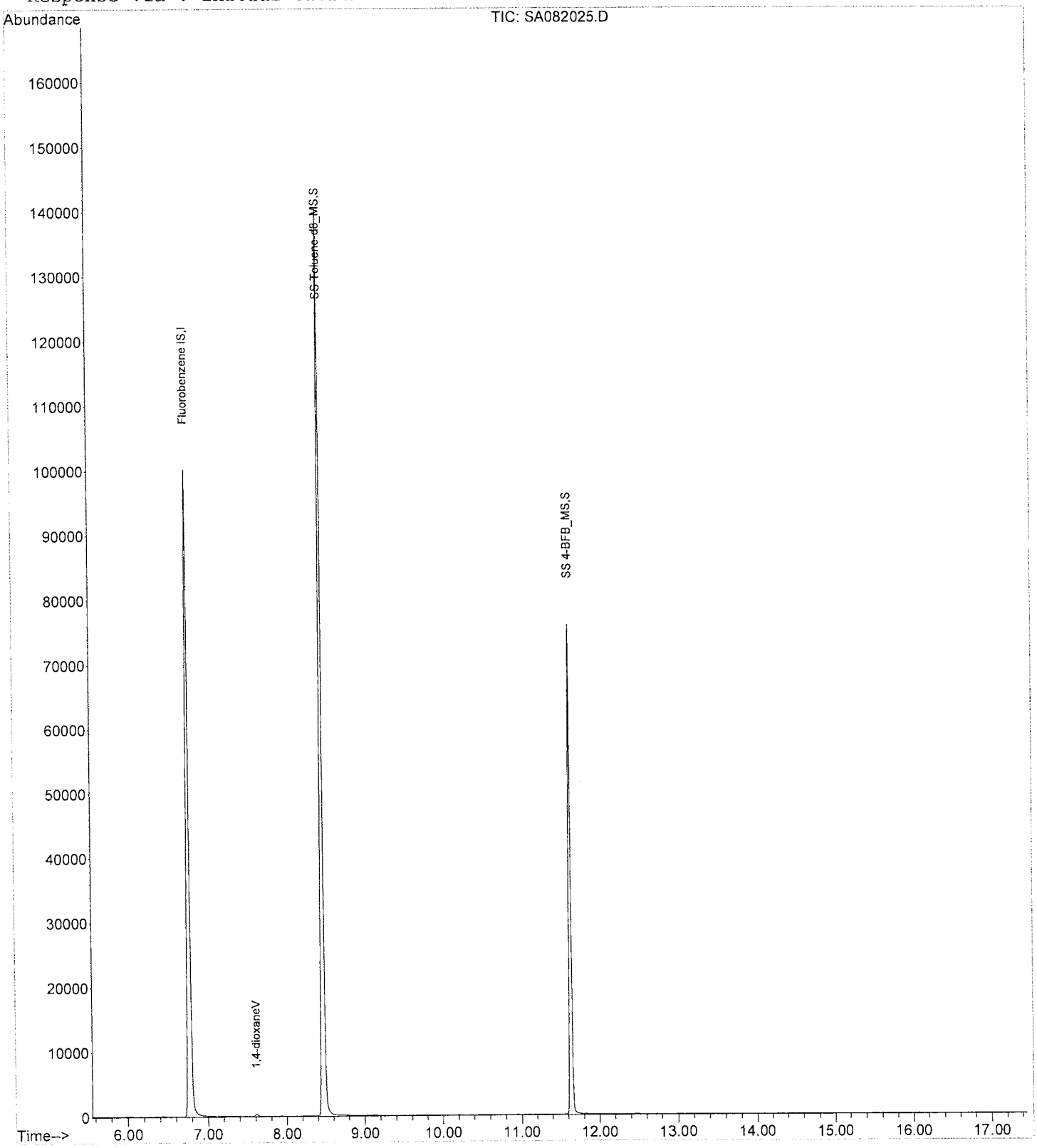
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082025.D 2SIM0510.M Wed Aug 21 08:17:54 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082025.D Vial: 25
Acq On : 21 Aug 2013 5:11 am Operator: VG
Sample : 123649.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:16 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082026.D Vial: 26
Acq On : 21 Aug 2013 6:00 am Operator: VG
Sample : 123649.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:17:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	186980	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	195520	10.07	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.74%			
4) SS 4-BFB_MS	11.63	95	71865	10.34	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.36%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	500	0.637	ug/L #	20

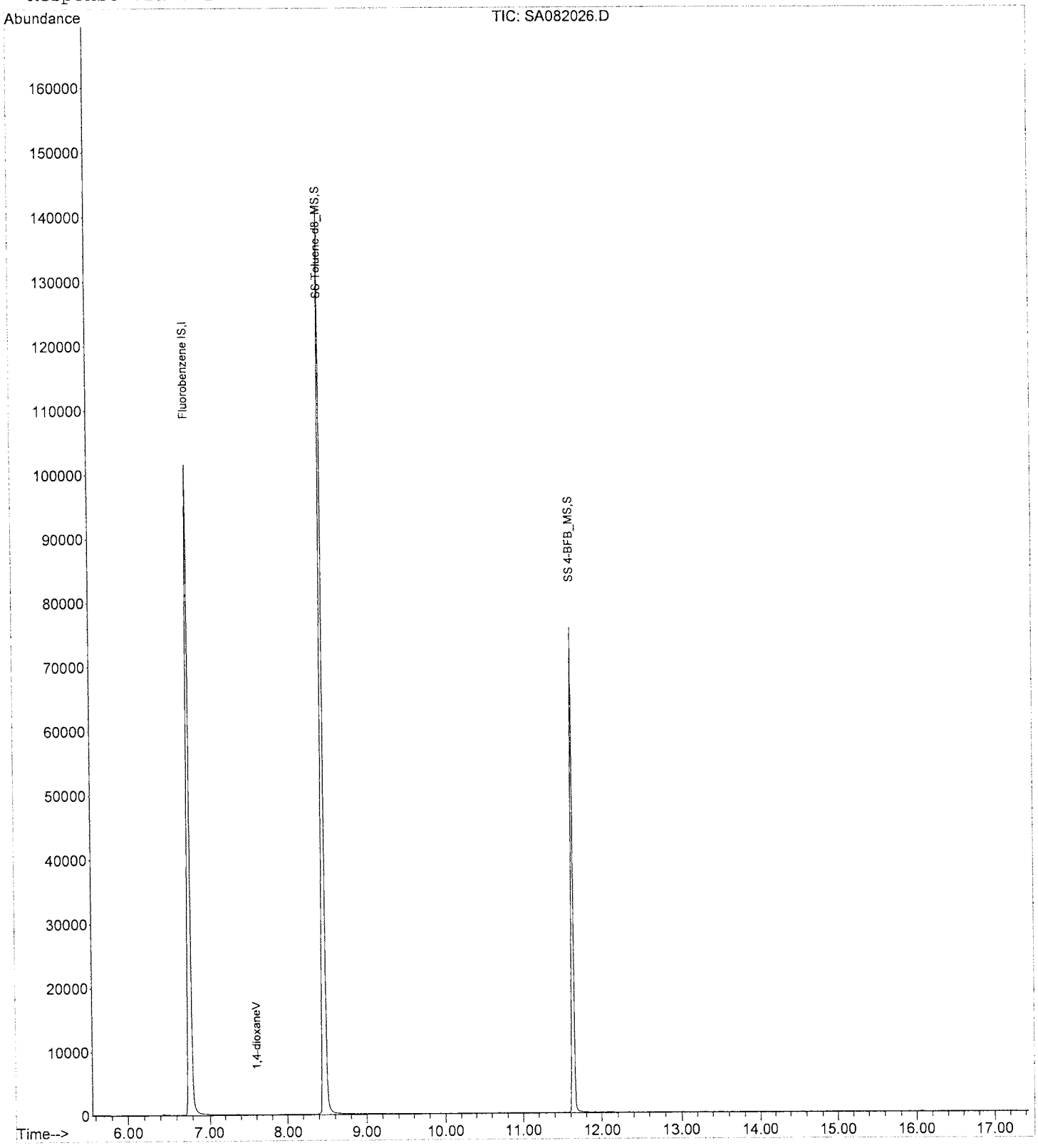
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082026.D 2SIM0510.M Wed Aug 21 08:17:57 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082026.D Vial: 26
Acq On : 21 Aug 2013 6:00 am Operator: VG
Sample : 123649.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:16 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082027.D Vial: 27
Acq On : 21 Aug 2013 6:49 am Operator: VG
Sample : 123649.06 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:18:00 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	185421	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	190614	9.90 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.04%		
4) SS 4-BFB_MS	11.63	95	70678	10.25 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.51%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	1618	2.079 ug/L	96

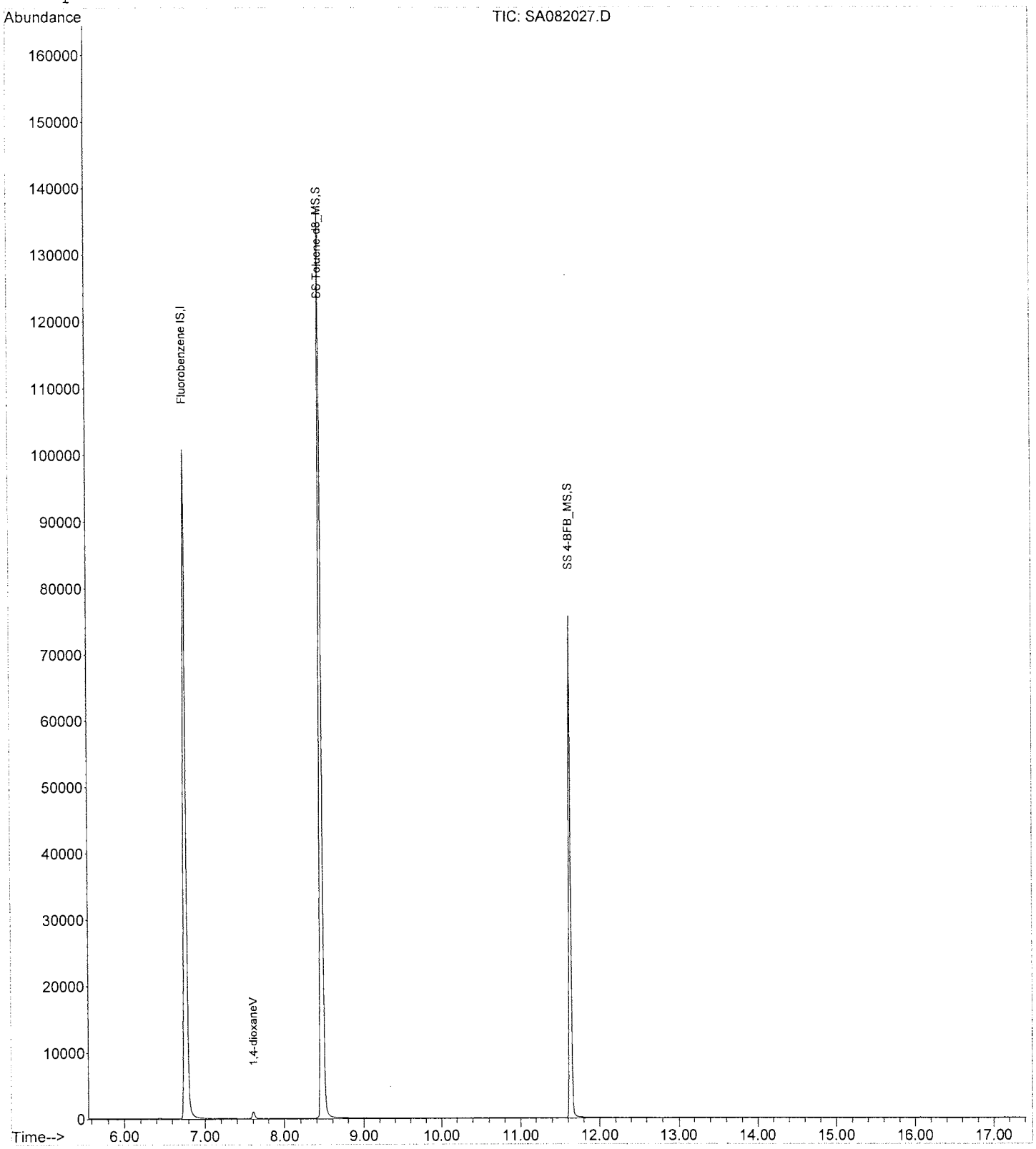
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082027.D Vial: 27
Acq On : 21 Aug 2013 6:49 am Operator: VG
Sample : 123649.06 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:16 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082028.D Vial: 28
Acq On : 21 Aug 2013 7:37 am Operator: VG
Sample : 123649.01 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 08:18:03 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	181807	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	188600	9.99	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.94%			
4) SS 4-BFB_MS	11.63	95	69930	10.34	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.44%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2380	~~3.119~~ 2.18	ug/L	92

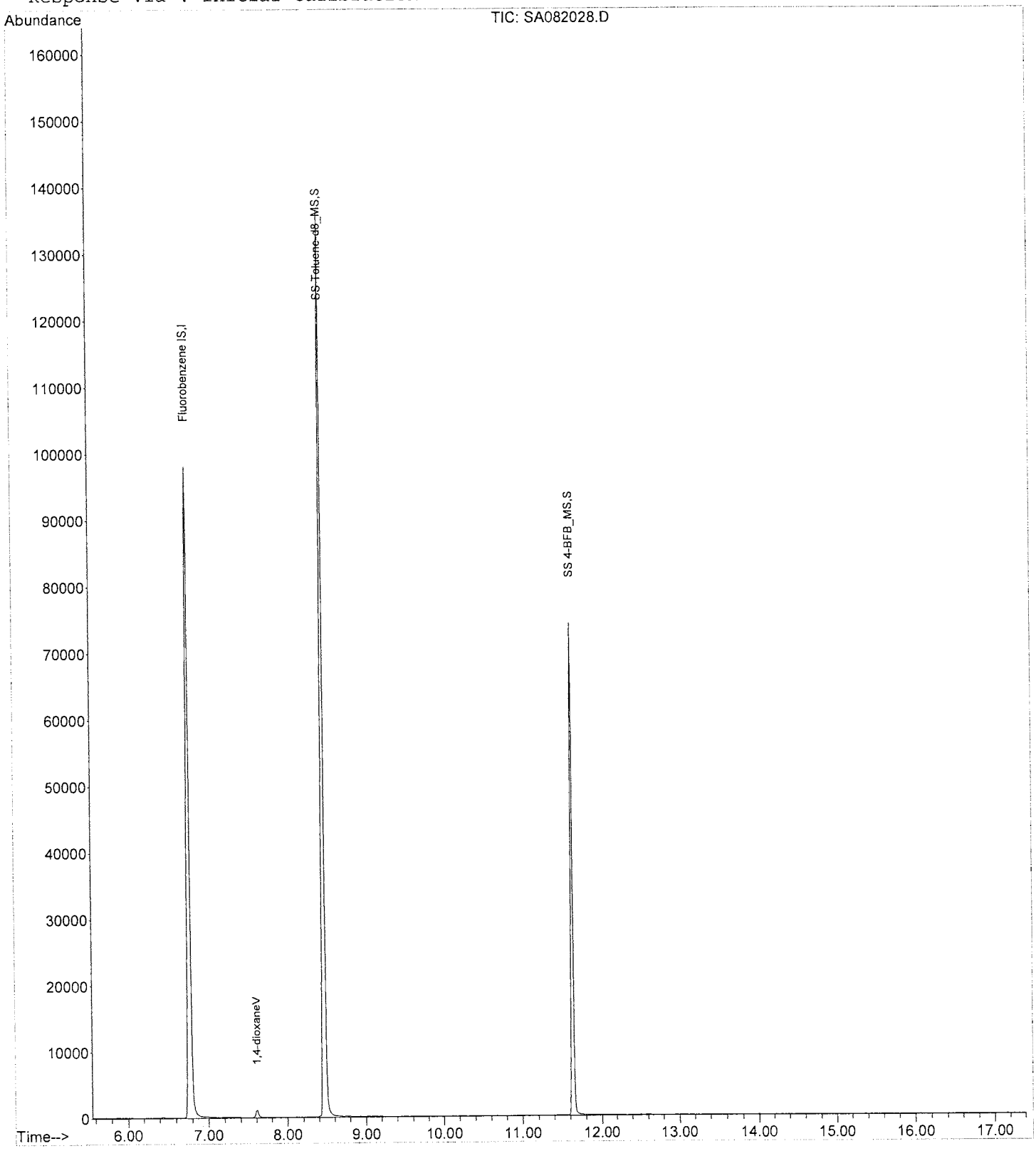
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082028.D Vial: 28
Acq On : 21 Aug 2013 7:37 am Operator: VG
Sample : 123649.01 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 8:16 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082029.D Vial: 29
Acq On : 21 Aug 2013 8:26 am Operator: VG
Sample : 123649.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 09:47:08 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	181209	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	186985	9.94 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%		
4) SS 4-BFB_MS	11.63	95	69356	10.29 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.93%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	1832	2.409 ug/L	99

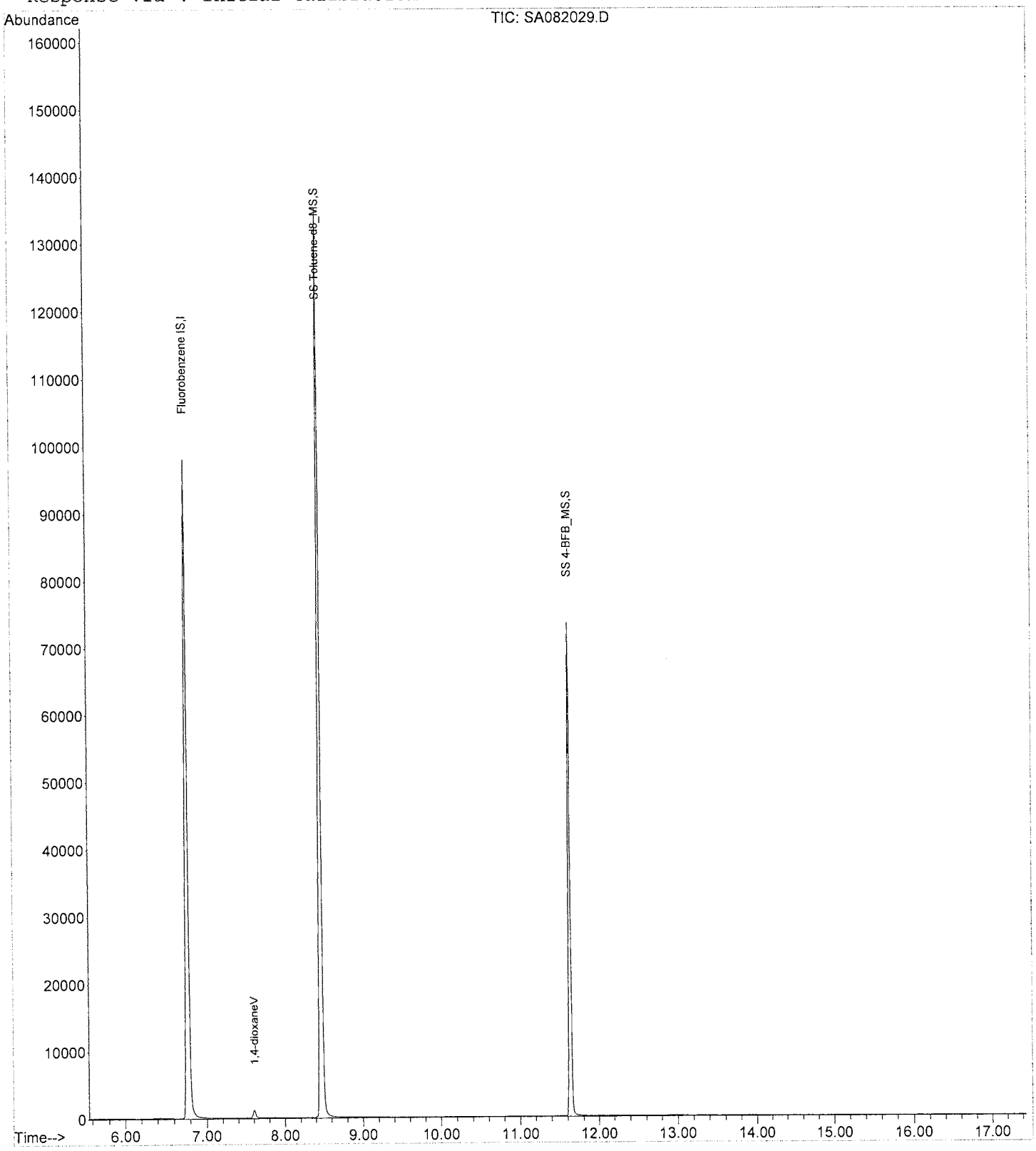
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082029.D 2SIM0510.M Wed Aug 21 09:47:08 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082029.D Vial: 29
Acq On : 21 Aug 2013 8:26 am Operator: VG
Sample : 123649.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 9:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082030.D Vial: 30
Acq On : 21 Aug 2013 9:15 am Operator: VG
Sample : MSpkA082013V82601 123649.01MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 09:47:11 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

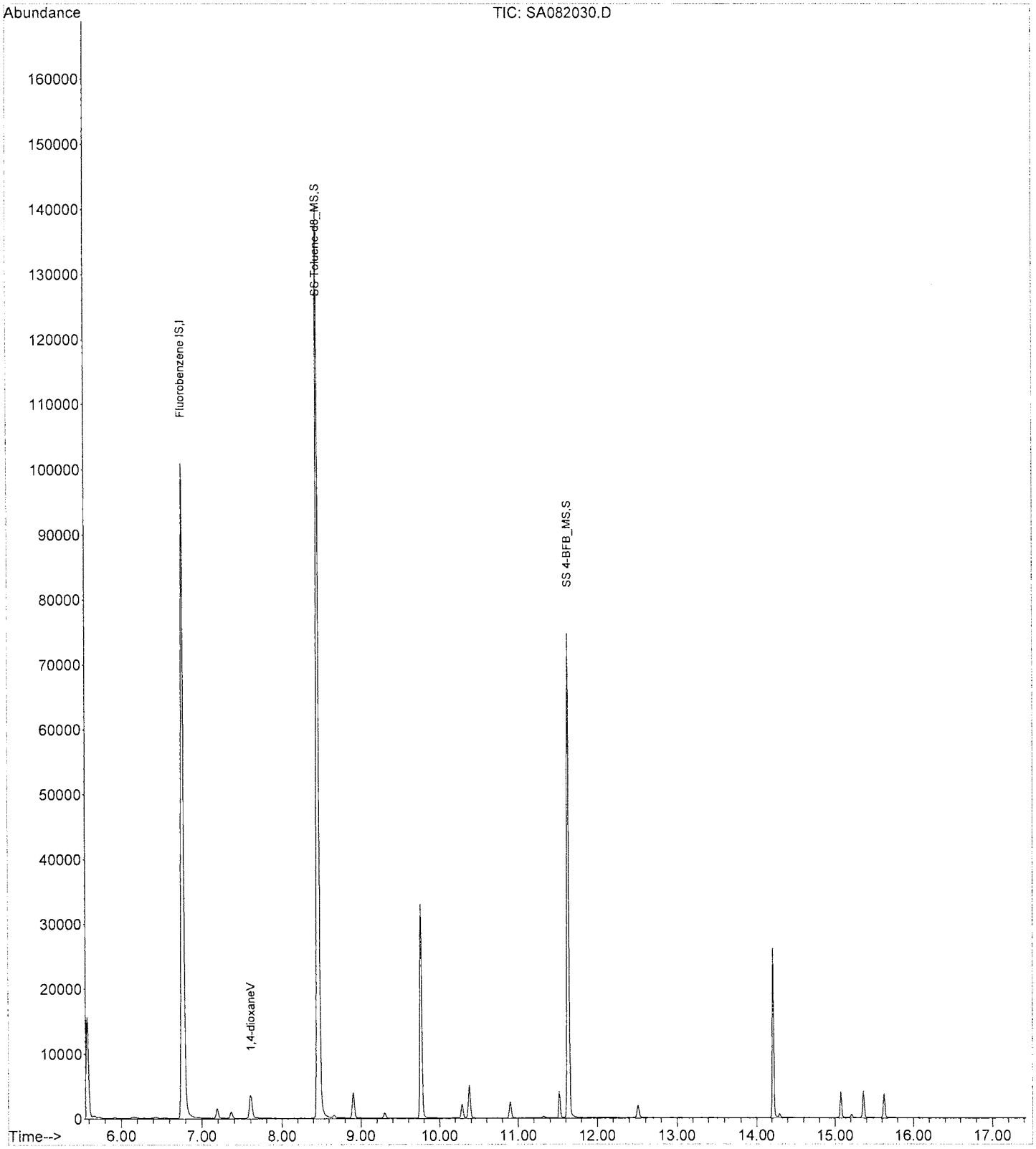
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	183290	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	183176	9.63	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.28%			
4) SS 4-BFB_MS	11.63	95	70158	10.29	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.94%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	5203m	6.764	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082030.D Vial: 30
Acq On : 21 Aug 2013 9:15 am Operator: VG
Sample : MSpkA082013V82601 123649.01 MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:04 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082031.D Vial: 31
Acq On : 21 Aug 2013 10:04 am Operator: VG
Sample : MSDuA082013V82601 123649.01LISD Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 10:50:01 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	183164	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	191317	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.63%			
4) SS 4-BFB_MS	11.63	95	70414	10.34	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.39%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	4552m	5.922	ug/L	

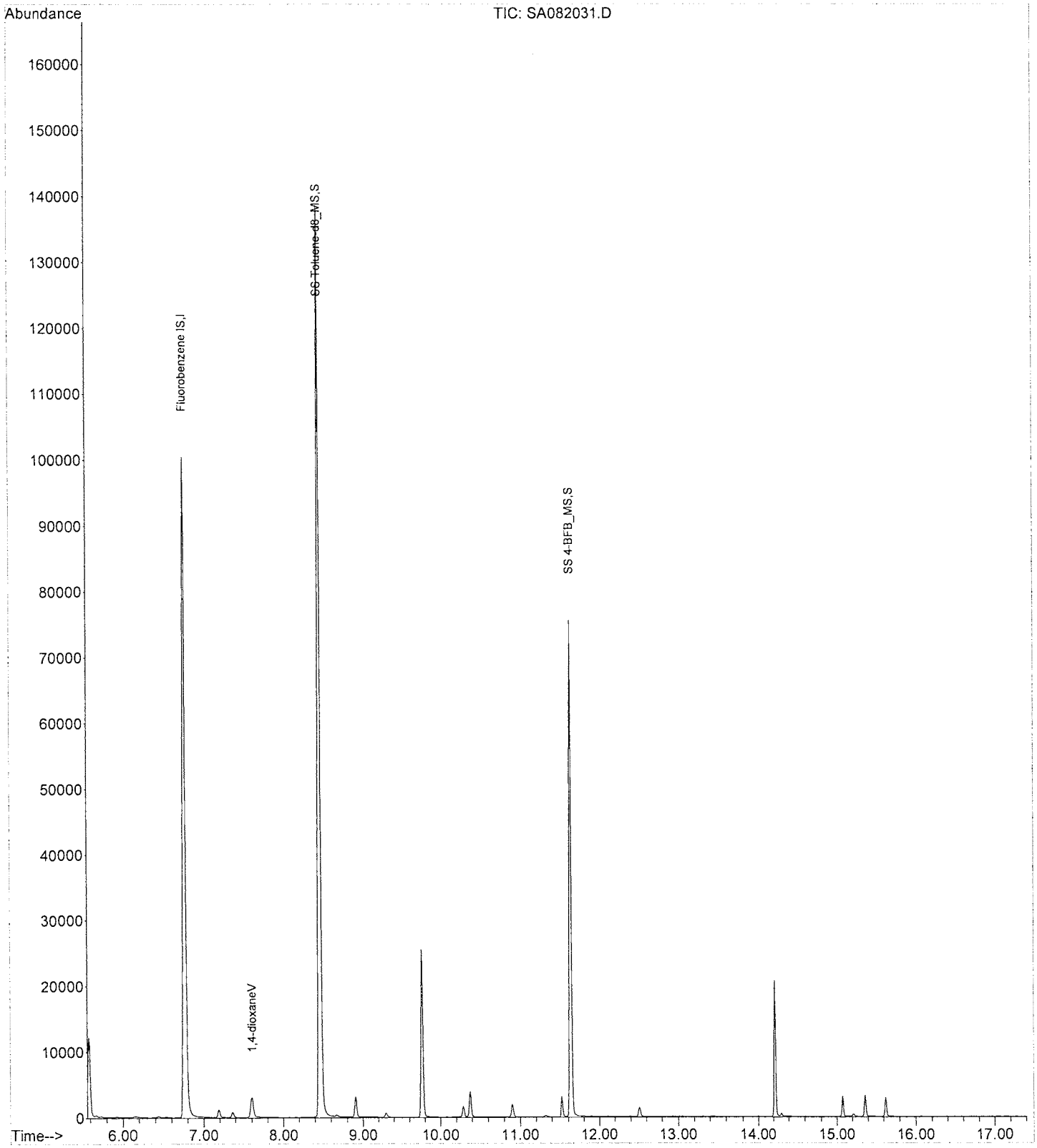
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2013\SA082031.D Vial: 31
Acq On : 21 Aug 2013 10:04 am Operator: VG
Sample : MSDuA082013V82601 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 10:48 2013 Quant Results File: 2SIM0510.RES

123649.01 MSD
8/22/13

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



IS/SS ID= V- 4079
Standard ID= V- 4040
LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 8/21/23

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	A08101	BMB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	5114SQ		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank				↓	VOC			
6	6	123649.06 MS				X10	VOC			
7	7	MSD				X10	VOC			
8	8	123680.01				X5	VOC			
9	9	03				X5	VOC			
10	10	04				X10	VOC			
11	11	06				X1	VOC			
12	12	123705.01					VOC			
13	13	07					VOC			
14	14	04					VOC			
15	15	05					VOC			
16	16	STD.25					VOC			
17	17	BMB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123705.06					VOC			
23	23	07					VOC			
24	24	08					VOC			
25	25	09					VOC			
26	26	10					VOC			
27	27	123704.06				↓	VOC			
28	28	02				X10	VOC			
29	29	03					VOC			
30	30	DUP					VOC			
31	31	DUP		✓		↓	VOC			
							VOC			
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							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by _____

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D
Tune Time : 21 Aug 2013 11:16 am

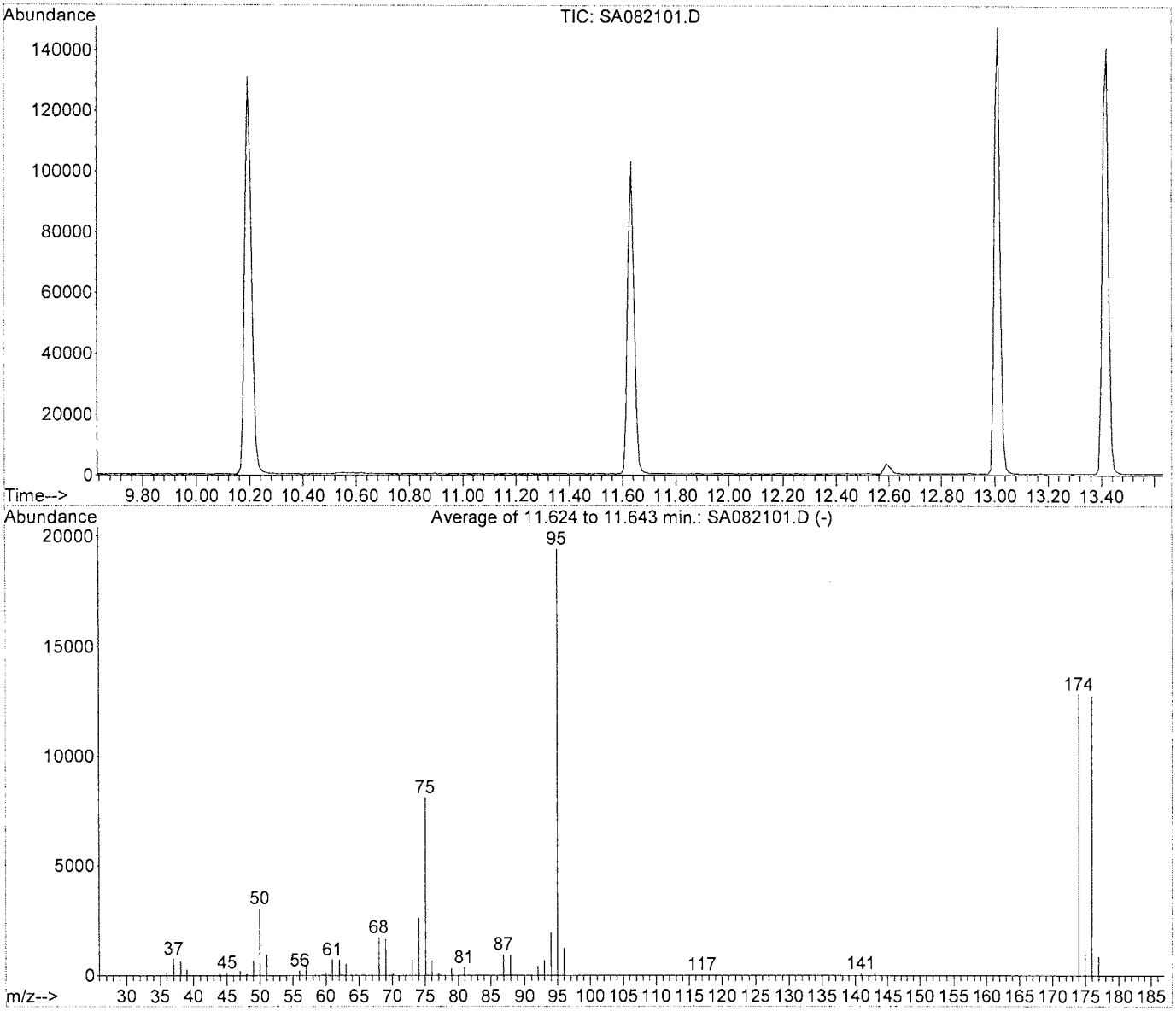
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D

				181533
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082102.D	STD5	97	109	181533
SA082103.D	LCS5	95	104	178431
SA082104.D	LCSD	97	104	178225
SA082105.D	BLANK	96	105	176829
SA082106.D	123649.06M	102	106	174878
SA082107.D	123649.06M	97	105	175883
SA082108.D	123650.01	102	108	174522
SA082109.D	123650.03	100	107	176431
SA082110.D	123650.04	101	106	177560
SA082111.D	123650.06	96	107	166242
SA082112.D	123705.01	97	109	157923
SA082113.D	123705.02	98	111	157712
SA082114.D	123705.04	97	109	158204
SA082115.D	123705.05	97	110	157532
SA082116.D	tSTD0.25	101	110	159681

t - fails 12hr time check * - fails criteria

Created: Thu Aug 22 09:03:49 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D Vial: 1
Acq On : 21 Aug 2013 11:16 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.624 to 11.643 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	3059	PASS
75	95	30	60	41.7	8107	PASS
95	95	100	100	100.0	19418	PASS
96	95	5	9	6.5	1256	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.1	12837	PASS
175	174	5	9	7.5	967	PASS
176	174	95	101	99.3	12747	PASS
177	176	5	9	6.9	875	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	114	0.00
2		1,4-dioxaneV	5.000	4.026	19.5	92	0.00
3	S	SS Toluene-d8_MS	10.000	9.669	3.3	109	0.00
4	S	SS 4-BFB_MS	10.000	10.854	-8.5	125	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 15:34:00 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 12:25:25 2013 Quant Results File: 2SIM0510.RES

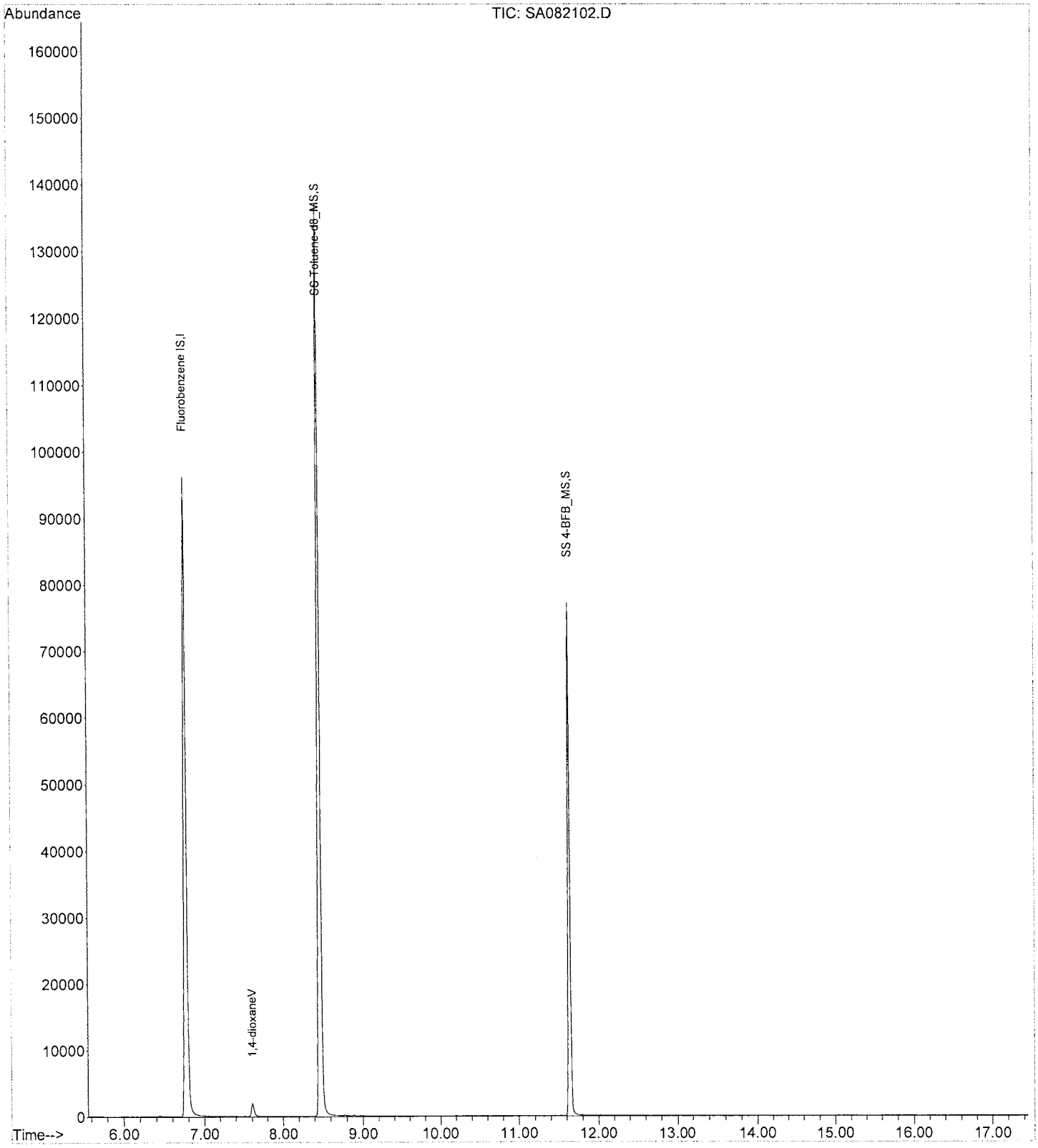
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	181533	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	182190	9.67	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.69%			
4) SS 4-BFB_MS	11.63	95	73262	10.85	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.54%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3067m	4.026	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:48 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

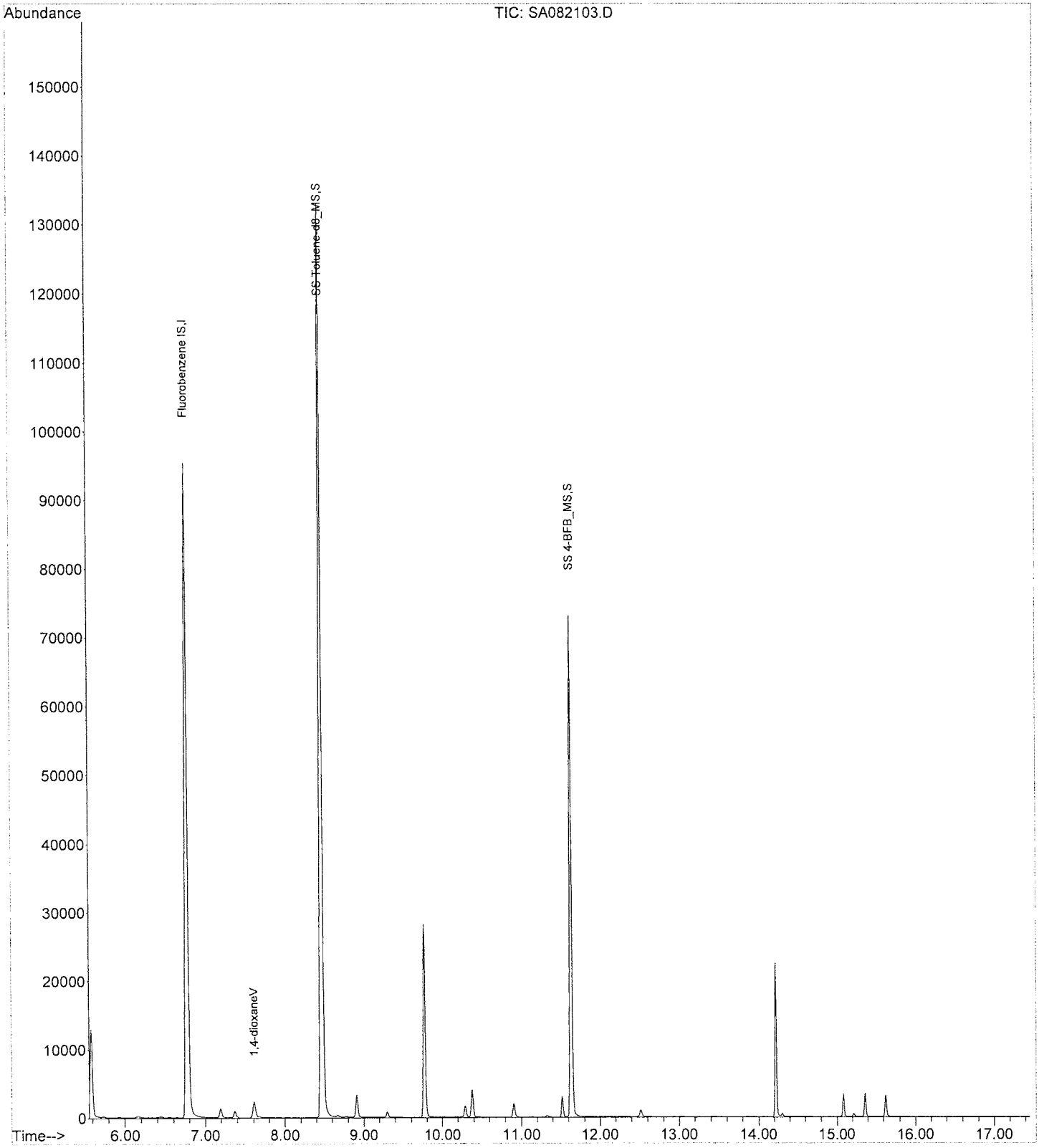
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178431	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176592	9.53	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.35%			
4) SS 4-BFB_MS	11.64	95	68955	10.39	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.93%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3230m	4.313	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:58 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

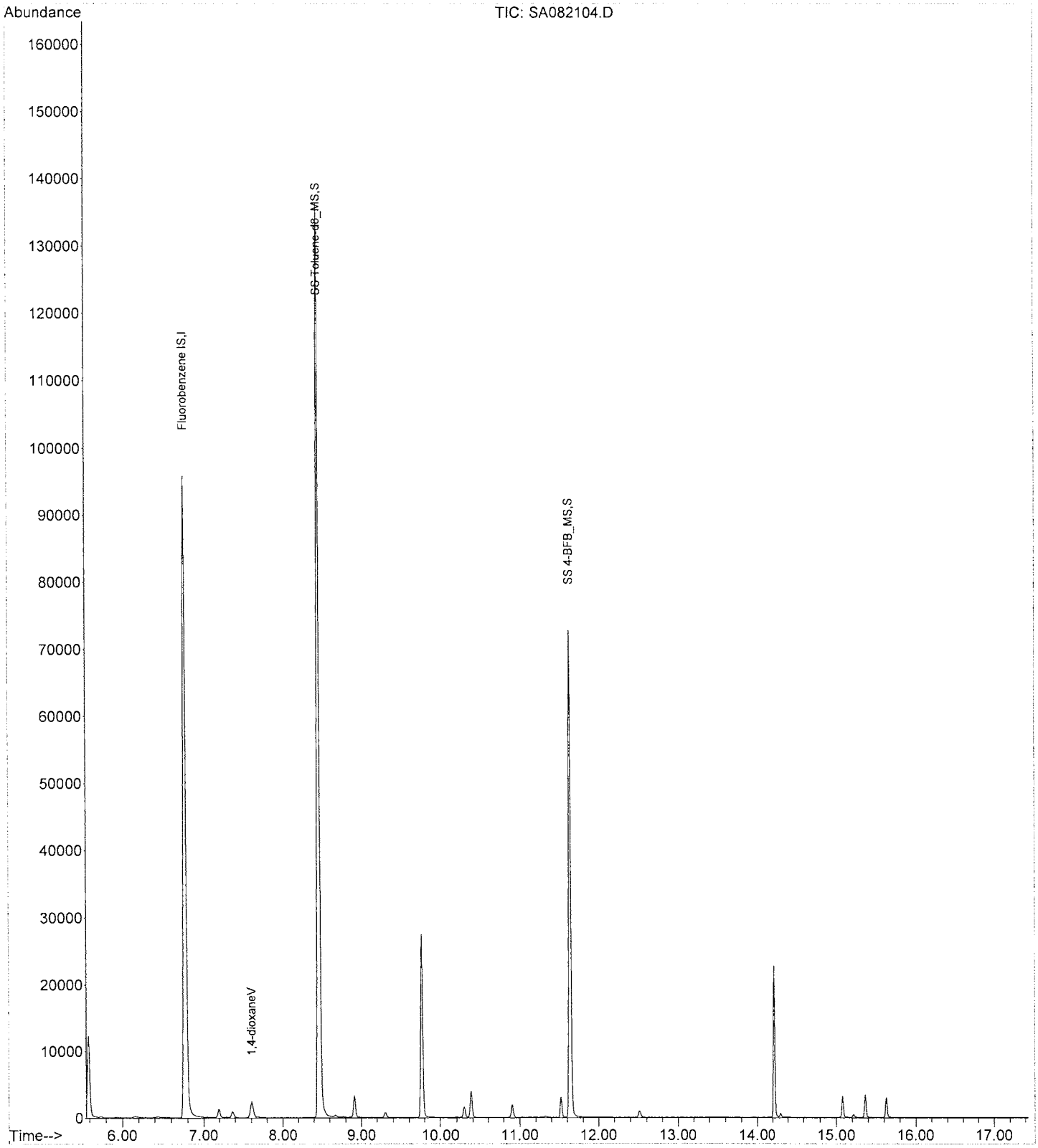
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178225	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178660	9.66	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.57%			
4) SS 4-BFB_MS	11.64	95	69038	10.42	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3330m	4.452	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082104.D 2SIM0510.M Thu Aug 22 15:34:27 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:34:17 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

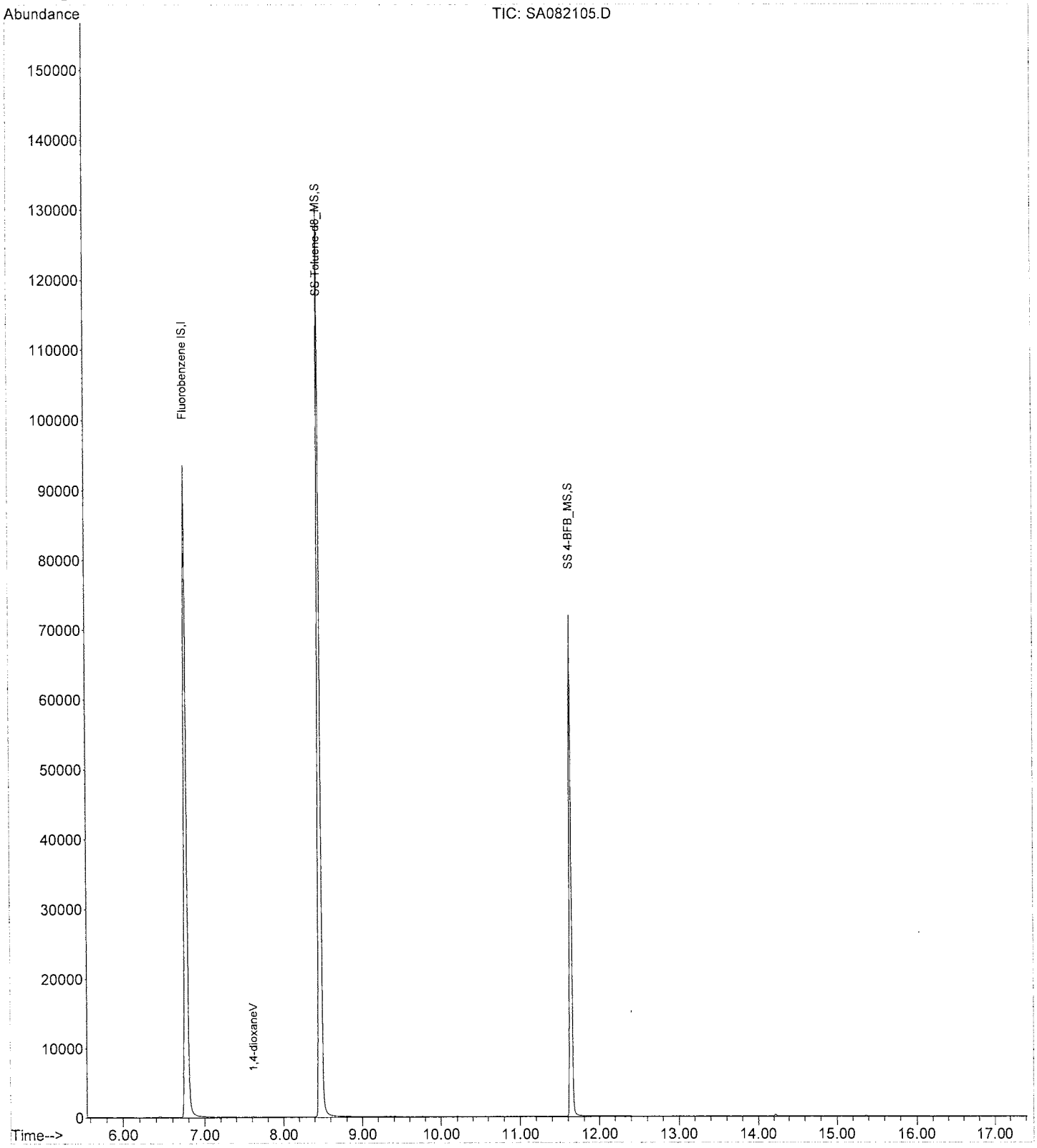
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176829	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	175780	9.58	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.77%			
4) SS 4-BFB_MS	11.64	95	68723	10.45	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.52%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	91m	0.123	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082106.D Vial: 6
Acq On : 21 Aug 2013 3:19 pm Operator: VG
Sample : 123649.06MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:00:56 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

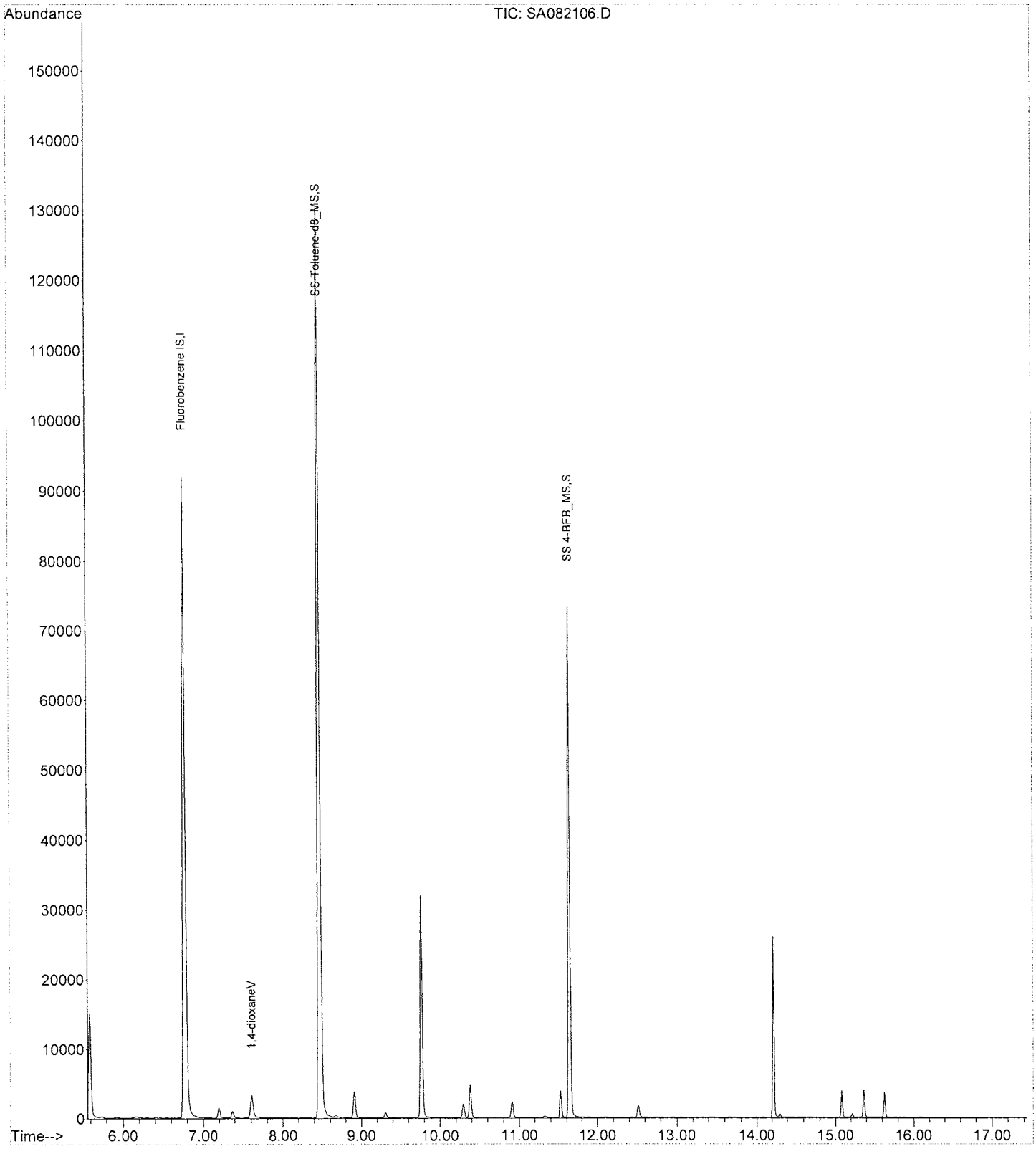
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	174878	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	185519	10.22	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	102.20%		
4) SS 4-BFB_MS			11.64	95	69116	10.63	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	106.29%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	4688m	6.388	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082106.D Vial: 6
Acq On : 21 Aug 2013 3:19 pm Operator: VG
Sample : 123649.06MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082107.D Vial: 7
Acq On : 21 Aug 2013 4:08 pm Operator: VG
Sample : 123649.06MSD Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:21 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

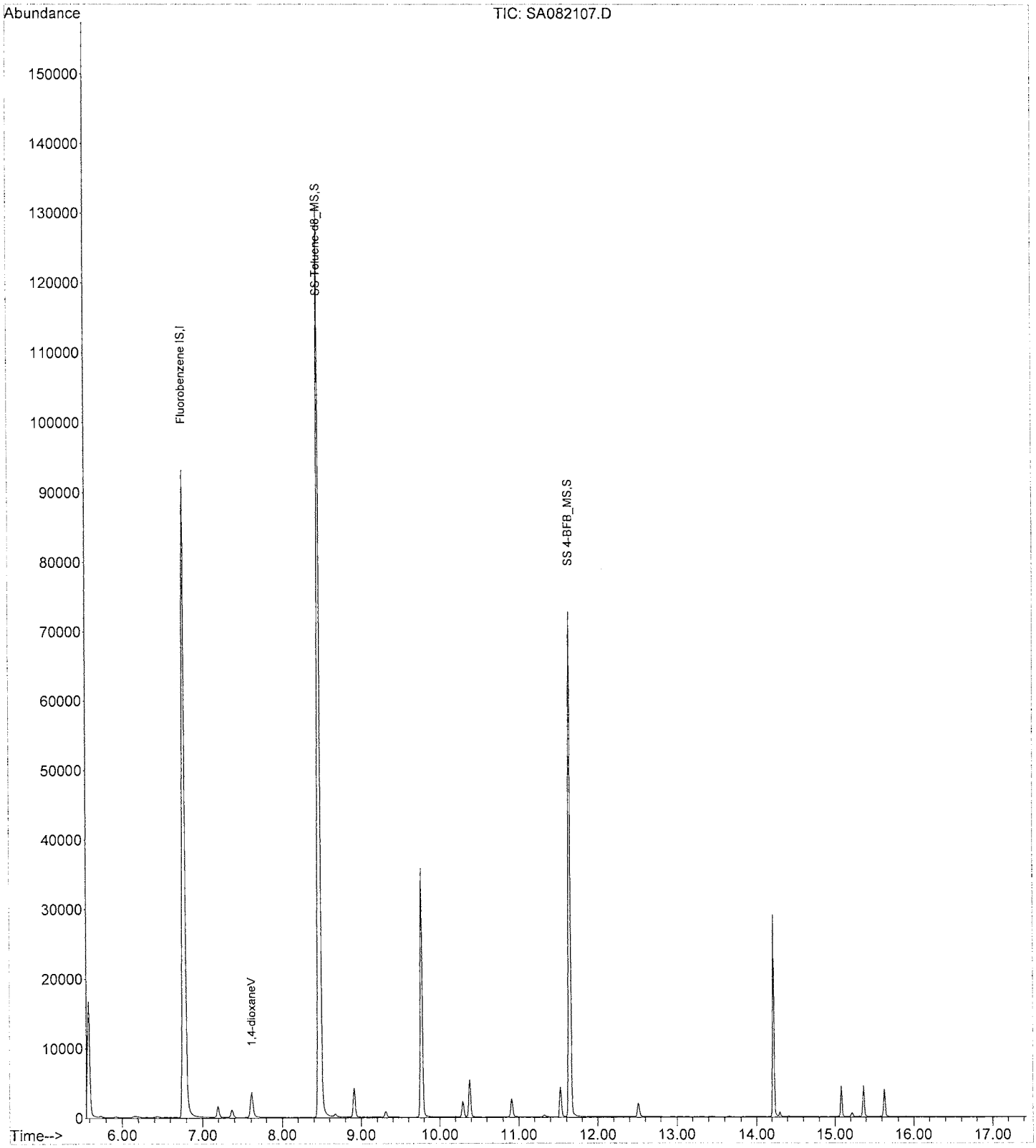
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	175883	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176191	9.65	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.51%			
4) SS 4-BFB_MS	11.64	95	68677	10.50	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.01%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	5052m	6.844	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082107.D Vial: 7
Acq On : 21 Aug 2013 4:08 pm Operator: VG
Sample : 123649.06MSD Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
Professional laboratory & drilling services

123649
Wet Chemistry Support Data

			COD, LOW LEVEL NOTEBOOK						Page	10
HACH Vial Lot #:		A3168	HACH 8000, EPA 410.4, SM 5220D					Dig. Date:	8/23/2013	
Stock Lot#:		CS0115400.7334			Param #1540			Spec. Date:	8/23/2013	
QC Stock Lot#:		QC025400.7335						Analyst:	SCW	
Date of Calib:		07/31/13						Time:	9:20	
Analyst:		SCW								
	LINEAR REGRESSION, CORRELATION COEFFICIENT									
	PPM		0	10	50	100	200			
	Respons		0.735	0.706	0.592	0.434	0.105		← Enter calibration data here	
	Conc.		0	10	50	100	200		if new calib	
	X * Y		0	7.06	29.6	43.4	21			
	X^2		0	100	2500	10000	40000			
	Y^2		0.5402	0.4984	0.3505	0.1884	0.011			
							Slope	-0.00315307		
N	5	Sum (Y)	2.572	Sum(X^	52600		Y int.	0.74142129		
Sum (X)	360	Sum (X * Y)	101.06	Sum(Y^2	1.5885		Cor.	-0.99958546		

		BatSamNum	Vol	Final	Abs	Report		Final Conc	QA/QC		
	x	Sample ID:	Dist(ml)	Vol(ml)	420nm	mg/L	Dil Fac	mg/L COD	Values	% Rec.	% RPD
		Blank	2	2	0.734	**2.354**	1	2.354			
		QC 100 ppm	2	2	0.434	**97.499**	1	97.499	100	97.5	
		Ck Std 50 ppm	2	2	0.586	**49.292**	1	49.292	50	98.6	
		Ck Std 100 ppm	2	2	0.435	**97.182**	1	97.182	100	97.2	
		QC 100 ppm	2	2	0.428	**99.402**	1	99.402	100	99.4	
		123552.01	2	2	0.415	**103.525**	1	103.525			
		123552.02	2	2	0.494	**78.470**	1	78.470			
		123649.01	1.9	2	0.586	**49.292**	**1.05263**	51.886			
		123649.01 MS	1.9	2	0.445	**94.010**	**1.05263**	98.958	50	89.4	
		123649.01 MSD	1.9	2	0.434	**97.499**	**1.05263**	102.630	50	96.4	3.6
		123649.02	2	2	0.526	**68.321**	1	68.321			
		123734.01	0.1	2	0.465	**87.667**	**20**	1753.345			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!	50	0.0	
						235.142	**#DIV/0!**	#DIV/0!	50	0.0	0.0
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
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						235.142	**#DIV/0!**	#DIV/0!			
						235.142	**#DIV/0!**	#DIV/0!			
		sample				**235.142**	**#DIV/0!**	#DIV/0!			
		MS				**235.142**	**#DIV/0!**	#DIV/0!	50	0.0	
		MSD				**235.142**	**#DIV/0!**	#DIV/0!	50	0.0	0.0

Comments:		
	General:	
	Dilution:	
	QC:	80-115%R
	Cal ck:	90-110%R
	Dup/Spk:	MS 80-120%R; RPD </=20
	QC Check:	

123649

			AMMONIA PROBE NOTEBOOK							Page	2	
			EPA Method 350.3/Std Meth 4500NH3D									
Cal Std Lot#:	CS0513800.6981				Param # = 13800				Date:	8/28/2013		
LCS / Spike:	39899								Analyst:	SEL		
Reagent #:	R0113800.7466								Time:	2:00 PM		
		conc										
	CALIBRATION:	mg/L	reading	units	% Rec.		Probe Calibration					
	Cal std =	1	93.5	mV			Temp:	22.2				
	Cal std =	10	35.8	mV			Eff:	-57.7				
	Cal Check	0.05	.0511	mg/L	102.2		Slope:	97.8				
	Cal Check	5	4.56	mg/L	91.2							
	Cal Check	20	18.5	mg/L	92.5							
	Cal Check	50	45	mg/L	90.0							

Sample Type	BatSamNum	Free Cl	Vol(ml) analyzed	Wt (g)		Reading mg/L	Dil Fact /100mL	Final Conc mg/L	% Solid decimal	Conc mg/kg	QA/QC Values	% Rec.	% RPD
Blank		neg	100			0.0212	1	0.02		#DIV/0!			
LCS 2 mg/L		neg	100			1.89	1	1.89		#DIV/0!	2	94.5	
LCS 2 mg/L		neg	100			1.85	1	1.85		#DIV/0!	2	92.5	2.1
	123642.01	neg	100			0.348	1	0.35		#DIV/0!			
	123642.02	neg	100			1.13	1	1.13		#DIV/0!			
	123642.03	neg	100			0.219	1	0.22		#DIV/0!			
	123790.01	neg	100			3.65	1	3.65		#DIV/0!			
	123595.02	neg	100			0.0387	1	0.04		#DIV/0!			
	123729.01	neg	100			0.0321	1	0.03		#DIV/0!			
	123729.03	neg	100			1.93	1	1.93		#DIV/0!			
	123809.01	neg	100			0.749	1	0.75		#DIV/0!			
Sam	123649.01	neg	100			20.6	1	20.60		#DIV/0!			
Dup	123649.01	neg	100			20.7	1	20.70		#DIV/0!			0.5
MS	123649.01	neg	100			22.4	1	22.40		#DIV/0!	2	90.0	
MSD	123649.01	neg	100			22.6	1	22.60		#DIV/0!	2	100.0	10.5
	123649.02	neg	100			18.9	1	18.90		#DIV/0!			
	123811.01	neg	100			0.281	1	0.28		#DIV/0!			
	123812.01	neg	100			19.1	1	19.10		#DIV/0!			
	123816.01	neg	100			8.83	1	8.83		#DIV/0!			
	123820.02	neg	100			0.084	1	0.08		#DIV/0!			
	123760.02	neg	100			0.413	1	0.41		#DIV/0!			
	123849.01	neg	100			0.716	1	0.72		#DIV/0!			
	123674.01	neg	100			40.8	1	40.80		#DIV/0!			
	123676.05	neg	100			39.8	1	39.80		#DIV/0!			
Sam	123680.01	neg	100			0.561	1	0.56		#DIV/0!			
Dup	123680.01	neg	100			0.544	1	0.54		#DIV/0!			3.1
MS	123680.01	neg	100			2	1	2.00		#DIV/0!	2	72.0	
MSD	123680.01	neg	100			2	1	2.00		#DIV/0!	2	72.0	0.0

Comments:	
QC:	123649
Cal ck:	
Dup:	
MS/MSD:	
QC check:	

Eastern Analytical, Inc.
professional laboratory & drilling services

123649
Metals by 200.8
Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15	1:10	Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets po	Sample
63	123649.01 MS	1:1 Sc mets po	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets po	Sample
74	123649.06 MS	1:1 Sc mets po	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets po	Sample
90	123739.13 MS	1:1 Sc mets po	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 Mspre		Sample
104	123529.10 Mspre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

Last ~~good~~ passing QC set.
autosampler malfunctions
Not Reporting any As, Mn

auto sampler malfuction

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 M$post	Sample
120	123529.20 M$post	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 M$post	Sample
135	123739.03 M$post	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 M$post	Sample
150	123739.19 M$post	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74169.7

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168.7

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.19		2001

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		85.830
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 92.208
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 96.089
Sb
Sb
Ba
Ba
Tb
Ho 101.260
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.389
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.603
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 99.877
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 14:32:52	Sample Date/Time:	Wednesday, August 21, 2013 17:20:00
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1	Ag	107	0.11138	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1	Ag	109	0.119796	ug/L		< 1
Al	27	-0.26208	ug/L		< 50	Al	27	-0.096673	ug/L		< 50
As	75	-0.071958	ug/L		< 1	As	75	-0.107506	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1	Ba	137	0.009978	ug/L		< 1
Ba	138	0.000189	ug/L		< 1	Ba	138	0.013973	ug/L		< 1
Be	9	-0.011526	ug/L		< 1	Be	9	-0.013222	ug/L		< 1
Ca	44	1.285014	ug/L		< 50	Ca	44	2.131988	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1	Cd	111	-0.044567	ug/L		< 1
Cd	114	0.007666	ug/L		< 1	Cd	114	-0.038087	ug/L		< 1
Co	59	-0.060007	ug/L		< 1	Co	59	-0.0905	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1	Cr	52	0.017578	ug/L		< 1
Cu	63	0.021397	ug/L		< 1	Cu	63	0.021827	ug/L		< 1
Cu	65	0.029362	ug/L		< 1	Cu	65	0.027876	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50	Fe	54	-4.694121	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50	Fe	56	0.7008	ug/L		< 50
Fe	57	0.03486	ug/L		< 50	Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	98.551		Ge	72		ug/L	92.793	
Hg	200	0.000835	ug/L		< 0.2	Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2	Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	99.821		Ho	165		ug/L	95.506	
In	115		ug/L	97.623		In	115		ug/L	93.097	
K	39	-1.029991	ug/L		< 50	K	39	-2.584433	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50	Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50	Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5	Mn	55	-0.0295	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000	Na	23	-0.140785	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1	Ni	60	0.004618	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1	Ni	62	-0.035148	ug/L		< 1
P	31	-0.685617	ug/L		< 50	P	31	-4.843357	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1	Pb	208	-0.004769	ug/L		< 1
Sb	121	0.072129	ug/L		< 1	Sb	121	-0.001531	ug/L		< 1
Sb	123	0.074335	ug/L		< 1	Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	98.465		Sc	45		ug/L	92.391	
Se	82	0.043643	ug/L		< 1	Se	82	-0.033791	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1	Tl	205	-0.068961	ug/L		< 1
V	51	0.220601	ug/L		< 1	V	51	0.347795	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5	Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 18:51:22	Sample Date/Time:	Wednesday, August 21, 2013 20:22:45
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1	Ag	107	0.409088	ug/L		< 1
Ag	109	0.382578	ug/L		< 1	Ag	109	0.462557	ug/L		< 1
Al	27	-0.04987	ug/L		< 50	Al	27	-0.058166	ug/L		< 50
As	75	-0.029484	ug/L		< 1	As	75	0.021676	ug/L		< 1
Ba	137	0.00932	ug/L		< 1	Ba	137	0.012484	ug/L		< 1
Ba	138	0.013228	ug/L		< 1	Ba	138	0.01333	ug/L		< 1
Be	9	-0.010209	ug/L		< 1	Be	9	-0.001978	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50	Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1	Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1	Cd	114	-0.07032	ug/L		< 1
Co	59	-0.098027	ug/L		< 1	Co	59	-0.099707	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1	Cr	52	-0.090933	ug/L		< 1
Cu	63	0.069722	ug/L		< 1	Cu	63	0.082017	ug/L		< 1
Cu	65	0.073293	ug/L		< 1	Cu	65	0.073695	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50	Fe	54	-6.674499	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50	Fe	56	-55.093425	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50	Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	82.019		Ge	72		ug/L	83.541	
Hg	200	0.002538	ug/L		< 0.2	Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2	Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	95.831		Ho	165		ug/L	97.845	
In	115		ug/L	88.586		In	115		ug/L	89.505	
K	39	-5.938476	ug/L		< 50	K	39	-6.379123	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50	Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50	Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5	Mn	55	-0.022123	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000	Na	23	0.056546	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1	Ni	60	0.008771	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1	Ni	62	-0.024023	ug/L		< 1
P	31	0.144733	ug/L		< 50	P	31	-2.824856	ug/L		< 50
Pb	208	0.003305	ug/L		< 1	Pb	208	0.008953	ug/L		< 1
Sb	121	0.546547	ug/L		< 1	Sb	121	0.723441	ug/L		< 1
Sb	123	0.557478	ug/L		< 1	Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	83.518		Sc	45		ug/L	82.676	
Se	82	-0.069326	ug/L		< 1	Se	82	0.060139	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1	Tl	205	-0.045467	ug/L		< 1
V	51	-0.169861	ug/L		< 1	V	51	-0.214544	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5	Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 21:54:09
Sample Description: Blank

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.153846	ug/L		< 1
Ag	109	0.15035	ug/L		< 1
Al	27	0.013772	ug/L		< 50
As	75	0.37065	ug/L		< 1
Ba	137	0.01947	ug/L		< 1
Ba	138	0.021745	ug/L		< 1
Be	9	0.004878	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1
Co	59	-0.10566	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1
Cu	63	0.163582	ug/L		< 1
Cu	65	0.161789	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50
Fe	57	2.66129	ug/L		< 50
Ge	72		ug/L	85.734	
Hg	200	0.007564	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2
Ho	165		ug/L	96.63	
In	115		ug/L	90.015	
K	39	-3.247278	ug/L		< 50
Mg	24	0.269698	ug/L		< 50
Mg	25	0.317386	ug/L		< 50
Mn	55	0.018114	ug/L		< 5
Na	23	4.750616	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1
P	31	-0.93812	ug/L		< 50
Pb	208	0.033931	ug/L		< 1
Sb	121	0.653921	ug/L		< 1
Sb	123	0.671316	ug/L		< 1
Sc	45		ug/L	85.08	
Se	82	0.575163	ug/L		< 1
Tl	205	0.003967	ug/L		< 1
V	51	-0.280011	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 23:25:34
Sample Description: Blank

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.155097	ug/L		< 1
Ag	109	0.156398	ug/L		< 1
Al	27	0.049873	ug/L		< 50
As	75	0.319848	ug/L		< 1
Ba	137	0.01958	ug/L		< 1
Ba	138	0.021384	ug/L		< 1
Be	9	0.004036	ug/L		< 1
Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.063347	ug/L		< 1
Co	59	-0.109626	ug/L		< 1
Cr	52	-0.075727	ug/L		< 1
Cu	63	0.09756	ug/L		< 1
Cu	65	0.094357	ug/L		< 1
Fe	54	-2.050464	ug/L		< 50
Fe	56	-4.061431	ug/L		< 50
Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	84.343	
Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	95.521	
In	115		ug/L	89.464	
K	39	-3.193172	ug/L		< 50
Mg	24	0.229747	ug/L		< 50
Mg	25	0.143982	ug/L		< 50
Mn	55	-0.007129	ug/L		< 5
Na	23	4.091156	ug/L		< 5000
Ni	60	0.014038	ug/L		< 1
Ni	62	-0.037908	ug/L		< 1
P	31	-3.357474	ug/L		< 50
Pb	208	0.029733	ug/L		< 1
Sb	121	1.653256	ug/L		< 1
Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.39	
Se	82	0.458721	ug/L		< 1
Tl	205	-0.01207	ug/L		< 1
V	51	-0.30454	ug/L		< 1
Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 00:57:05
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.152331	ug/L		< 1
Ag	109	0.15027	ug/L		< 1
Al	27	-0.03779	ug/L		< 50
As	75	0.057719	ug/L		< 1
Ba	137	0.010942	ug/L		< 1
Ba	138	0.015616	ug/L		< 1
Be	9	-0.011321	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1
Co	59	-0.115011	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1
Cu	63	0.036833	ug/L		< 1
Cu	65	0.037452	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50
Fe	57	1.44184	ug/L		< 50
Ge	72		ug/L	82.371	
Hg	200	0.001505	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2
Ho	165		ug/L	98.75	
In	115		ug/L	90.548	
K	39	-3.35505	ug/L		< 50
Mg	24	0.204655	ug/L		< 50
Mg	25	0.12711	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5
Na	23	2.807046	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1
P	31	-0.22554	ug/L		< 50
Pb	208	0.002268	ug/L		< 1
Sb	121	0.174891	ug/L		< 1
Sb	123	0.17576	ug/L		< 1
Sc	45		ug/L	81.683	
Se	82	0.112483	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1
V	51	-0.328191	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 02:28:35
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.288914	ug/L		< 1
Ag	109	1.28419	ug/L		< 1
Al	27	0.044205	ug/L		< 50
As	75	0.225436	ug/L		< 1
Ba	137	0.018145	ug/L		< 1
Ba	138	0.017597	ug/L		< 1
Be	9	-0.003792	ug/L		< 1
Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.062216	ug/L		< 1
Co	59	-0.110973	ug/L		< 1
Cr	52	-0.064696	ug/L		< 1
Cu	63	0.072073	ug/L		< 1
Cu	65	0.06893	ug/L		< 1
Fe	54	-3.680317	ug/L		< 50
Fe	56	-47.09427	ug/L		< 50
Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	80.61	
Hg	200	0.005209	ug/L		< 0.2
Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	97.019	
In	115		ug/L	88.977	
K	39	-3.434466	ug/L		< 50
Mg	24	0.148344	ug/L		< 50
Mg	25	0.037963	ug/L		< 50
Mn	55	0.008374	ug/L		< 5
Na	23	5.300602	ug/L		< 5000
Ni	60	0.012988	ug/L		< 1
Ni	62	-0.005112	ug/L		< 1
P	31	-2.730091	ug/L		< 50
Pb	208	0.018434	ug/L		< 1
Sb	121	1.521021	ug/L		< 1
Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	80.611	
Se	82	0.174458	ug/L		< 1
Tl	205	-0.053724	ug/L		< 1
V	51	-0.309052	ug/L		< 1
Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 04:00:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.109538	ug/L		< 1
Ag	109	0.107885	ug/L		< 1
Al	27	-0.008883	ug/L		< 50
As	75	0.127157	ug/L		< 1
Ba	137	0.016023	ug/L		< 1
Ba	138	0.016167	ug/L		< 1
Be	9	-0.007956	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1
Co	59	-0.114875	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1
Cu	63	0.032424	ug/L		< 1
Cu	65	0.030497	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50
Ge	72		ug/L	80.444	
Hg	200	0.001923	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2
Ho	165		ug/L	95.511	
In	115		ug/L	88.955	
K	39	-3.001431	ug/L		< 50
Mg	24	0.309671	ug/L		< 50
Mg	25	0.298606	ug/L		< 50
Mn	55	0.023224	ug/L		< 5
Na	23	7.000406	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1
P	31	-0.44829	ug/L		< 50
Pb	208	0.001211	ug/L		< 1
Sb	121	0.079278	ug/L		< 1
Sb	123	0.083749	ug/L		< 1
Sc	45		ug/L	81.009	
Se	82	0.129524	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1
V	51	-0.509723	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 05:31:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.005663	ug/L		< 1
Ag	109	0.010628	ug/L		< 1
Al	27	-0.502926	ug/L		< 50
As	75	1.129123	ug/L		< 1
Ba	137	-0.010148	ug/L		< 1
Ba	138	-0.008275	ug/L		< 1
Be	9	-0.015683	ug/L		< 1
Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.039959	ug/L		< 1
Co	59	0.012542	ug/L		< 1
Cr	52	-0.491944	ug/L		< 1
Cu	63	-0.001465	ug/L		< 1
Cu	65	-0.006339	ug/L		< 1
Fe	54	284.471578	ug/L		< 50
Fe	56	-129.55362	ug/L		< 50
Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	129.949	
Hg	200	-0.003001	ug/L		< 0.2
Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	141.908	
In	115		ug/L	125.817	
K	39	-31.826232	ug/L		< 50
Mg	24	-0.136734	ug/L		< 50
Mg	25	-0.19183	ug/L		< 50
Mn	55	0.061396	ug/L		< 5
Na	23	1.090327	ug/L		< 5000
Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.076872	ug/L		< 1
P	31	26.141474	ug/L		< 50
Pb	208	-0.007794	ug/L		< 1
Sb	121	0.002988	ug/L		< 1
Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	141.513	
Se	82	-0.152989	ug/L		< 1
Tl	205	-0.081941	ug/L		< 1
V	51	-2.241279	ug/L		< 1
Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 07:03:30
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1
Al	27	-0.524824	ug/L		< 50
As	75	1.098666	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1
Be	9	-0.016149	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1
Co	59	-0.033016	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1
Fe	54	318.31098	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50
Ge	72		ug/L	135.534	
Hg	200	-0.00305	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2
Ho	165		ug/L	135.791	
In	115		ug/L	133.042	
K	39	-33.575308	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50
Mn	55	0.05205	ug/L		< 5
Na	23	0.12898	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1
P	31	28.414772	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1
Sc	45		ug/L	135.399	
Se	82	-0.162972	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1
V	51	-2.302445	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 08:35:16
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524517	ug/L		< 50
As	75	1.054567	ug/L		< 1
Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.009079	ug/L		< 1
Be	9	-0.014621	ug/L		< 1
Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.090179	ug/L		< 1
Co	59	-0.078269	ug/L		< 1
Cr	52	-0.47418	ug/L		< 1
Cu	63	0.0013	ug/L		< 1
Cu	65	-0.003215	ug/L		< 1
Fe	54	319.135316	ug/L		< 50
Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.134	
Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	140.956	
In	115		ug/L	144.07	
K	39	-32.805094	ug/L		< 50
Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.229129	ug/L		< 50
Mn	55	0.048782	ug/L		< 5
Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.061371	ug/L		< 1
P	31	27.860573	ug/L		< 50
Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	130.84	
Se	82	-0.404338	ug/L		< 1
Tl	205	-0.093371	ug/L		< 1
V	51	-2.29718	ug/L		< 1
Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 09:33:49
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.095298	ug/L		< 1
Ag	109	0.094355	ug/L		< 1
Al	27	0.075903	ug/L		< 50
As	75	-0.03098	ug/L		< 1
Ba	137	0.017392	ug/L		< 1
Ba	138	0.020186	ug/L		< 1
Be	9	-0.010611	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1
Co	59	-0.137349	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1
Cu	63	0.039414	ug/L		< 1
Cu	65	0.031906	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50
Ge	72		ug/L	89.373	
Hg	200	0.000491	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2
Ho	165		ug/L	98.89	
In	115		ug/L	92.57	
K	39	-4.157267	ug/L		< 50
Mg	24	0.574241	ug/L		< 50
Mg	25	0.636205	ug/L		< 50
Mn	55	0.021759	ug/L		< 5
Na	23	2.780659	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1
P	31	-0.173755	ug/L		< 50
Pb	208	0.001538	ug/L		< 1
Sb	121	0.078009	ug/L		< 1
Sb	123	0.087634	ug/L		< 1
Sc	45		ug/L	85.875	
Se	82	0.043633	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1
V	51	-0.596453	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 11:24:19
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.090915	ug/L		< 1
Ag	109	0.09819	ug/L		< 1
Al	27	0.047217	ug/L		< 50
As	75	-0.030436	ug/L		< 1
Ba	137	0.016176	ug/L		< 1
Ba	138	0.020659	ug/L		< 1
Be	9	-0.011288	ug/L		< 1
Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.082977	ug/L		< 1
Co	59	-0.147596	ug/L		< 1
Cr	52	-0.06319	ug/L		< 1
Cu	63	0.038297	ug/L		< 1
Cu	65	0.034062	ug/L		< 1
Fe	54	-1.456751	ug/L		< 50
Fe	56	-0.025537	ug/L		< 50
Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	86.417	
Hg	200	0.00115	ug/L		< 0.2
Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	100.905	
In	115		ug/L	92.826	
K	39	-0.314828	ug/L		< 50
Mg	24	0.573024	ug/L		< 50
Mg	25	0.393241	ug/L		< 50
Mn	55	0.02926	ug/L		< 5
Na	23	4.257669	ug/L		< 5000
Ni	60	0.00676	ug/L		< 1
Ni	62	-0.003664	ug/L		< 1
P	31	0.06278	ug/L		< 50
Pb	208	0.000639	ug/L		< 1
Sb	121	0.071262	ug/L		< 1
Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.343	
Se	82	0.023146	ug/L		< 1
Tl	205	-0.073176	ug/L		< 1
V	51	-0.366388	ug/L		< 1
Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 13:43:03
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1
Ag	109	0.640631	ug/L		< 1
Al	27	0.09732	ug/L		< 50
As	75	0.128392	ug/L		< 1
Ba	137	0.023246	ug/L		< 1
Ba	138	0.021737	ug/L		< 1
Be	9	-0.002378	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1
Co	59	-0.14108	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1
Cu	63	0.072079	ug/L		< 1
Cu	65	0.082805	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50
Fe	57	2.699095	ug/L		< 50
Ge	72		ug/L	79.059	
Hg	200	0.003667	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2
Ho	165		ug/L	92.372	
In	115		ug/L	86.481	
K	39	-0.06939	ug/L		< 50
Mg	24	0.658856	ug/L		< 50
Mg	25	0.529086	ug/L		< 50
Mn	55	0.027991	ug/L		< 5
Na	23	4.666609	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1
P	31	0.073182	ug/L		< 50
Pb	208	0.015682	ug/L		< 1
Sb	121	1.267409	ug/L		< 1
Sb	123	1.287874	ug/L		< 1
Sc	45		ug/L	76.201	
Se	82	0.150628	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1
V	51	-0.220549	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 14:35:14
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.222791	ug/L		< 1
Ag	109	0.224883	ug/L		< 1
Al	27	0.500197	ug/L		< 50
As	75	-0.06713	ug/L		< 1
Ba	137	0.017237	ug/L		< 1
Ba	138	0.021829	ug/L		< 1
Be	9	-0.010387	ug/L		< 1
Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.085964	ug/L		< 1
Co	59	-0.146151	ug/L		< 1
Cr	52	-0.045782	ug/L		< 1
Cu	63	0.041847	ug/L		< 1
Cu	65	0.035843	ug/L		< 1
Fe	54	4.533522	ug/L		< 50
Fe	56	-35.057302	ug/L		< 50
Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.142	
Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	93.451	
In	115		ug/L	87.75	
K	39	0.959589	ug/L		< 50
Mg	24	0.990964	ug/L		< 50
Mg	25	0.888904	ug/L		< 50
Mn	55	0.014971	ug/L		< 5
Na	23	5.109504	ug/L		< 5000
Ni	60	0.00981	ug/L		< 1
Ni	62	-0.00789	ug/L		< 1
P	31	0.284032	ug/L		< 50
Pb	208	0.007423	ug/L		< 1
Sb	121	0.253468	ug/L		< 1
Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.542	
Se	82	0.06488	ug/L		< 1
Tl	205	-0.051882	ug/L		< 1
V	51	-0.227237	ug/L		< 1
Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929	1	
Hg	202	1.040778	ug/L	104.078	1	
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662		1000
Mg	24	103.781446	ug/L	103.368		100
Mg	25	101.910134	ug/L	101.504		100
Mn	55	101.057709	ug/L	100.455		100
Na	23	100.277066	ug/L	98.795		100
Ni	60	102.584982	ug/L	102.176		100
Ni	62	102.933276	ug/L	102.523		100
Pb	208	99.694126	ug/L	98.903		100
Sb	121	100.398697	ug/L	99.999		100
Sb	123	100.622444	ug/L	100.222		100
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043		100
Tl	205	99.216104	ug/L	99.515		100
V	51	101.059419	ug/L	100.059		100
Zn	64	107.272953	ug/L	106.846		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593	1	
Hg	202	1.040768	ug/L	104.077	1	
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252		1000
Mg	24	98.319154	ug/L	97.927		100
Mg	25	96.031291	ug/L	95.649		100
Mn	55	98.959577	ug/L	98.369		100
Na	23	96.168791	ug/L	94.748		100
Ni	60	100.55402	ug/L	100.153		100
Ni	62	102.661248	ug/L	102.252		100
Pb	208	98.323004	ug/L	97.543		100
Sb	121	99.99654	ug/L	99.598		100
Sb	123	99.453167	ug/L	99.057		100
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583		100
Tl	205	97.452476	ug/L	97.746		100
V	51	101.271779	ug/L	100.269		100
Zn	64	109.836832	ug/L	109.399		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4		10000
Mg	24	9880.11872	ug/L	98.801		10000
Mg	25	9759.45121	ug/L	97.595		10000
Na	23	9883.02508	ug/L	98.83		10000
P	31	9713.82327	ug/L	97.138		10000
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896		10000
Mg	24	8956.63881	ug/L	89.566		10000
Mg	25	8963.69564	ug/L	89.637		10000
Na	23	9024.94466	ug/L	90.249		10000
P	31	9411.4984	ug/L	94.115		10000
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 14:52:24
Sample Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 17:33:02
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1	Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.528061	ug/L	107.807		31.1	Ag	109	33.401584	ug/L	107.401		31.1
Al	27	175.79957	ug/L	108.518		162	Al	27	170.207121	ug/L	105.066		162
As	75	44.004738	ug/L	108.654		40.5	As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.819208	ug/L	101.974		26.3	Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.677018	ug/L	108.212		53.3	Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.935119	ug/L	101.525		48.2	Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.027357	ug/L	101.717		48.2	Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.704507	ug/L	108.555		24.6	Co	59	26.02674	ug/L	105.8		24.6
Cr	52	12.125672	ug/L	105.441		11.5	Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.535617	ug/L	105.484		28	Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.324751	ug/L	104.731		28	Cu	65	29.265666	ug/L	104.52		28
Fe	54	49.158941	ug/L	110.718		44.4	Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	48.011563	ug/L	108.134		44.4	Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		96.994		Ge	72		ug/L		90.92	
Hg	200	1.073622	ug/L	107.362		1	Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.06403	ug/L	106.403		1	Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		98.773		Ho	165		ug/L		95.67	
In	115		ug/L		97.432		In	115		ug/L		91.805	
Mn	55	156.696069	ug/L	105.876		148	Mn	55	152.821227	ug/L	103.258		148
Ni	60	37.877474	ug/L	104.924		36.1	Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.770046	ug/L	104.626		36.1	Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.241661	ug/L	102.366		137	Pb	208	140.83278	ug/L	102.798		137
Sb	121	77.130222	ug/L	120.894		63.8	Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	78.14608	ug/L	122.486		63.8	Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		97.791		Sc	45		ug/L		89.874	
Se	82	170.349456	ug/L	105.154		162	Se	82	163.258818	ug/L	100.777		162
Tl	205	29.143939	ug/L	104.834		27.8	Tl	205	28.779001	ug/L	103.522		27.8
V	51	146.163334	ug/L	102.932		142	V	51	145.251347	ug/L	102.29		142
Zn	64	136.871927	ug/L	108.629		126	Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922		1
Hg	202	1.082203	ug/L	108.22		1
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119		1000
Mg	24	99.317125	ug/L	98.921		100
Mg	25	97.694613	ug/L	97.305		100
Mn	55	97.083947	ug/L	96.505		100
Na	23	97.926622	ug/L	96.479		100
Ni	60	99.931756	ug/L	99.534		100
Ni	62	101.122532	ug/L	100.72		100
Pb	208	104.220792	ug/L	103.394		100
Sb	121	103.564096	ug/L	103.151		100
Sb	123	105.370593	ug/L	104.951		100
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647		100
Tl	205	102.083183	ug/L	102.39		100
V	51	99.948537	ug/L	98.959		100
Zn	64	111.868594	ug/L	111.423		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489		1
Hg	202	1.036762	ug/L	103.676		1
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214		1000
Mg	24	97.583939	ug/L	97.195		100
Mg	25	96.371483	ug/L	95.988		100
Mn	55	96.222644	ug/L	95.649		100
Na	23	94.867561	ug/L	93.466		100
Ni	60	99.787099	ug/L	99.39		100
Ni	62	100.716791	ug/L	100.316		100
Pb	208	101.118943	ug/L	100.316		100
Sb	121	101.603508	ug/L	101.199		100
Sb	123	101.96027	ug/L	101.554		100
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683		100
Tl	205	99.868488	ug/L	100.169		100
V	51	99.064993	ug/L	98.084		100
Zn	64	110.300389	ug/L	109.861		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339		10000
Mg	24	9107.17615	ug/L	91.072		10000
Mg	25	9113.08412	ug/L	91.131		10000
Na	23	9142.69945	ug/L	91.427		10000
P	31	9237.4397	ug/L	92.374		10000
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23		10000
Mg	24	9115.36461	ug/L	91.154		10000
Mg	25	9076.8622	ug/L	90.769		10000
Na	23	9186.42576	ug/L	91.864		10000
P	31	9240.66309	ug/L	92.407		10000
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 19:04:23
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1
Ag	109	32.243043	ug/L	103.675		31.1
Al	27	169.877405	ug/L	104.863		162
As	75	43.649422	ug/L	107.776		40.5
Ba	137	26.539059	ug/L	100.909		26.3
Be	9	58.537574	ug/L	109.827		53.3
Cd	111	47.686438	ug/L	98.935		48.2
Cd	114	48.50097	ug/L	100.624		48.2
Co	59	24.967966	ug/L	101.496		24.6
Cr	52	11.295588	ug/L	98.223		11.5
Cu	63	28.509718	ug/L	101.82		28
Cu	65	28.505075	ug/L	101.804		28
Fe	54	36.488238	ug/L	82.181		44.4
Fe	57	37.63998	ug/L	84.775		44.4
Ge	72		ug/L		83.794	
Hg	200	1.079841	ug/L	107.984		1
Hg	202	1.075676	ug/L	107.568		1
Ho	165		ug/L		94.617	
In	115		ug/L		89.825	
Mn	55	146.325811	ug/L	98.869		148
Ni	60	35.354291	ug/L	97.934		36.1
Ni	62	35.812885	ug/L	99.205		36.1
Pb	208	142.748232	ug/L	104.196		137
Sb	121	78.438027	ug/L	122.944		63.8
Sb	123	79.381895	ug/L	124.423		63.8
Sc	45		ug/L		85.798	
Se	82	168.196615	ug/L	103.825		162
Tl	205	29.939774	ug/L	107.697		27.8
V	51	138.465296	ug/L	97.511		142
Zn	64	132.284935	ug/L	104.988		126

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 20:35:46
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.56866	ug/L	104.672		162
As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	47.957987	ug/L	99.498		48.2
Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	29.183414	ug/L	104.226		28
Cu	65	29.283253	ug/L	104.583		28
Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		82.957	
Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		96.96	
In	115		ug/L		90.311	
Mn	55	149.386866	ug/L	100.937		148
Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	139.712907	ug/L	101.98		137
Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		83.441	
Se	82	170.175299	ug/L	105.046		162
Tl	205	28.521962	ug/L	102.597		27.8
V	51	142.922273	ug/L	100.649		142
Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID: QC Std 5
ıple Date/Time: Thursday, August 22, 2013 01:10:06
ıple Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 02:41:37
Sample Description: CV - Trace Metals 2

ıcentration Results ılyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
	107	32.085084	ug/L	103.167		31.1
	109	32.283397	ug/L	103.805		31.1
	27	176.628105	ug/L	109.03		162
	75	43.800976	ug/L	108.151		40.5
	137	26.837539	ug/L	102.044		26.3
	9	61.614851	ug/L	115.6		53.3
	111	47.430034	ug/L	98.403		48.2
	114	48.746097	ug/L	101.133		48.2
	59	26.280712	ug/L	106.832		24.6
	52	12.015753	ug/L	104.485		11.5
	63	29.462402	ug/L	105.223		28
	65	29.259493	ug/L	104.498		28
	54	44.033776	ug/L	99.175		44.4
	57	43.567683	ug/L	98.125		44.4
	72		ug/L		82.707	
	200	1.057705	ug/L	105.77		1
	202	1.069887	ug/L	106.989		1
	165		ug/L		96.744	
	115		ug/L		90.217	
	55	156.302321	ug/L	105.61		148
	60	37.297646	ug/L	103.318		36.1
	62	37.56515	ug/L	104.059		36.1
	208	141.740015	ug/L	103.46		137
	121	78.450993	ug/L	122.964		63.8
	123	78.806471	ug/L	123.521		63.8
	45		ug/L		79.964	
	82	169.290777	ug/L	104.5		162
	205	28.847121	ug/L	103.767		27.8
	51	147.903791	ug/L	104.158		142
	64	138.748402	ug/L	110.118		126

Concentration Results Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Ag	107	32.40122	ug/L	104.184		31.1
Ag	109	32.681402	ug/L	105.085		31.1
Al	27	175.971114	ug/L	108.624		162
As	75	43.433784	ug/L	107.244		40.5
Ba	137	26.985416	ug/L	102.606		26.3
Be	9	61.712462	ug/L	115.783		53.3
Cd	111	47.380861	ug/L	98.301		48.2
Cd	114	48.585557	ug/L	100.8		48.2
Co	59	26.170913	ug/L	106.386		24.6
Cr	52	11.920527	ug/L	103.657		11.5
Cu	63	28.915989	ug/L	103.271		28
Cu	65	29.162714	ug/L	104.153		28
Fe	54	44.487941	ug/L	100.198		44.4
Fe	57	42.710078	ug/L	96.194		44.4
Ge	72		ug/L		81.216	
Hg	200	1.026397	ug/L	102.64		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		96.797	
In	115		ug/L		88.977	
Mn	55	155.899113	ug/L	105.337		148
Ni	60	36.847545	ug/L	102.071		36.1
Ni	62	36.750603	ug/L	101.802		36.1
Pb	208	140.681713	ug/L	102.687		137
Sb	121	78.164808	ug/L	122.515		63.8
Sb	123	79.249706	ug/L	124.216		63.8
Sc	45		ug/L		81.057	
Se	82	169.545511	ug/L	104.658		162
Tl	205	28.82577	ug/L	103.69		27.8
V	51	146.069039	ug/L	102.866		142
Zn	64	136.170963	ug/L	108.072		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905		1
Hg	202	1.034894	ug/L	103.489		1
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ımple ID:	QC Std 5	Sample ID:	QC Std 5
ımple Date/Time:	Thursday, August 22, 2013 04:13:10	Sample Date/Time:	Thursday, August 22, 2013 05:44:51
ımple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ɔncentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
ıalyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
g	107	31.910435	ug/L	102.606		31.1	Ag	107	-0.002583	ug/L	-0.008		31.1
g	109	32.451735	ug/L	104.346		31.1	Ag	109	-0.001163	ug/L	-0.004		31.1
l	27	176.978661	ug/L	109.246		162	Al	27	-0.512186	ug/L	-0.316		162
s	75	43.693437	ug/L	107.885		40.5	As	75	1.099476	ug/L	2.715		40.5
a	137	26.960732	ug/L	102.512		26.3	Ba	137	-0.009982	ug/L	-0.038		26.3
e	9	63.399941	ug/L	118.949		53.3	Be	9	-0.016701	ug/L	-0.031		53.3
d	111	48.186725	ug/L	99.972		48.2	Cd	111	-0.043471	ug/L	-0.09		48.2
d	114	48.776891	ug/L	101.197		48.2	Cd	114	-0.050387	ug/L	-0.105		48.2
o	59	26.421149	ug/L	107.403		24.6	Co	59	0.008112	ug/L	0.033		24.6
r	52	11.97374	ug/L	104.119		11.5	Cr	52	-0.495766	ug/L	-4.311		11.5
u	63	29.055703	ug/L	103.77		28	Cu	63	-0.000159	ug/L	-0.001		28
u	65	29.197034	ug/L	104.275		28	Cu	65	-0.005692	ug/L	-0.02		28
e	54	43.74309	ug/L	98.52		44.4	Fe	54	291.990802	ug/L	657.637		44.4
e	57	41.962856	ug/L	94.511		44.4	Fe	57	-21.372424	ug/L	-48.136		44.4
ɜe	72		ug/L		80.709		Ge	72		ug/L		132.416	
ɨg	200	1.069262	ug/L	106.926		1	Hg	200	-0.003091	ug/L	-0.309		1
ɨg	202	1.056357	ug/L	105.636		1	Hg	202	-0.003251	ug/L	-0.325		1
ɨo	165		ug/L		95.83		Ho	165		ug/L		126.741	
n	115		ug/L		88.442		In	115		ug/L		145.25	
Mn	55	156.943489	ug/L	106.043		148	Mn	55	0.053751	ug/L	0.036		148
Ni	60	37.048042	ug/L	102.626		36.1	Ni	60	-0.011788	ug/L	-0.033		36.1
Ni	62	36.398976	ug/L	100.828		36.1	Ni	62	-0.058488	ug/L	-0.162		36.1
Pb	208	141.718411	ug/L	103.444		137	Pb	208	-0.007995	ug/L	-0.006		137
Sb	121	78.316181	ug/L	122.753		63.8	Sb	121	-0.004589	ug/L	-0.007		63.8
Sb	123	78.931664	ug/L	123.717		63.8	Sb	123	-0.002685	ug/L	-0.004		63.8
Sc	45		ug/L		80.835		Sc	45		ug/L		143.741	
Se	82	171.023934	ug/L	105.57		162	Se	82	-0.047835	ug/L	-0.03		162
Tl	205	28.771042	ug/L	103.493		27.8	Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	146.166037	ug/L	102.934		142	V	51	-2.27818	ug/L	-1.604		142
Zn	64	138.002467	ug/L	109.526		126	Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282		1
Hg	202	-0.003181	ug/L	-0.318		1
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406		1000
Mg	24	-0.174617	ug/L	-0.174		100
Mg	25	-0.247938	ug/L	-0.247		100
Mn	55	0.05222	ug/L	0.052		100
Na	23	0.032718	ug/L	0.032		100
Ni	60	-0.011779	ug/L	-0.012		100
Ni	62	-0.061766	ug/L	-0.062		100
Pb	208	-0.011789	ug/L	-0.012		100
Sb	121	-0.014839	ug/L	-0.015		100
Sb	123	-0.014279	ug/L	-0.014		100
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152		100
Tl	205	-0.096793	ug/L	-0.097		100
V	51	-2.312245	ug/L	-2.289		100
Zn	64	-1.422791	ug/L	-1.417		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295		1
Hg	202	-0.002419	ug/L	-0.242		1
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002		1000
Mg	24	-0.166032	ug/L	-0.165		100
Mg	25	-0.22414	ug/L	-0.223		100
Mn	55	0.061606	ug/L	0.061		100
Na	23	-0.358021	ug/L	-0.353		100
Ni	60	-0.011193	ug/L	-0.011		100
Ni	62	-0.060722	ug/L	-0.06		100
Pb	208	-0.011966	ug/L	-0.012		100
Sb	121	-0.018787	ug/L	-0.019		100
Sb	123	-0.01744	ug/L	-0.017		100
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294		100
Tl	205	-0.09285	ug/L	-0.093		100
V	51	-2.221141	ug/L	-2.199		100
Zn	64	-1.411079	ug/L	-1.405		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344		10000
Mg	24	-0.161123	ug/L	-0.002		10000
Mg	25	-0.20827	ug/L	-0.002		10000
Na	23	-0.132712	ug/L	-0.001		10000
P	31	22.784733	ug/L	0.228		10000
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338		10000
Mg	24	-0.17897	ug/L	-0.002		10000
Mg	25	-0.22029	ug/L	-0.002		10000
Na	23	-0.508698	ug/L	-0.005		10000
P	31	22.801151	ug/L	0.228		10000
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 07:16:32
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 08:48:17
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143		1
Hg	202	1.052693	ug/L	105.269		1
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067		1000
Mg	24	105.163942	ug/L	104.745		100
Mg	25	104.562376	ug/L	104.146		100
Mn	55	103.439706	ug/L	102.823		100
Na	23	107.064006	ug/L	105.482		100
Ni	60	103.416914	ug/L	103.005		100
Ni	62	104.626279	ug/L	104.209		100
Pb	208	102.222971	ug/L	101.412		100
Sb	121	105.67022	ug/L	105.249		100
Sb	123	106.381046	ug/L	105.957		100
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517		100
Tl	205	102.761032	ug/L	103.07		100
V	51	102.90077	ug/L	101.882		100
Zn	64	114.087363	ug/L	113.633		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757		1
Hg	202	1.034154	ug/L	103.415		1
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132		1000
Mg	24	104.129898	ug/L	103.715		100
Mg	25	103.655906	ug/L	103.243		100
Mn	55	104.253269	ug/L	103.631		100
Na	23	106.903493	ug/L	105.324		100
Ni	60	105.713366	ug/L	105.292		100
Ni	62	104.35735	ug/L	103.942		100
Pb	208	103.094453	ug/L	102.276		100
Sb	121	103.629563	ug/L	103.217		100
Sb	123	103.888418	ug/L	103.475		100
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303		100
Tl	205	102.099164	ug/L	102.406		100
V	51	103.657425	ug/L	102.631		100
Zn	64	114.231025	ug/L	113.776		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591		10000
Mg	24	9453.82297	ug/L	94.538		10000
Mg	25	9445.54684	ug/L	94.455		10000
Na	23	9519.12975	ug/L	95.191		10000
P	31	9507.21505	ug/L	95.072		10000
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333		10000
Mg	24	9627.10708	ug/L	96.271		10000
Mg	25	9643.50715	ug/L	96.435		10000
Na	23	9640.23924	ug/L	96.402		10000
P	31	9707.49771	ug/L	97.075		10000
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1
Ag	109	33.688755	ug/L	108.324		31.1
Al	27	179.043586	ug/L	110.521		162
As	75	45.162096	ug/L	111.511		40.5
Ba	137	27.731851	ug/L	105.444		26.3
Be	9	64.398794	ug/L	120.823		53.3
Cd	111	49.461889	ug/L	102.618		48.2
Cd	114	49.490706	ug/L	102.678		48.2
Co	59	27.129774	ug/L	110.284		24.6
Cr	52	12.414864	ug/L	107.955		11.5
Cu	63	29.906814	ug/L	106.81		28
Cu	65	29.383655	ug/L	104.942		28
Fe	54	47.801167	ug/L	107.66		44.4
Fe	57	47.125058	ug/L	106.138		44.4
Ge	72		ug/L		77.442	
Hg	200	1.059861	ug/L	105.986		1
Hg	202	1.062051	ug/L	106.205		1
Ho	165		ug/L		91.204	
In	115		ug/L		85.046	
Mn	55	162.656169	ug/L	109.903		148
Ni	60	38.003502	ug/L	105.273		36.1
Ni	62	37.531851	ug/L	103.966		36.1
Pb	208	144.276791	ug/L	105.312		137
Sb	121	80.552718	ug/L	126.258		63.8
Sb	123	81.755156	ug/L	128.143		63.8
Sc	45		ug/L		76.245	
Se	82	176.391985	ug/L	108.884		162
Tl	205	29.572709	ug/L	106.377		27.8
V	51	149.952502	ug/L	105.6		142
Zn	64	141.444438	ug/L	112.257		126

Silver spike only reported.

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.078838	ug/L	106.363		31.1
Al	27	174.750964	ug/L	107.871		162
As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.205882	ug/L	103.444		26.3
Be	9	62.863805	ug/L	117.943		53.3
Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	48.546222	ug/L	100.718		48.2
Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.413619	ug/L	105.049		28
Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.354	
Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		92.327	
In	115		ug/L		86.826	
Mn	55	158.688787	ug/L	107.222		148
Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.011138	ug/L	105.118		137
Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.361	
Se	82	174.683949	ug/L	107.83		162
Tl	205	29.024052	ug/L	104.403		27.8
V	51	148.64255	ug/L	104.678		142
Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72276.5, 43816.1			25mL
123529.1 MSD			73087.1, 72276.5, 43816.1			25 mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			25 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			73966.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.02	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	739616.6, 73992.1, 74240.1	83.5	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
1231672.01						
1231629.01						
02						
1231641.01						
02						
1231642.04						
05						1:10 dilution
1231647.01						1:10 dilution
02						
03						
1231648.01						
1231649.01						
649.01 MS			73087.1, 72276.5, 43816.1			
649.01 MSD			73087.1, 72276.5, 43816.1			
1231649.02						
1231649.03						
1231649.04						
649.04 MS			73087.1, 72276.5, 43816.1			
649.04 MSD			73087.1, 72276.5, 43816.1			
1231650.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73966.16, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72276.5, 43816.1			25 mL
711.02 MSD			73087.1, 72276.5, 43816.1			25 mL
123741.01	↓	↓	↓	↓	↓	

Sample ID: 123649.01
Sample Date/Time: Wednesday, August 21, 2013 21:34:30
Autosampler Position: 59
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01.77663

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23654.759	ug/L	
Be	9	0.058274	45.667	ug/L	0.004
B	10	343.875327	43990.308	ug/L	1.176
B	11	346.286442	225623.507	ug/L	2.636
C	12		930584.088	ug/L	
Na	23	66255.623273	461835450.920	ug/L	1452.010
Mg	24	16063.661890	77394911.892	ug/L	552.387
Mg	25	16127.631622	11033169.055	ug/L	436.559
Al	27	22.167820	171071.562	ug/L	0.478
Si	28		31229585.434	ug/L	
P	31	267.222224	130506.379	ug/L	8.800
S	32		80157814.120	ug/L	
Cl	35		10836295.279	ug/L	
K	39	25400.189403	286881641.142	ug/L	617.780
Ca	44	49614.091486	18232142.105	ug/L	1270.340
Sc	45		213843.998	ug/L	
Ti	47	4.256136	4265.043	ug/L	0.172
Ti	48	59.640565	618659.851	ug/L	1.072
V	51	0.042331	41058.252	ug/L	0.076
ClO	51		41412.189	ug/L	
Cr	52	0.309571	14192.374	ug/L	0.046
Cr	53	-1.966667	10774.489	ug/L	0.193
Fe	54	34696.919484	31699729.057	ug/L	1127.180
Mn	55	2471.096847	46231710.206	ug/L	59.650
Fe	56	35309.403115	539447243.987	ug/L	763.601
Fe	57	35095.954109	12809189.488	ug/L	912.322
Co	59	0.717701	12161.251	ug/L	0.037
Ni	60	6.214426	17400.815	ug/L	0.298
Ni	62	5.024979	2144.941	ug/L	0.085
Cu	63	0.853027	5533.739	ug/L	0.027
Zn	64	2.552054	10969.683	ug/L	0.112
Cu	65	0.241437	882.052	ug/L	0.001
Zn	66	2.424983	6343.609	ug/L	0.072
Zn	68	4.568310	7495.163	ug/L	0.114
Ge	72		170357.789	ug/L	
As	75	5.293111	8941.841	ug/L	0.086
Se	82	4.637323	864.219	ug/L	0.183
ArCl	77		894.720	ug/L	
Br	79		371229.738	ug/L	

Br	81		402755.713	ug/L	
Y	89		416247.513	ug/L	
Mo	95	0.317943	1363.116	ug/L	0.009
Rh	103		381776.012	ug/L	
Ag	107	0.036960	797.043	ug/L	0.002
Ag	109	0.042847	807.044	ug/L	0.007
Cd	111	-0.075800	89.001	ug/L	0.004
Cd	114	-0.069163	267.673	ug/L	0.002
In	115		544483.013	ug/L	
Sb	121	0.183062	1792.861	ug/L	0.004
Sb	123	0.181475	1362.686	ug/L	0.004
Ba	137	92.476157	487805.970	ug/L	4.716
Ba	138	89.463900	3065630.304	ug/L	4.677
Tb	159		747524.338	ug/L	
Ho	165		747297.956	ug/L	
Hg	200	0.006829	39.334	ug/L	0.001
Hg	202	0.001994	34.000	ug/L	0.000
Tl	205	-0.079000	1910.887	ug/L	0.004
Pb	208	0.048210	3795.014	ug/L	0.001
Bi	209		661366.965	ug/L	
Se	77	0.675500	913.722	ug/L	0.222
Se	78	-5.350156	9041.652	ug/L	0.288

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		103.813
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	86.316
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.126
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	90.524
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.01 MS
Sample Date/Time: Wednesday, August 21, 2013 21:41:03
Autosampler Position: 60
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MS.77664

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22228.477	ug/L	
Be	9	772.791852	397283.530	ug/L	21.223
B	10	332.736449	41464.431	ug/L	4.862
B	11	336.751076	213741.005	ug/L	5.523
C	12		1817450.067	ug/L	
Na	23	72987.099227	495688183.248	ug/L	1094.759
Mg	24	23823.435328	111856755.387	ug/L	247.904
Mg	25	23820.649321	15880021.974	ug/L	160.078
Al	27	8369.356414	61320969.049	ug/L	116.988
Si	28		29698824.633	ug/L	
P	31	7461.513293	3230409.998	ug/L	116.971
S	32		78676757.345	ug/L	
Cl	35		12301059.636	ug/L	
K	39	33518.205943	368622490.297	ug/L	695.760
Ca	44	59422.497033	21272771.986	ug/L	1238.259
Sc	45		208330.022	ug/L	
Ti	47	28.140918	26259.137	ug/L	1.126
Ti	48	74.612568	754115.152	ug/L	1.696
V	51	811.309794	11411784.781	ug/L	14.246
ClO	51		11596274.500	ug/L	
Cr	52	779.358297	9233767.146	ug/L	17.439
Cr	53	763.597953	1109053.593	ug/L	17.047
Fe	54	43740.424978	38923019.863	ug/L	689.093
Mn	55	3292.982847	60024782.961	ug/L	60.134
Fe	56	44347.006318	659292831.174	ug/L	740.543
Fe	57	44564.066448	15844129.788	ug/L	860.203
Co	59	753.429430	9827065.998	ug/L	11.857
Ni	60	743.507685	2021441.028	ug/L	14.534
Ni	62	742.258322	299462.340	ug/L	14.556
Cu	63	687.089249	4133355.789	ug/L	14.557
Zn	64	757.509449	2009176.435	ug/L	13.502
Cu	65	669.378513	2014983.402	ug/L	10.069
Zn	66	772.270811	1225166.869	ug/L	19.102
Zn	68	792.617022	942696.951	ug/L	18.320
Ge	72		173065.796	ug/L	
As	75	923.934111	1609486.120	ug/L	20.954
Se	82	900.283671	166704.664	ug/L	15.955
ArCl	77		126705.952	ug/L	
Br	79		367609.564	ug/L	

Br	81		399021.892	ug/L	
Y	89		408079.020	ug/L	
Mo	95	1014.904981	4120563.572	ug/L	16.331
Rh	103		376192.912	ug/L	
Ag	107	53.601371	667763.415	ug/L	0.138
Ag	109	54.400700	652681.838	ug/L	0.890
Cd	111	938.818984	2928533.648	ug/L	22.069
Cd	114	942.296020	6814825.033	ug/L	21.570
In	115		545650.621	ug/L	
Sb	121	1170.804284	9827157.098	ug/L	20.859
Sb	123	1173.187766	7585707.947	ug/L	15.935
Ba	137	1053.972147	5575936.092	ug/L	32.686
Ba	138	1045.918884	35951647.018	ug/L	21.885
Tb	159		744990.581	ug/L	
Ho	165		738172.288	ug/L	
Hg	200	1.003092	2926.834	ug/L	0.026
Hg	202	1.045924	4039.605	ug/L	0.003
Tl	205	962.919949	38867367.504	ug/L	20.447
Pb	208	954.961963	53782854.099	ug/L	21.053
Bi	209		647052.573	ug/L	
Se	77	822.982045	125094.472	ug/L	12.959
Se	78	819.391873	408593.497	ug/L	9.063

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.136
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	87.688
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.304
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	89.419
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.01 MSD
Sample Date/Time: Wednesday, August 21, 2013 21:47:36
Autosampler Position: 61
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MSD.77665

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22399.563	ug/L	
Be	9	750.677268	393002.597	ug/L	13.577
B	10	327.884712	41608.422	ug/L	2.983
B	11	336.647368	217596.745	ug/L	1.965
C	12		1746962.742	ug/L	
Na	23	72625.906220	502197142.414	ug/L	1641.097
Mg	24	23707.049952	113331949.314	ug/L	420.207
Mg	25	23808.317606	16158461.572	ug/L	558.058
Al	27	8399.297127	62650870.597	ug/L	284.347
Si	28		30137659.939	ug/L	
P	31	7511.785952	3311291.341	ug/L	151.086
S	32		79235188.588	ug/L	
Cl	35		12525736.722	ug/L	
K	39	33528.070965	375441222.040	ug/L	895.667
Ca	44	58815.589097	21440050.887	ug/L	1227.519
Sc	45		212124.059	ug/L	
Ti	47	28.146654	26747.560	ug/L	0.856
Ti	48	72.373011	744939.047	ug/L	0.472
V	51	805.765192	11540989.188	ug/L	13.625
ClO	51		11649541.551	ug/L	
Cr	52	762.043212	9194436.052	ug/L	10.972
Cr	53	748.536730	1107429.476	ug/L	7.509
Fe	54	43547.484647	39463606.930	ug/L	129.241
Mn	55	3267.993567	60663167.996	ug/L	23.052
Fe	56	44276.046173	670353892.537	ug/L	63.922
Fe	57	44408.956784	16078986.631	ug/L	360.999
Co	59	745.118588	9897030.699	ug/L	3.955
Ni	60	728.289117	2016332.318	ug/L	9.783
Ni	62	725.291338	297964.940	ug/L	13.057
Cu	63	664.940201	4073337.895	ug/L	11.067
Zn	64	732.597514	1978586.088	ug/L	17.284
Cu	65	651.309510	1996303.202	ug/L	11.912
Zn	66	747.415173	1207547.756	ug/L	13.565
Zn	68	772.509955	935649.221	ug/L	14.586
Ge	72		173406.453	ug/L	
As	75	917.623451	1601880.987	ug/L	18.260
Se	82	902.632649	167487.976	ug/L	14.287
ArCl	77		126838.652	ug/L	
Br	79		362503.191	ug/L	

Br	81		393988.474	ug/L	
Y	89		411724.934	ug/L	
Mo	95	1028.197881	4183307.028	ug/L	11.418
Rh	103		378240.636	ug/L	
Ag	107	53.524017	661040.655	ug/L	2.023
Ag	109	53.438741	635527.782	ug/L	1.916
Cd	111	948.565915	2934341.180	ug/L	35.138
Cd	114	944.957211	6777052.489	ug/L	36.111
In	115		541377.095	ug/L	
Sb	121	1184.055542	9855198.456	ug/L	43.288
Sb	123	1194.170027	7656518.039	ug/L	42.457
Ba	137	1064.709813	5586334.505	ug/L	40.311
Ba	138	1059.831635	36127083.510	ug/L	37.658
Tb	159		741490.400	ug/L	
Ho	165		732161.976	ug/L	
Hg	200	1.027254	2973.183	ug/L	0.010
Hg	202	1.030762	3948.230	ug/L	0.012
Tl	205	974.184306	38993225.663	ug/L	38.346
Pb	208	961.270742	53690187.816	ug/L	32.391
Bi	209		644232.475	ug/L	
Se	77	821.766275	124910.873	ug/L	2.551
Se	78	823.724426	410692.432	ug/L	3.528

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		102.978
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	87.860
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	82.652
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	88.691
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.01 MS
Sample Date/Time: Wednesday, August 21, 2013 22:20:12
Autosampler Position: 62
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MS.77670

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22015.969	ug/L	
Be	9	772.239756	391387.653	ug/L	38.234
B	10	314.477832	38647.700	ug/L	9.715
B	11	317.862111	198928.232	ug/L	12.932
C	12		1380709.794	ug/L	
Na	23	70509.423807	471925873.793	ug/L	4176.237
Mg	24	23180.635479	107281074.384	ug/L	1119.450
Mg	25	23214.249066	15251875.501	ug/L	1247.840
Al	27	8370.478761	60460744.824	ug/L	360.243
Si	28		28162901.065	ug/L	
P	31	7575.890854	3233124.137	ug/L	354.425
S	32		78498706.804	ug/L	
Cl	35		11859433.486	ug/L	
K	39	32400.119030	351294923.683	ug/L	1552.078
Ca	44	56937.308762	20096293.142	ug/L	2492.757
Sc	45		205531.380	ug/L	
Ti	47	27.521719	25326.818	ug/L	1.368
Ti	48	69.461283	692289.324	ug/L	2.296
V	51	804.758308	11160547.737	ug/L	33.290
ClO	51		11323725.539	ug/L	
Cr	52	769.596992	8991470.199	ug/L	27.244
Cr	53	752.229378	1077425.634	ug/L	30.902
Fe	54	42305.385449	37123293.193	ug/L	1420.954
Mn	55	3149.234921	56600920.797	ug/L	118.802
Fe	56	42709.565097	626292582.536	ug/L	1196.057
Fe	57	42366.532367	14852982.661	ug/L	1554.773
Co	59	743.525147	9562827.899	ug/L	24.454
Ni	60	733.572307	1966648.924	ug/L	25.692
Ni	62	735.701927	292600.903	ug/L	35.664
Cu	63	678.535317	4023913.670	ug/L	33.466
Zn	64	759.676903	1986064.448	ug/L	40.196
Cu	65	669.179921	1985782.861	ug/L	30.459
Zn	66	766.834065	1199221.275	ug/L	41.084
Zn	68	785.738865	921425.823	ug/L	32.793
Ge	72		169690.291	ug/L	
As	75	912.238929	1557674.572	ug/L	27.791
Se	82	908.937174	164919.161	ug/L	40.550
ArCl	77		123703.856	ug/L	
Br	79		339768.284	ug/L	

Br	81		371302.088	ug/L	
Y	89		408075.138	ug/L	
Mo	95	1026.219924	4084811.783	ug/L	17.170
Rh	103		374838.705	ug/L	
Ag	107	774.877240	9607853.597	ug/L	33.557
Ag	109	769.860417	9191215.784	ug/L	36.846
Cd	111	939.811374	2920660.148	ug/L	29.616
Cd	114	941.384061	6782483.008	ug/L	31.567
In	115		543735.074	ug/L	
Sb	121	1132.533292	9473716.057	ug/L	6.450
Sb	123	1136.631521	7324798.976	ug/L	0.545
Ba	137	1042.134663	5493002.554	ug/L	34.897
Ba	138	1037.281295	35524869.790	ug/L	24.411
Tb	159		756276.807	ug/L	
Ho	165		741271.125	ug/L	
Hg	200	0.994898	2914.163	ug/L	0.029
Hg	202	0.994155	3850.854	ug/L	0.061
Tl	205	957.177203	38745017.587	ug/L	61.336
Pb	208	944.875358	53367713.700	ug/L	59.458
Bi	209		671376.732	ug/L	
Se	77	806.759715	122644.655	ug/L	5.508
Se	78	804.720857	401486.025	ug/L	2.039

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		99.778
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	85.977
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.012
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	89.794
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.01 MSD
Sample Date/Time: Wednesday, August 21, 2013 22:26:44
Autosampler Position: 63
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MSD.77671

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22134.936	ug/L	
Be	9	774.050359	391152.315	ug/L	17.235
B	10	324.585034	39758.820	ug/L	4.790
B	11	327.931103	204619.597	ug/L	2.084
C	12		1395446.201	ug/L	
Na	23	72160.447896	481559835.606	ug/L	2737.465
Mg	24	23405.650327	107989355.093	ug/L	727.076
Mg	25	23393.611681	15324913.161	ug/L	641.791
Al	27	8563.926812	61665569.258	ug/L	214.822
Si	28		28519132.077	ug/L	
P	31	7675.391520	3265401.513	ug/L	210.267
S	32		79534637.226	ug/L	
Cl	35		12031837.874	ug/L	
K	39	33193.052762	358790897.882	ug/L	851.238
Ca	44	58237.961263	20489665.899	ug/L	1870.716
Sc	45		204771.925	ug/L	
Ti	47	27.827157	25531.056	ug/L	0.546
Ti	48	69.680947	692670.551	ug/L	2.201
V	51	824.897302	11406770.641	ug/L	1.763
ClO	51		11617266.880	ug/L	
Cr	52	791.931500	9224572.219	ug/L	1.400
Cr	53	772.073469	1102289.944	ug/L	3.697
Fe	54	43189.823214	37784778.523	ug/L	20.119
Mn	55	3247.482179	58185876.745	ug/L	49.510
Fe	56	43462.671327	635187818.830	ug/L	599.765
Fe	57	43865.146940	15330069.942	ug/L	658.154
Co	59	761.435057	9761757.269	ug/L	11.815
Ni	60	749.122944	2001808.189	ug/L	17.215
Ni	62	742.107315	294254.271	ug/L	20.481
Cu	63	684.270332	4046074.124	ug/L	13.968
Zn	64	765.804224	1996386.787	ug/L	14.639
Cu	65	675.290235	1997886.636	ug/L	14.241
Zn	66	774.116381	1207228.788	ug/L	12.262
Zn	68	795.103165	929489.230	ug/L	17.896
Ge	72		169092.967	ug/L	
As	75	921.685802	1569025.341	ug/L	13.811
Se	82	914.245158	165428.556	ug/L	11.164
ArCl	77		124832.820	ug/L	
Br	79		347084.772	ug/L	

Br	81		378807.087	ug/L	
Y	89		400765.282	ug/L	
Mo	95	1032.589092	4097155.108	ug/L	2.906
Rh	103		368574.348	ug/L	
Ag	107	763.801702	9472284.050	ug/L	26.044
Ag	109	774.691355	9249743.330	ug/L	36.746
Cd	111	945.331767	2938557.196	ug/L	12.588
Cd	114	948.660174	6836173.421	ug/L	20.173
In	115		543683.529	ug/L	
Sb	121	1147.481853	9598646.452	ug/L	0.902
Sb	123	1149.356761	7406299.300	ug/L	3.186
Ba	137	1044.097881	5504772.518	ug/L	16.138
Ba	138	1042.803976	35715797.223	ug/L	19.921
Tb	159		735741.311	ug/L	
Ho	165		720405.455	ug/L	
Hg	200	1.059421	3015.864	ug/L	0.031
Hg	202	1.035807	3903.877	ug/L	0.010
Tl	205	977.640244	38515214.074	ug/L	18.168
Pb	208	962.101049	52883301.460	ug/L	22.567
Bi	209		641259.240	ug/L	
Se	77	810.650201	123232.177	ug/L	2.297
Se	78	805.825424	402021.140	ug/L	1.998

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		99.409
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 85.675
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 83.004
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 87.266
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.02
Sample Date/Time: Wednesday, August 21, 2013 22:59:24
Autosampler Position: 68
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.02.77676

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23208.311	ug/L	
Be	9	0.151148	93.668	ug/L	0.005
B	10	334.706990	42380.666	ug/L	3.702
B	11	341.893698	220513.728	ug/L	2.025
C	12		1140600.461	ug/L	
Na	23	64858.074060	447584209.915	ug/L	587.103
Mg	24	16068.996425	76651451.678	ug/L	267.915
Mg	25	16040.342166	10861404.368	ug/L	458.720
Al	27	77.090839	578090.339	ug/L	1.918
Si	28		31232166.818	ug/L	
P	31	619.350276	283483.403	ug/L	16.767
S	32		76221818.064	ug/L	
Cl	35		10766786.483	ug/L	
K	39	26707.657580	298579991.611	ug/L	440.458
Ca	44	50488.018191	18367879.295	ug/L	631.046
Sc	45		211681.280	ug/L	
Ti	47	8.524381	8234.143	ug/L	0.362
Ti	48	61.804673	634211.663	ug/L	3.624
V	51	0.620154	48877.213	ug/L	0.051
ClO	51		49625.922	ug/L	
Cr	52	0.543392	16859.256	ug/L	0.049
Cr	53	-1.951706	10686.384	ug/L	0.201
Fe	54	44589.253678	40306084.051	ug/L	1196.469
Mn	55	2520.546423	46679632.539	ug/L	51.009
Fe	56	45813.582390	691858608.116	ug/L	960.045
Fe	57	45602.902321	16471094.538	ug/L	1197.610
Co	59	0.897862	14425.914	ug/L	0.030
Ni	60	6.386113	17707.075	ug/L	0.062
Ni	62	5.060234	2137.939	ug/L	0.032
Cu	63	1.275044	8058.652	ug/L	0.014
Zn	64	9.754365	30228.958	ug/L	0.241
Cu	65	0.654520	2136.939	ug/L	0.003
Zn	66	9.654164	17906.797	ug/L	0.340
Zn	68	12.262690	16693.480	ug/L	0.541
Ge	72		171730.245	ug/L	
As	75	6.938946	11857.325	ug/L	0.164
Se	82	4.829517	906.392	ug/L	0.099
ArCl	77		925.056	ug/L	
Br	79		373099.478	ug/L	

Br	81		403441.592	ug/L	
Y	89		416775.738	ug/L	
Mo	95	0.409479	1742.851	ug/L	0.005
Rh	103		381524.763	ug/L	
Ag	107	0.135409	2019.245	ug/L	0.011
Ag	109	0.134242	1900.551	ug/L	0.014
Cd	111	-0.036021	213.338	ug/L	0.001
Cd	114	-0.027429	569.357	ug/L	0.002
In	115		544749.347	ug/L	
Sb	121	0.467767	4179.002	ug/L	0.012
Sb	123	0.471592	3235.427	ug/L	0.014
Ba	137	113.595255	599982.175	ug/L	3.051
Ba	138	111.023182	3809828.894	ug/L	2.364
Tb	159		757555.265	ug/L	
Ho	165		744736.093	ug/L	
Hg	200	0.006729	39.000	ug/L	0.001
Hg	202	0.006241	50.334	ug/L	0.000
Tl	205	-0.072687	2158.278	ug/L	0.006
Pb	208	0.150733	9604.405	ug/L	0.005
Bi	209		684545.229	ug/L	
Se	77	0.558501	896.053	ug/L	0.350
Se	78	-5.254436	9088.024	ug/L	0.061

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		102.763
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe
	Co
	Ni
	Ni
	Cu
	Zn
	Cu
	Zn
	Zn
>	Ge 87.011
	As
	Se
	ArCl
	Br
	Br
	Y
	Mo
	Rh
	Ag
	Ag
	Cd
	Cd
>	In 83.167
	Sb
	Sb
	Ba
	Ba
	Tb
>	Ho 90.214
	Hg
	Hg
	Tl
	Pb
	Bi
	Se
	Se

Sample ID: 123649.03
Sample Date/Time: Wednesday, August 21, 2013 23:05:56
Autosampler Position: 69
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.03.77677

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23844.565	ug/L	
Be	9	0.005085	16.334	ug/L	0.008
B	10	19.708447	2406.343	ug/L	1.297
B	11	20.446307	12704.670	ug/L	1.306
C	12		572709.681	ug/L	
Na	23	14413.779576	93734717.747	ug/L	504.842
Mg	24	3952.757789	17771183.673	ug/L	113.268
Mg	25	3981.749178	2541514.682	ug/L	129.101
Al	27	216.977130	1525972.919	ug/L	8.794
Si	28		22672538.985	ug/L	
P	31	9.417113	15274.361	ug/L	2.801
S	32		78350331.353	ug/L	
Cl	35		10318604.539	ug/L	
K	39	2123.593721	22954973.886	ug/L	53.322
Ca	44	27092.294978	9294155.909	ug/L	754.027
Sc	45		199534.923	ug/L	
Ti	47	13.600795	12264.390	ug/L	0.306
Ti	48	48.357531	468200.719	ug/L	0.964
V	51	-0.034576	37277.311	ug/L	0.071
ClO	51		38287.171	ug/L	
Cr	52	0.461541	14967.126	ug/L	0.032
Cr	53	-1.555150	10622.645	ug/L	0.001
Fe	54	594.747453	569986.649	ug/L	19.267
Mn	55	212.317551	3707118.605	ug/L	6.752
Fe	56	541.986459	10704684.321	ug/L	29.431
Fe	57	631.970447	225392.172	ug/L	22.676
Co	59	0.227152	5219.885	ug/L	0.031
Ni	60	1.773830	4678.917	ug/L	0.047
Ni	62	1.132775	498.019	ug/L	0.040
Cu	63	0.744004	4535.510	ug/L	0.020
Zn	64	3.722596	13205.066	ug/L	0.071
Cu	65	0.657237	2020.578	ug/L	0.034
Zn	66	3.545307	7618.267	ug/L	0.082
Zn	68	3.767484	6084.430	ug/L	0.011
Ge	72		164764.666	ug/L	
As	75	1.932636	3072.197	ug/L	0.076
Se	82	0.960603	187.006	ug/L	0.068
ArCl	77		736.371	ug/L	
Br	79		70316.762	ug/L	

Br	81		92296.909	ug/L	
Y	89		427338.991	ug/L	
Mo	95	0.735072	2929.501	ug/L	0.016
Rh	103		401543.172	ug/L	
Ag	107	0.091618	1569.485	ug/L	0.002
Ag	109	0.099559	1581.153	ug/L	0.002
Cd	111	-0.067314	123.002	ug/L	0.000
Cd	114	-0.063854	325.676	ug/L	0.001
In	115		578662.832	ug/L	
Sb	121	0.255599	2552.050	ug/L	0.002
Sb	123	0.258959	1980.351	ug/L	0.002
Ba	137	7.158365	40262.364	ug/L	0.027
Ba	138	7.140882	260816.849	ug/L	0.060
Tb	159		799856.903	ug/L	
Ho	165		786310.390	ug/L	
Hg	200	0.002170	27.000	ug/L	0.002
Hg	202	0.003278	41.001	ug/L	0.001
Tl	205	-0.065658	2584.727	ug/L	0.004
Pb	208	0.188941	12438.776	ug/L	0.000
Bi	209		697518.534	ug/L	
Se	77	-0.481233	739.038	ug/L	0.484
Se	78	-5.198602	9115.073	ug/L	0.492

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		96.867
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 83.482
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.344
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.250
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06
Sample Date/Time: Wednesday, August 21, 2013 23:12:28
Autosampler Position: 70
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06.77678

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23502.387	ug/L	
Be	9	-0.007540	11.333	ug/L	0.002
B	10	182.777327	24386.253	ug/L	0.744
B	11	186.384659	126664.650	ug/L	0.072
C	12		750293.934	ug/L	
Na	23	54969.258330	399083027.677	ug/L	1346.286
Mg	24	15647.382633	78544109.069	ug/L	250.051
Mg	25	15645.200106	11148771.209	ug/L	358.696
Al	27	11.652904	95761.570	ug/L	0.823
Si	28		37399093.550	ug/L	
P	31	193.241900	101820.492	ug/L	6.478
S	32		80106557.146	ug/L	
Cl	35		11205590.602	ug/L	
K	39	16123.815984	189975191.677	ug/L	189.378
Ca	44	35107.180328	13442250.294	ug/L	733.916
Sc	45		222750.577	ug/L	
Ti	47	3.169397	3367.657	ug/L	0.088
Ti	48	46.298231	500179.085	ug/L	0.394
V	51	-0.516358	34403.000	ug/L	0.020
ClO	51		35045.798	ug/L	
Cr	52	2.518222	42735.269	ug/L	0.058
Cr	53	-0.329746	13738.180	ug/L	0.043
Fe	54	18508.829303	17656514.795	ug/L	102.603
Mn	55	841.873812	16409357.711	ug/L	10.906
Fe	56	18472.341198	295577954.585	ug/L	341.665
Fe	57	18682.798524	7108929.946	ug/L	275.001
Co	59	2.880099	42812.000	ug/L	0.078
Ni	60	7.292836	21265.724	ug/L	0.142
Ni	62	6.352150	2806.795	ug/L	0.070
Cu	63	0.735221	5007.763	ug/L	0.008
Zn	64	0.395564	5323.800	ug/L	0.041
Cu	65	0.228310	875.718	ug/L	0.017
Zn	66	0.170285	2791.123	ug/L	0.004
Zn	68	1.752477	4234.362	ug/L	0.008
Ge	72		167483.290	ug/L	
As	75	139.598162	235118.623	ug/L	5.175
Se	82	2.830526	526.230	ug/L	0.215
ArCl	77		920.056	ug/L	
Br	79		223841.346	ug/L	

Br	81		251124.850	ug/L	
Y	89		415521.238	ug/L	
Mo	95	3.425544	13551.903	ug/L	0.005
Rh	103		383857.926	ug/L	
Ag	107	0.056927	1064.073	ug/L	0.000
Ag	109	0.059785	1030.069	ug/L	0.003
Cd	111	-0.069015	112.335	ug/L	0.002
Cd	114	-0.068893	275.340	ug/L	0.006
In	115		554117.661	ug/L	
Sb	121	0.327644	3058.545	ug/L	0.005
Sb	123	0.333735	2387.326	ug/L	0.000
Ba	137	63.699249	342311.456	ug/L	1.881
Ba	138	62.755681	2191040.328	ug/L	1.260
Tb	159		753851.047	ug/L	
Ho	165		748853.078	ug/L	
Hg	200	0.009421	47.001	ug/L	0.002
Hg	202	0.006941	53.334	ug/L	0.000
Tl	205	-0.080262	1862.543	ug/L	0.004
Pb	208	0.133113	8656.028	ug/L	0.001
Bi	209		671756.814	ug/L	
Se	77	0.735103	922.723	ug/L	0.044
Se	78	-4.839430	9289.077	ug/L	0.369

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		108.137
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌ > Ge 84.859
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
| > In 84.597
| Sb
| Sb
| Ba
└ Ba
┌ Tb
| > Ho 90.712
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MS
Sample Date/Time: Wednesday, August 21, 2013 23:19:01
Autosampler Position: 71
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MS.77679

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22537.236	ug/L	
Be	9	774.212169	410234.174	ug/L	19.796
B	10	183.004783	23531.651	ug/L	4.162
B	11	186.022009	121844.025	ug/L	2.609
C	12		1492624.061	ug/L	
Na	23	64012.164836	447979224.294	ug/L	2069.106
Mg	24	23824.444203	115262131.511	ug/L	777.598
Mg	25	23917.971568	16427747.920	ug/L	912.039
Al	27	8522.653458	64345793.106	ug/L	271.457
Si	28		36640166.610	ug/L	
P	31	7591.462950	3386326.845	ug/L	293.457
S	32		78636291.313	ug/L	
Cl	35		12848707.321	ug/L	
K	39	24673.724646	279782172.142	ug/L	1037.914
Ca	44	44763.070818	16517701.864	ug/L	1333.546
Sc	45		214727.141	ug/L	
Ti	47	26.080124	25095.518	ug/L	1.309
Ti	48	54.568332	568474.632	ug/L	0.066
V	51	798.644538	11578039.417	ug/L	19.271
ClO	51		11835525.688	ug/L	
Cr	52	772.847909	9436673.921	ug/L	23.689
Cr	53	753.719183	1128297.878	ug/L	26.021
Fe	54	27672.966283	25399909.800	ug/L	974.565
Mn	55	1638.147614	30776156.484	ug/L	35.027
Fe	56	27883.058508	428434825.708	ug/L	595.660
Fe	57	28200.769705	10337675.514	ug/L	650.627
Co	59	737.423417	9913334.420	ug/L	12.810
Ni	60	724.744790	2030848.988	ug/L	15.472
Ni	62	728.757467	303012.100	ug/L	19.300
Cu	63	672.910599	4172307.983	ug/L	13.916
Zn	64	753.556370	2059938.922	ug/L	16.571
Cu	65	662.024405	2053931.369	ug/L	11.931
Zn	66	769.220330	1257913.475	ug/L	12.607
Zn	68	786.625096	964282.449	ug/L	18.740
Ge	72		168247.210	ug/L	
As	75	1087.378597	1841629.832	ug/L	19.157
Se	82	946.230598	170307.029	ug/L	27.485
ArCl	77		130025.904	ug/L	
Br	79		215764.073	ug/L	

Br	81		242518.239	ug/L	
Y	89		408160.409	ug/L	
Mo	95	1051.600092	4150913.820	ug/L	12.779
Rh	103		378253.303	ug/L	
Ag	107	57.940336	728643.222	ug/L	1.280
Ag	109	57.606851	697423.536	ug/L	1.959
Cd	111	951.616723	2996908.781	ug/L	32.471
Cd	114	955.614143	6976854.598	ug/L	36.203
In	115		551072.101	ug/L	
Sb	121	1174.599583	9950834.745	ug/L	52.982
Sb	123	1179.913403	7701698.080	ug/L	37.907
Ba	137	1033.283141	5519648.110	ug/L	32.634
Ba	138	1022.648982	35484617.481	ug/L	39.702
Tb	159		756849.844	ug/L	
Ho	165		739369.280	ug/L	
Hg	200	1.028724	3006.861	ug/L	0.010
Hg	202	1.021048	3950.231	ug/L	0.004
Tl	205	984.223617	39797489.995	ug/L	17.197
Pb	208	958.169147	54062971.059	ug/L	10.054
Bi	209		664900.361	ug/L	
Se	77	842.890046	128100.882	ug/L	9.035
Se	78	840.246935	418696.873	ug/L	2.952

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		104.242
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 85.246
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.132
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 89.564
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MSD
Sample Date/Time: Wednesday, August 21, 2013 23:51:38
Autosampler Position: 72
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MSD.77684

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22585.365	ug/L	
Be	9	793.527517	409776.676	ug/L	25.395
B	10	183.744867	23036.400	ug/L	2.082
B	11	188.140169	120119.949	ug/L	3.191
C	12		1421048.390	ug/L	
Na	23	63706.146675	434546540.864	ug/L	1990.547
Mg	24	23832.720594	112393829.170	ug/L	645.224
Mg	25	23717.076331	15878063.254	ug/L	762.463
Al	27	8393.994225	61760015.241	ug/L	313.580
Si	28		35656659.249	ug/L	
P	31	7566.544106	3289411.205	ug/L	296.942
S	32		76758667.423	ug/L	
Cl	35		12171940.862	ug/L	
K	39	24384.775767	269568545.520	ug/L	672.411
Ca	44	44387.949436	15965452.343	ug/L	1224.970
Sc	45		209359.314	ug/L	
Ti	47	25.316455	23746.544	ug/L	1.195
Ti	48	58.441904	592280.763	ug/L	5.543
V	51	809.675514	11433370.444	ug/L	41.735
ClO	51		11610471.225	ug/L	
Cr	52	770.495528	9167661.315	ug/L	30.582
Cr	53	754.202062	1100292.369	ug/L	28.229
Fe	54	27178.547011	24317490.758	ug/L	801.061
Mn	55	1659.431693	30376408.134	ug/L	64.898
Fe	56	27856.962116	417060160.716	ug/L	1090.902
Fe	57	28047.718031	10019617.327	ug/L	926.862
Co	59	754.278265	9877087.710	ug/L	36.458
Ni	60	739.244117	2017667.122	ug/L	39.247
Ni	62	738.971915	299299.787	ug/L	38.910
Cu	63	680.846559	4112566.541	ug/L	30.986
Zn	64	771.407523	2054061.126	ug/L	38.233
Cu	65	677.430149	2047182.822	ug/L	34.020
Zn	66	785.216339	1250680.231	ug/L	39.325
Zn	68	796.545868	951151.058	ug/L	40.076
Ge	72		163716.092	ug/L	
As	75	1093.621771	1802085.902	ug/L	34.202
Se	82	972.045469	170268.994	ug/L	19.547
ArCl	77		127055.442	ug/L	
Br	79		199781.719	ug/L	

Br	81		224859.707	ug/L	
Y	89		401348.415	ug/L	
Mo	95	1080.231318	4149945.821	ug/L	3.183
Rh	103		374035.682	ug/L	
Ag	107	52.875138	660310.885	ug/L	0.652
Ag	109	53.196357	639732.518	ug/L	0.170
Cd	111	961.694659	3007803.158	ug/L	20.309
Cd	114	970.394964	7036385.381	ug/L	21.966
In	115		547052.604	ug/L	
Sb	121	1193.499954	10043935.853	ug/L	18.953
Sb	123	1198.042424	7766481.529	ug/L	16.906
Ba	137	1044.093244	5539055.259	ug/L	16.441
Ba	138	1041.648025	35901715.106	ug/L	12.012
Tb	159		756035.796	ug/L	
Ho	165		738708.398	ug/L	
Hg	200	1.062990	3103.561	ug/L	0.009
Hg	202	1.059297	4093.629	ug/L	0.002
Tl	205	991.931534	40074202.532	ug/L	11.156
Pb	208	977.978193	55125263.684	ug/L	16.993
Bi	209		667305.606	ug/L	
Se	77	829.108829	126019.709	ug/L	5.263
Se	78	828.656512	413081.814	ug/L	10.607

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.636
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 82.950
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 83.518
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 89.484
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MS
Sample Date/Time: Wednesday, August 21, 2013 23:58:11
Autosampler Position: 73
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MS.77685

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22570.668	ug/L	
Be	9	806.311285	419133.737	ug/L	30.745
B	10	177.092490	22351.007	ug/L	2.349
B	11	183.120085	117689.149	ug/L	4.140
C	12		1328622.888	ug/L	
Na	23	62872.874303	431816552.597	ug/L	1451.712
Mg	24	23884.823706	113414034.827	ug/L	439.203
Mg	25	23790.963478	16040411.017	ug/L	327.515
Al	27	8681.372896	64317714.571	ug/L	242.988
Si	28		34616361.437	ug/L	
P	31	7827.877853	3426788.394	ug/L	169.713
S	32		78841319.209	ug/L	
Cl	35		12196383.992	ug/L	
K	39	23899.562033	266040517.509	ug/L	425.005
Ca	44	43521.942755	15762183.542	ug/L	778.595
Sc	45		210734.883	ug/L	
Ti	47	25.827971	24396.604	ug/L	0.675
Ti	48	56.767873	579326.131	ug/L	5.568
V	51	815.166611	11593963.651	ug/L	24.755
ClO	51		11786327.583	ug/L	
Cr	52	781.069005	9358140.663	ug/L	22.850
Cr	53	762.437207	1119923.778	ug/L	19.673
Fe	54	26820.920166	24165100.208	ug/L	474.334
Mn	55	1620.645011	29878078.587	ug/L	32.682
Fe	56	27534.956508	415227539.503	ug/L	514.211
Fe	57	27523.550493	9902319.643	ug/L	400.201
Co	59	765.002529	10090104.911	ug/L	19.766
Ni	60	750.436270	2063184.497	ug/L	21.584
Ni	62	751.225570	306513.476	ug/L	17.589
Cu	63	691.833016	4209971.907	ug/L	8.876
Zn	64	777.244639	2084894.682	ug/L	14.997
Cu	65	676.733972	2059949.745	ug/L	18.332
Zn	66	783.956441	1257751.595	ug/L	21.223
Zn	68	799.256610	961377.742	ug/L	19.208
Ge	72		164635.158	ug/L	
As	75	1104.803997	1831129.008	ug/L	14.467
Se	82	976.910504	172083.098	ug/L	18.591
ArCl	77		130353.550	ug/L	
Br	79		205030.856	ug/L	

Br	81		231019.023	ug/L	
Y	89		406532.596	ug/L	
Mo	95	1089.067204	4207351.911	ug/L	2.603
Rh	103		380272.001	ug/L	
Ag	107	726.828415	9044009.550	ug/L	13.611
Ag	109	724.138679	8675019.482	ug/L	20.096
Cd	111	973.575941	3035375.423	ug/L	8.326
Cd	114	974.067689	7041026.335	ug/L	3.613
In	115		545233.476	ug/L	
Sb	121	1179.433824	9895262.627	ug/L	33.733
Sb	123	1186.779324	7669961.839	ug/L	38.527
Ba	137	1055.380021	5581192.698	ug/L	0.256
Ba	138	1047.206078	35978009.349	ug/L	4.252
Tb	159		753972.429	ug/L	
Ho	165		748788.793	ug/L	
Hg	200	1.039765	3077.885	ug/L	0.000
Hg	202	1.061024	4155.324	ug/L	0.021
Tl	205	984.593220	40316271.186	ug/L	19.074
Pb	208	963.990590	55076842.926	ug/L	18.007
Bi	209		657068.118	ug/L	
Se	77	848.150714	128895.323	ug/L	7.890
Se	78	841.011632	419067.336	ug/L	8.002

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		102.304
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.416
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.241
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	90.705
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.06 MSD
Sample Date/Time: Thursday, August 22, 2013 00:04:45
Autosampler Position: 74
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MSD.77686

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22616.121	ug/L	
Be	9	799.833348	413770.587	ug/L	28.193
B	10	178.668376	22435.210	ug/L	4.386
B	11	185.059000	118362.197	ug/L	3.629
C	12		1311535.344	ug/L	
Na	23	62874.718085	429674696.850	ug/L	1907.995
Mg	24	23563.238565	111307955.103	ug/L	833.552
Mg	25	23770.934615	15944396.064	ug/L	700.647
Al	27	8618.509464	63546831.140	ug/L	209.457
Si	28		34582803.443	ug/L	
P	31	7718.097999	3361899.594	ug/L	240.546
S	32		77085093.416	ug/L	
Cl	35		12096353.846	ug/L	
K	39	23940.872956	265172257.949	ug/L	591.109
Ca	44	43387.310970	15636870.392	ug/L	840.425
Sc	45		209715.801	ug/L	
Ti	47	25.513535	23981.162	ug/L	0.898
Ti	48	58.098633	590076.553	ug/L	5.418
V	51	810.755063	11473957.307	ug/L	30.156
ClO	51		11641558.533	ug/L	
Cr	52	782.531493	9330859.248	ug/L	19.866
Cr	53	765.554688	1118950.109	ug/L	21.333
Fe	54	27247.226622	24425707.780	ug/L	680.432
Mn	55	1638.818250	30066946.124	ug/L	32.266
Fe	56	27459.952788	412042502.637	ug/L	705.476
Fe	57	27498.735393	9844376.783	ug/L	558.053
Co	59	753.479168	9890237.048	ug/L	18.367
Ni	60	745.087713	2038123.406	ug/L	29.270
Ni	62	744.731099	302277.944	ug/L	31.692
Cu	63	686.265819	4153995.752	ug/L	24.689
Zn	64	775.760436	2070410.879	ug/L	23.151
Cu	65	675.229404	2045451.432	ug/L	17.430
Zn	66	788.168505	1258230.180	ug/L	25.611
Zn	68	798.095703	955203.864	ug/L	24.560
Ge	72		162550.321	ug/L	
As	75	1103.228245	1805142.133	ug/L	21.088
Se	82	974.993258	169562.955	ug/L	18.387
ArCl	77		128689.093	ug/L	
Br	79		205341.994	ug/L	

Br	81		230379.538	ug/L	
Y	89		404509.252	ug/L	
Mo	95	1089.284348	4153785.729	ug/L	17.561
Rh	103		377580.254	ug/L	
Ag	107	718.960237	8887290.131	ug/L	4.843
Ag	109	740.450481	8810471.495	ug/L	23.072
Cd	111	960.610070	2974345.287	ug/L	32.946
Cd	114	966.638193	6939763.130	ug/L	27.153
In	115		541744.163	ug/L	
Sb	121	1170.480734	9755780.175	ug/L	3.303
Sb	123	1181.515165	7585044.339	ug/L	10.832
Ba	137	1045.296174	5490700.522	ug/L	22.577
Ba	138	1036.254692	35355267.989	ug/L	35.020
Tb	159		749965.028	ug/L	
Ho	165		738547.200	ug/L	
Hg	200	1.051204	3069.549	ug/L	0.020
Hg	202	1.050654	4058.613	ug/L	0.028
Tl	205	988.816353	39936065.529	ug/L	22.434
Pb	208	970.776028	54708476.469	ug/L	18.181
Bi	209		649592.485	ug/L	
Se	77	841.620811	127909.208	ug/L	8.937
Se	78	838.408941	417806.444	ug/L	10.321

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.809
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe
	Co
	Ni
	Ni
	Cu
	Zn
	Cu
	Zn
	Zn
>	Ge
	As
	Se
	ArCl
	Br
	Br
	Y
	Mo
	Rh
	Ag
	Ag
	Cd
	Cd
>	In
	Sb
	Sb
	Ba
	Ba
	Tb
>	Ho
	Hg
	Hg
	Tl
	Pb
	Bi
	Se
	Se

82.360

82.708

89.464

Sample ID: 123649.01
Sample Date/Time: Thursday, August 22, 2013 10:40:16
Autosampler Position: 59
Sample Description: 1:1 Na + Ca LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01.77778

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25066.560	ug/L	
Be	9	0.029011	28.000	ug/L	0.012
B	10	197.827922	23313.755	ug/L	11.612
B	11	204.939379	123064.680	ug/L	8.694
C	12		667728.426	ug/L	
Na	23	38996.051135	250173579.202	ug/L	2468.036
Mg	24	9620.845921	42672740.057	ug/L	572.165
Mg	25	9591.974179	6041069.505	ug/L	534.743
Al	27	12.752050	92265.059	ug/L	0.927
Si	28		16352544.240	ug/L	
P	31	155.867003	74756.894	ug/L	11.034
S	32		83279094.063	ug/L	
Cl	35		10179847.443	ug/L	
K	39	14697.803391	153111784.968	ug/L	711.809
Ca	44	27966.035083	9467635.317	ug/L	1363.377
Sc	45		197109.297	ug/L	
Ti	47	2.316323	2231.630	ug/L	0.091
Ti	48	37.639215	358914.601	ug/L	3.162
V	51	-0.434457	31487.752	ug/L	0.121
ClO	51		31638.944	ug/L	
Cr	52	0.121369	10957.524	ug/L	0.072
Cr	53	-2.663117	8976.853	ug/L	0.311
Fe	54	19784.247640	16673255.992	ug/L	903.140
Mn	55	1396.547005	24063462.874	ug/L	56.739
Fe	56	19926.573871	281687927.144	ug/L	756.823
Fe	57	20141.956503	6774869.489	ug/L	815.655
Co	59	0.333415	6462.694	ug/L	0.030
Ni	60	3.681136	9512.069	ug/L	0.259
Ni	62	2.786509	1122.080	ug/L	0.086
Cu	63	0.508458	3136.239	ug/L	0.030
Zn	64	1.325297	7028.155	ug/L	0.190
Cu	65	0.164342	591.692	ug/L	0.022
Zn	66	1.224850	4044.273	ug/L	0.136
Zn	68	2.400237	4466.808	ug/L	0.248
Ge	72		172840.637	ug/L	
As	75	2.578412	4344.908	ug/L	0.134
Se	82	2.312287	445.956	ug/L	0.133
ArCl	77		834.380	ug/L	
Br	79		185336.605	ug/L	

Br	81		212806.467	ug/L	
Y	89		443008.856	ug/L	
Mo	95	0.170556	785.042	ug/L	0.003
Rh	103		408773.871	ug/L	
Ag	107	0.029984	752.372	ug/L	0.004
Ag	109	0.028717	677.699	ug/L	0.001
Cd	111	-0.080576	78.668	ug/L	0.006
Cd	114	-0.081786	187.337	ug/L	0.001
In	115		576600.826	ug/L	
Sb	121	0.080037	985.397	ug/L	0.002
Sb	123	0.088149	806.075	ug/L	0.002
Ba	137	47.177523	263912.424	ug/L	0.287
Ba	138	46.762548	1699282.129	ug/L	0.440
Tb	159		803231.584	ug/L	
Ho	165		785509.006	ug/L	
Hg	200	0.003469	31.000	ug/L	0.000
Hg	202	0.000829	31.000	ug/L	0.000
Tl	205	-0.080213	1954.564	ug/L	0.006
Pb	208	0.024194	2549.499	ug/L	0.000
Bi	209		697235.500	ug/L	
Se	77	-0.119205	793.709	ug/L	0.347
Se	78	-3.902851	9742.809	ug/L	0.048

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		95.689
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 87.574
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 88.029
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 95.153
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123649.02
Sample Date/Time: Thursday, August 22, 2013 10:50:38
Autosampler Position: 68
Sample Description: 1:1 Na + Ca + Fe? LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.02.77779

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25378.057	ug/L	
Be	9	0.094360	60.667	ug/L	0.009
B	10	196.263654	23598.499	ug/L	3.303
B	11	204.016534	124956.561	ug/L	1.753
C	12		791916.407	ug/L	
Na	23	38168.810950	249789537.444	ug/L	1197.823
Mg	24	9519.325558	43069095.818	ug/L	271.002
Mg	25	9309.722978	5982232.566	ug/L	108.795
Al	27	44.654575	319395.870	ug/L	1.117
Si	28		16878985.270	ug/L	
P	31	364.876715	163130.174	ug/L	11.980
S	32		85493934.886	ug/L	
Cl	35		10294248.240	ug/L	
K	39	15441.251625	164022913.435	ug/L	319.615
Ca	44	28443.169581	9819446.704	ug/L	749.830
Sc	45		200834.507	ug/L	
Ti	47	4.849919	4532.508	ug/L	0.285
Ti	48	37.698134	366640.031	ug/L	2.644
V	51	-0.134791	36156.119	ug/L	0.088
ClO	51		36722.728	ug/L	
Cr	52	0.213263	12228.282	ug/L	0.037
Cr	53	-2.619138	9212.424	ug/L	0.263
Fe	54	25043.925251	21505368.342	ug/L	596.125
Mn	55	1422.371192	24989291.657	ug/L	32.236
Fe	56	25569.395206	367687189.234	ug/L	465.992
Fe	57	25458.154001	8730022.637	ug/L	310.400
Co	59	0.449536	8048.975	ug/L	0.027
Ni	60	3.748354	9881.133	ug/L	0.121
Ni	62	2.852547	1168.420	ug/L	0.195
Cu	63	0.747263	4583.201	ug/L	0.021
Zn	64	5.733499	18409.923	ug/L	0.328
Cu	65	0.418124	1341.446	ug/L	0.004
Zn	66	5.801049	11104.556	ug/L	0.313
Zn	68	7.088798	9920.510	ug/L	0.232
Ge	72		175770.843	ug/L	
As	75	3.583661	6200.562	ug/L	0.045
Se	82	2.393969	469.001	ug/L	0.093
ArCl	77		835.713	ug/L	
Br	79		193020.504	ug/L	

Br	81		221015.578	ug/L	
Y	89		441159.087	ug/L	
Mo	95	0.216265	986.730	ug/L	0.001
Rh	103		406127.614	ug/L	
Ag	107	0.032024	790.709	ug/L	0.003
Ag	109	0.027950	678.365	ug/L	0.001
Cd	111	-0.062327	141.003	ug/L	0.002
Cd	114	-0.064644	323.342	ug/L	0.001
In	115		585222.942	ug/L	
Sb	121	0.088389	1074.741	ug/L	0.005
Sb	123	0.086833	808.911	ug/L	0.000
Ba	137	57.362018	325573.121	ug/L	1.224
Ba	138	55.607893	2050393.892	ug/L	1.063
Tb	159		804902.674	ug/L	
Ho	165		793837.681	ug/L	
Hg	200	0.003674	32.000	ug/L	0.001
Hg	202	0.001800	35.334	ug/L	0.001
Tl	205	-0.078193	2063.257	ug/L	0.007
Pb	208	0.072454	5500.036	ug/L	0.001
Bi	209		698612.565	ug/L	
Se	77	0.328919	861.383	ug/L	0.237
Se	78	-3.822594	9781.690	ug/L	0.165

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		97.498
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.058
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 89.346
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 96.162
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06
Sample Date/Time: Thursday, August 22, 2013 10:58:07
Autosampler Position: 70
Sample Description: 1:1 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06.77780

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25694.941	ug/L	
Be	9	-0.016861	5.667	ug/L	0.003
B	10	108.347161	13217.404	ug/L	0.582
B	11	110.031296	68367.246	ug/L	0.893
C	12		569543.760	ug/L	
Na	23	31628.496644	209631936.712	ug/L	116.379
Mg	24	9037.389403	41406277.862	ug/L	5.971
Mg	25	9017.431566	5865048.369	ug/L	110.506
Al	27	6.436460	50241.223	ug/L	0.729
Si	28		18775334.600	ug/L	
P	31	109.322919	57631.223	ug/L	0.016
S	32		81938319.532	ug/L	
Cl	35		10560821.633	ug/L	
K	39	9058.956982	97690777.268	ug/L	44.911
Ca	44	19225.652681	6723686.226	ug/L	300.487
Sc	45		203263.833	ug/L	
Ti	47	1.715330	1759.855	ug/L	0.086
Ti	48	26.694573	262963.505	ug/L	0.097
V	51	-0.665455	29363.003	ug/L	0.031
ClO	51		29709.450	ug/L	
Cr	52	1.333620	25324.094	ug/L	0.006
Cr	53	-1.403018	11033.135	ug/L	0.069
Fe	54	10292.505782	8986668.219	ug/L	115.969
Mn	55	477.319803	8491696.396	ug/L	1.944
Fe	56	10471.564785	154250518.750	ug/L	171.723
Fe	57	10621.948644	3693334.344	ug/L	58.472
Co	59	1.552191	22178.242	ug/L	0.043
Ni	60	4.155537	11085.866	ug/L	0.049
Ni	62	3.583643	1471.467	ug/L	0.090
Cu	63	0.435829	2813.130	ug/L	0.005
Zn	64	0.132551	4179.386	ug/L	0.031
Cu	65	0.146925	561.023	ug/L	0.005
Zn	66	0.019306	2312.317	ug/L	0.069
Zn	68	0.975350	2962.846	ug/L	0.075
Ge	72		175545.938	ug/L	
As	75	67.694497	119485.920	ug/L	1.520
Se	82	1.372304	276.654	ug/L	0.065
ArCl	77		803.710	ug/L	
Br	79		112791.562	ug/L	

Br	81		138023.116	ug/L	
Y	89		442378.449	ug/L	
Mo	95	1.613005	6738.231	ug/L	0.008
Rh	103		415888.467	ug/L	
Ag	107	0.020668	645.696	ug/L	0.001
Ag	109	0.025269	650.030	ug/L	0.002
Cd	111	-0.078830	86.668	ug/L	0.001
Cd	114	-0.081281	196.004	ug/L	0.000
In	115		590886.110	ug/L	
Sb	121	0.092000	1119.080	ug/L	0.005
Sb	123	0.098630	899.375	ug/L	0.001
Ba	137	30.788154	176522.778	ug/L	0.313
Ba	138	30.742134	1144929.389	ug/L	0.425
Tb	159		810672.690	ug/L	
Ho	165		815115.514	ug/L	
Hg	200	0.001533	26.000	ug/L	0.001
Hg	202	0.002628	39.667	ug/L	0.002
Tl	205	-0.080951	1994.574	ug/L	0.007
Pb	208	0.063393	5082.271	ug/L	0.003
Bi	209		714693.966	ug/L	
Se	77	-0.101544	796.376	ug/L	0.428
Se	78	-3.569133	9904.481	ug/L	0.168

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		98.677
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.944
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 90.210
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.739
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.01 MS
Sample Date/Time: Thursday, August 22, 2013 12:16:34
Autosampler Position: 60
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MS.77792

Ca Na + Cu

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23240.338	ug/L	
Be	9	449.244530	206588.335	ug/L	2.657
B	10	189.075100	21097.668	ug/L	2.379
B	11	193.785522	110135.844	ug/L	4.580
C	12		989970.503	ug/L	
Na	23	42149.913288	256021986.543	ug/L	185.812
Mg	24	13765.821156	57804617.982	ug/L	66.824
Mg	25	13726.713745	8183683.303	ug/L	69.526
Al	27	4757.485536	31177384.838	ug/L	38.165
Si	28		14969124.007	ug/L	
P	31	4356.207007	1691150.505	ug/L	53.277
S	32		76656153.475	ug/L	
Cl	35		10489185.461	ug/L	
K	39	18610.599975	183333006.044	ug/L	191.556
Ca	44	32521.324806	10418244.961	ug/L	63.539
Sc	45		186290.743	ug/L	
Ti	47	15.180394	12761.079	ug/L	0.308
Ti	48	43.731715	395106.557	ug/L	1.460
V	51	440.280180	5555015.547	ug/L	0.908
ClO	51		5643590.059	ug/L	
Cr	52	426.695054	4526100.683	ug/L	4.795
Cr	53	421.753215	553226.672	ug/L	1.189
Fe	54	24405.020430	19449608.654	ug/L	68.243
Mn	55	1832.113805	29870740.828	ug/L	14.247
Fe	56	24803.055493	331044565.103	ug/L	72.448
Fe	57	24924.888782	7930536.684	ug/L	229.781
Co	59	421.271038	4915350.027	ug/L	1.252
Ni	60	424.248529	1031673.229	ug/L	1.446
Ni	62	423.706775	152916.548	ug/L	2.299
Cu	63	402.574753	2166167.714	ug/L	3.762
Zn	64	451.757063	1073106.153	ug/L	0.469
Cu	65	401.677474	1081488.975	ug/L	2.638
Zn	66	462.124958	656629.030	ug/L	4.077
Zn	68	466.614448	497094.528	ug/L	3.181
Ge	72		169146.547	ug/L	
As	75	474.293779	807379.856	ug/L	11.613
Se	82	473.722769	85747.305	ug/L	5.222
ArCl	77		65111.025	ug/L	
Br	79		174899.762	ug/L	

Br	81		202527.437	ug/L	
Y	89		414252.388	ug/L	
Mo	95	511.905613	2031600.167	ug/L	3.192
Rh	103		386160.884	ug/L	
Ag	107	35.615476	460733.125	ug/L	4.492
Ag	109	33.844641	421935.028	ug/L	1.030
Cd	111	474.276565	1537460.372	ug/L	4.286
Cd	114	475.470810	3573407.988	ug/L	6.388
In	115		566851.192	ug/L	
Sb	121	581.307721	5069898.877	ug/L	2.434
Sb	123	584.728296	3928536.586	ug/L	2.971
Ba	137	529.347770	2910184.143	ug/L	7.421
Ba	138	520.901415	18604947.855	ug/L	3.846
Tb	159		787949.322	ug/L	
Ho	165		787306.817	ug/L	
Hg	200	0.505913	1585.821	ug/L	0.024
Hg	202	0.493363	2046.918	ug/L	0.002
Tl	205	465.643401	20056759.751	ug/L	3.673
Pb	208	459.942012	27635371.112	ug/L	2.916
Bi	209		687156.551	ug/L	
Se	77	421.472073	64460.382	ug/L	4.716
Se	78	419.259010	214746.430	ug/L	9.366

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		90.437
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 85.702
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 86.541
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.371
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.01 MSD
Sample Date/Time: Thursday, August 22, 2013 12:23:06
Autosampler Position: 61
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MSD.77793

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22997.052	ug/L	
Be	9	441.445816	206513.512	ug/L	8.786
B	10	191.152174	21696.412	ug/L	2.495
B	11	196.779467	113756.888	ug/L	3.298
C	12		954667.794	ug/L	
Na	23	42192.211504	260709490.514	ug/L	621.093
Mg	24	13725.019686	58627818.409	ug/L	140.436
Mg	25	13734.814378	8329871.625	ug/L	284.474
Al	27	4705.119713	31366276.805	ug/L	99.458
Si	28		15007481.762	ug/L	
P	31	4295.013061	1696418.181	ug/L	84.360
S	32		77473567.324	ug/L	
Cl	35		10713819.132	ug/L	
K	39	18536.429678	185752556.018	ug/L	172.289
Ca	44	32095.290852	10459446.882	ug/L	425.492
Sc	45		189506.833	ug/L	
Ti	47	15.136280	12945.006	ug/L	0.029
Ti	48	43.854376	403103.917	ug/L	0.984
V	51	432.731190	5554738.807	ug/L	6.927
ClO	51		5624010.311	ug/L	
Cr	52	419.558164	4527263.746	ug/L	4.689
Cr	53	415.254812	554299.338	ug/L	1.909
Fe	54	24359.031652	19748473.564	ug/L	158.428
Mn	55	1810.264669	30023557.636	ug/L	17.666
Fe	56	24752.245874	336075290.000	ug/L	268.220
Fe	57	24700.183471	7994650.353	ug/L	297.473
Co	59	416.464834	4943171.150	ug/L	3.412
Ni	60	415.394289	1027600.696	ug/L	4.606
Ni	62	408.944738	150142.244	ug/L	3.522
Cu	63	385.983788	2112828.918	ug/L	2.163
Zn	64	435.864987	1053353.248	ug/L	0.272
Cu	65	389.330470	1066323.792	ug/L	0.401
Zn	66	450.361023	650998.203	ug/L	0.346
Zn	68	457.560871	495890.552	ug/L	3.725
Ge	72		169835.765	ug/L	
As	75	471.602755	806407.078	ug/L	4.488
Se	82	476.705851	86653.444	ug/L	1.844
ArCl	77		64689.994	ug/L	
Br	79		174579.914	ug/L	

Br	81		201740.864	ug/L	
Y	89		423866.554	ug/L	
Mo	95	517.238722	2061463.708	ug/L	13.741
Rh	103		392439.601	ug/L	
Ag	107	29.586585	385193.287	ug/L	0.201
Ag	109	29.701155	372323.072	ug/L	0.095
Cd	111	467.217260	1523109.111	ug/L	4.066
Cd	114	469.450121	3548117.803	ug/L	4.252
In	115		570012.411	ug/L	
Sb	121	581.780108	5102452.501	ug/L	4.211
Sb	123	587.269731	3967570.953	ug/L	13.951
Ba	137	523.193226	2892650.038	ug/L	12.567
Ba	138	514.300630	18472590.089	ug/L	9.876
Tb	159		789420.008	ug/L	
Ho	165		778337.152	ug/L	
Hg	200	0.492024	1524.476	ug/L	0.016
Hg	202	0.507337	2079.926	ug/L	0.022
Tl	205	471.408971	20071573.849	ug/L	8.352
Pb	208	466.285539	27698468.979	ug/L	6.365
Bi	209		707588.046	ug/L	
Se	77	422.092335	64554.050	ug/L	5.769
Se	78	415.536108	212942.845	ug/L	5.525

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		91.998
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
> Ge 86.051
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
> In 87.024
Sb
Sb
Ba
Ba
Tb
> Ho 94.284
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123649.01 MS
Sample Date/Time: Thursday, August 22, 2013 12:29:39
Autosampler Position: 62
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MS.77794

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23444.863	ug/L	
Be	9	445.265602	205079.128	ug/L	1.786
B	10	180.490185	20174.233	ug/L	1.644
B	11	185.423798	105570.958	ug/L	5.011
C	12		1009111.146	ug/L	
Na	23	40222.661491	244722380.763	ug/L	518.434
Mg	24	13371.416903	56242647.942	ug/L	266.317
Mg	25	13441.868450	8026684.352	ug/L	97.375
Al	27	4767.787031	31294804.169	ug/L	40.171
Si	28		14320188.232	ug/L	
P	31	4389.310112	1706758.139	ug/L	41.470
S	32		76715503.656	ug/L	
Cl	35		10573412.233	ug/L	
K	39	18231.284663	179883121.394	ug/L	29.629
Ca	44	31277.983083	10035835.419	ug/L	102.407
Sc	45		186583.422	ug/L	
Ti	47	15.458227	13012.437	ug/L	0.028
Ti	48	41.279819	373604.459	ug/L	0.974
V	51	440.313299	5564232.372	ug/L	0.510
ClO	51		5605416.122	ug/L	
Cr	52	422.046907	4483650.501	ug/L	1.945
Cr	53	408.899373	537567.968	ug/L	1.129
Fe	54	23099.194019	18441012.076	ug/L	42.139
Mn	55	1746.286449	28516176.556	ug/L	6.559
Fe	56	23791.174432	318167216.051	ug/L	206.033
Fe	57	23872.080828	7608451.782	ug/L	396.727
Co	59	417.295040	4876798.794	ug/L	3.025
Ni	60	415.735923	1012601.498	ug/L	1.962
Ni	62	413.727160	149543.768	ug/L	4.345
Cu	63	393.125701	2118612.310	ug/L	3.107
Zn	64	440.777027	1048661.238	ug/L	6.280
Cu	65	391.680559	1056168.163	ug/L	2.659
Zn	66	453.498586	645409.338	ug/L	0.380
Zn	68	456.703418	487336.578	ug/L	1.622
Ge	72		164348.373	ug/L	
As	75	477.182032	789562.545	ug/L	0.556
Se	82	485.780303	85449.773	ug/L	0.498
ArCl	77		64699.058	ug/L	
Br	79		181881.337	ug/L	

Br	81		207362.067	ug/L	
Y	89		413339.358	ug/L	
Mo	95	519.783332	2004796.725	ug/L	10.449
Rh	103		385409.556	ug/L	
Ag	107	427.924723	5478773.501	ug/L	0.717
Ag	109	425.486957	5245632.423	ug/L	0.922
Cd	111	470.578929	1509855.748	ug/L	6.108
Cd	114	473.032951	3518783.357	ug/L	5.051
In	115		561033.646	ug/L	
Sb	121	548.889691	4737647.675	ug/L	31.275
Sb	123	550.987434	3663302.805	ug/L	37.383
Ba	137	516.893801	2812755.664	ug/L	0.581
Ba	138	517.141787	18281682.193	ug/L	2.040
Tb	159		770281.111	ug/L	
Ho	165		768489.819	ug/L	
Hg	200	0.515836	1577.153	ug/L	0.004
Hg	202	0.495363	2005.908	ug/L	0.015
Tl	205	470.819970	19793408.680	ug/L	5.075
Pb	208	465.837017	27322298.226	ug/L	2.893
Bi	209		702447.705	ug/L	
Se	77	414.836789	63458.353	ug/L	3.631
Se	78	413.812026	212107.602	ug/L	3.605

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		90.579
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 83.271
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.653
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 93.091
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.01 MSD
Sample Date/Time: Thursday, August 22, 2013 12:36:11
Autosampler Position: 63
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.01 MSD.77795

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23463.597	ug/L	
Be	9	461.502994	207600.035	ug/L	16.171
B	10	188.432083	20571.456	ug/L	3.706
B	11	193.220236	107439.594	ug/L	3.514
C	12		1000549.974	ug/L	
Na	23	42052.974158	249877318.417	ug/L	1338.168
Mg	24	13839.599195	56845390.135	ug/L	495.556
Mg	25	13796.276954	8046120.882	ug/L	427.281
Al	27	4938.354609	31657272.537	ug/L	158.727
Si	28		14452121.163	ug/L	
P	31	4522.596225	1717060.956	ug/L	169.378
S	32		76626478.385	ug/L	
Cl	35		10364364.857	ug/L	
K	39	18526.906133	178519953.885	ug/L	685.297
Ca	44	31556.832335	9890887.330	ug/L	709.522
Sc	45		182322.930	ug/L	
Ti	47	15.843689	13019.447	ug/L	0.666
Ti	48	45.210176	399707.355	ug/L	0.860
V	51	450.963793	5566253.975	ug/L	8.554
ClO	51		5612676.397	ug/L	
Cr	52	434.605491	4509789.679	ug/L	11.066
Cr	53	428.138660	549282.914	ug/L	9.931
Fe	54	24207.683313	18875115.795	ug/L	598.771
Mn	55	1819.680442	29026036.155	ug/L	39.506
Fe	56	24831.908371	324272686.720	ug/L	474.575
Fe	57	24767.091742	7707864.576	ug/L	961.564
Co	59	432.463468	4936773.751	ug/L	9.343
Ni	60	434.211283	1033172.612	ug/L	6.966
Ni	62	430.794708	152085.454	ug/L	15.041
Cu	63	405.440717	2134475.169	ug/L	8.996
Zn	64	456.150272	1060060.998	ug/L	10.568
Cu	65	405.859159	1069085.276	ug/L	9.292
Zn	66	466.251161	648068.883	ug/L	13.381
Zn	68	472.098126	492065.180	ug/L	8.357
Ge	72		165888.072	ug/L	
As	75	480.835246	802955.679	ug/L	7.762
Se	82	484.381532	85978.768	ug/L	15.506
ArCl	77		64058.234	ug/L	
Br	79		180848.641	ug/L	

Br	81		208394.088	ug/L	
Y	89		414717.751	ug/L	
Mo	95	520.705703	2027181.658	ug/L	7.828
Rh	103		383777.915	ug/L	
Ag	107	428.891693	5491680.925	ug/L	12.187
Ag	109	428.940262	5288005.415	ug/L	16.239
Cd	111	473.150056	1518185.921	ug/L	15.642
Cd	114	474.873065	3532977.444	ug/L	12.706
In	115		561327.224	ug/L	
Sb	121	562.388280	4858154.861	ug/L	7.337
Sb	123	566.317222	3768131.514	ug/L	4.674
Ba	137	527.643174	2872650.765	ug/L	1.305
Ba	138	516.961237	18281119.358	ug/L	7.352
Tb	159		772799.352	ug/L	
Ho	165		751224.233	ug/L	
Hg	200	0.514726	1538.479	ug/L	0.002
Hg	202	0.521334	2062.255	ug/L	0.000
Tl	205	485.619522	19957583.413	ug/L	2.928
Pb	208	480.209734	27532880.748	ug/L	1.022
Bi	209		679802.119	ug/L	
Se	77	416.870808	63765.521	ug/L	7.463
Se	78	412.116575	211286.229	ug/L	3.718

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		88.511
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 84.051
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 85.698
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.000
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MS
Sample Date/Time: Thursday, August 22, 2013 12:44:08
Autosampler Position: 71
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MS.77796

Na + Cu

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22848.690	ug/L	
Be	9	456.345725	212505.846	ug/L	11.476
B	10	104.522707	11834.817	ug/L	2.669
B	11	106.835174	61631.244	ug/L	0.183
C	12		855020.942	ug/L	
Na	23	36581.364074	225033108.466	ug/L	643.325
Mg	24	13846.673416	58885801.448	ug/L	215.583
Mg	25	13756.251630	8306065.642	ug/L	196.791
Al	27	4773.091976	31672588.101	ug/L	130.023
Si	28		18138499.064	ug/L	
P	31	4401.559499	1730203.594	ug/L	122.878
S	32		78007718.948	ug/L	
Cl	35		10706612.098	ug/L	
K	39	13623.046377	136070744.008	ug/L	205.544
Ca	44	24734.363849	8027949.436	ug/L	284.854
Sc	45		188715.543	ug/L	
Ti	47	14.899996	12685.972	ug/L	0.523
Ti	48	34.628206	316696.458	ug/L	1.151
V	51	440.328765	5626268.874	ug/L	8.626
ClO	51		5728906.510	ug/L	
Cr	52	425.351332	4567706.440	ug/L	16.430
Cr	53	417.711149	554789.106	ug/L	19.169
Fe	54	15447.825343	12489913.821	ug/L	307.551
Mn	55	915.206956	15108864.548	ug/L	27.880
Fe	56	15579.933698	211646516.430	ug/L	324.899
Fe	57	15707.919374	5064561.528	ug/L	377.988
Co	59	420.259143	4966013.042	ug/L	7.162
Ni	60	422.152983	1039714.346	ug/L	6.166
Ni	62	421.505329	154040.984	ug/L	11.250
Cu	63	398.084292	2169169.991	ug/L	9.210
Zn	64	452.422617	1088043.912	ug/L	16.695
Cu	65	399.745475	1089783.556	ug/L	11.587
Zn	66	460.431782	662434.439	ug/L	13.185
Zn	68	461.094571	497493.186	ug/L	7.440
Ge	72		160486.406	ug/L	
As	75	568.803066	918668.368	ug/L	14.063
Se	82	510.318487	87583.630	ug/L	23.548
ArCl	77		65194.929	ug/L	
Br	79		106055.061	ug/L	

Br	81		130415.548	ug/L	
Y	89		407218.656	ug/L	
Mo	95	536.553941	2020161.160	ug/L	6.442
Rh	103		379102.382	ug/L	
Ag	107	40.881216	517758.840	ug/L	1.027
Ag	109	39.703786	484184.166	ug/L	1.032
Cd	111	490.585231	1555988.622	ug/L	14.801
Cd	114	487.729122	3586149.516	ug/L	16.876
In	115		554932.675	ug/L	
Sb	121	595.565947	5081304.223	ug/L	21.910
Sb	123	597.030476	3923878.439	ug/L	21.206
Ba	137	522.640444	2812018.530	ug/L	9.827
Ba	138	520.596704	18196045.442	ug/L	10.826
Tb	159		776794.750	ug/L	
Ho	165		765888.934	ug/L	
Hg	200	0.519709	1583.487	ug/L	0.001
Hg	202	0.515048	2076.925	ug/L	0.017
Tl	205	480.896153	20145719.708	ug/L	7.798
Pb	208	477.542468	27913365.639	ug/L	1.359
Bi	209		668019.955	ug/L	
Se	77	423.081752	64703.467	ug/L	8.639
Se	78	419.723544	214971.477	ug/L	5.834

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		91.614
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	81.314
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	84.721
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	92.776
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123649.06 MSD
Sample Date/Time: Thursday, August 22, 2013 12:50:41
Autosampler Position: 72
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MSD.77797

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22843.337	ug/L	
Be	9	458.575039	209816.386	ug/L	13.792
B	10	104.976175	11682.955	ug/L	0.258
B	11	107.375561	60850.260	ug/L	1.688
C	12		874226.541	ug/L	
Na	23	36504.578136	220670394.097	ug/L	435.196
Mg	24	13839.953528	57825725.685	ug/L	338.328
Mg	25	13857.286487	8220974.320	ug/L	253.080
Al	27	4801.014988	31307567.139	ug/L	91.282
Si	28		17906174.490	ug/L	
P	31	4401.788293	1700438.337	ug/L	80.511
S	32		78380006.443	ug/L	
Cl	35		11040480.078	ug/L	
K	39	13743.561285	134901487.801	ug/L	47.978
Ca	44	24553.202389	7830791.279	ug/L	210.395
Sc	45		185425.998	ug/L	
Ti	47	14.489490	12121.204	ug/L	1.057
Ti	48	33.880079	304292.955	ug/L	2.471
V	51	443.699054	5570733.399	ug/L	6.921
ClO	51		5667417.091	ug/L	
Cr	52	430.449590	4543500.560	ug/L	6.835
Cr	53	420.389615	548794.918	ug/L	7.150
Fe	54	15451.133533	12275012.853	ug/L	327.910
Mn	55	932.665599	15132029.335	ug/L	16.986
Fe	56	15740.493127	210078498.280	ug/L	330.047
Fe	57	15837.885387	5016973.078	ug/L	520.229
Co	59	422.956316	4910271.734	ug/L	11.093
Ni	60	421.944273	1020820.296	ug/L	14.865
Ni	62	417.230677	149828.399	ug/L	11.131
Cu	63	394.434341	2112209.664	ug/L	4.988
Zn	64	451.226784	1066772.069	ug/L	3.062
Cu	65	395.920292	1060876.228	ug/L	3.890
Zn	66	461.089724	651988.101	ug/L	5.948
Zn	68	464.436047	492342.438	ug/L	9.053
Ge	72		160575.094	ug/L	
As	75	558.684234	902472.264	ug/L	20.873
Se	82	503.348606	86425.592	ug/L	21.330
ArCl	77		64094.794	ug/L	
Br	79		101256.520	ug/L	

Br	81		124921.737	ug/L	
Y	89		403406.555	ug/L	
Mo	95	532.417092	2004797.785	ug/L	15.850
Rh	103		383817.615	ug/L	
Ag	107	30.181096	381925.758	ug/L	1.651
Ag	109	30.425195	370710.083	ug/L	1.681
Cd	111	480.934929	1524013.578	ug/L	25.184
Cd	114	484.645398	3562215.454	ug/L	16.804
In	115		554835.722	ug/L	
Sb	121	587.773601	5013406.495	ug/L	19.752
Sb	123	592.357723	3891846.633	ug/L	20.619
Ba	137	516.417608	2774799.341	ug/L	31.296
Ba	138	512.104017	17870575.951	ug/L	36.918
Tb	159		770920.664	ug/L	
Ho	165		757092.673	ug/L	
Hg	200	0.513936	1548.814	ug/L	0.015
Hg	202	0.504973	2012.576	ug/L	0.022
Tl	205	477.493493	19768357.644	ug/L	11.886
Pb	208	472.459222	27282546.493	ug/L	18.668
Bi	209		685109.686	ug/L	
Se	77	413.574239	63267.689	ug/L	1.336
Se	78	414.939498	212653.813	ug/L	0.251

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		90.017
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 81.359
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.707
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.711
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MS
Sample Date/Time: Thursday, August 22, 2013 12:57:14
Autosampler Position: 73
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MS.77798

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22711.018	ug/L	
Be	9	477.112277	215360.850	ug/L	16.708
B	10	103.430637	11358.207	ug/L	0.662
B	11	105.570675	59046.476	ug/L	0.505
C	12		888855.183	ug/L	
Na	23	36199.168552	215884136.531	ug/L	709.706
Mg	24	13919.980232	57396535.719	ug/L	161.659
Mg	25	13900.946240	8137163.700	ug/L	235.070
Al	27	4964.740119	31945715.675	ug/L	75.083
Si	28		17286480.958	ug/L	
P	31	4585.555486	1747101.876	ug/L	127.105
S	32		78652477.726	ug/L	
Cl	35		10640706.820	ug/L	
K	39	13522.728318	130913282.223	ug/L	452.596
Ca	44	24101.189101	7581872.367	ug/L	715.753
Sc	45		182966.619	ug/L	
Ti	47	15.046211	12416.932	ug/L	0.574
Ti	48	33.384750	295847.440	ug/L	2.025
V	51	453.101545	5610053.828	ug/L	17.557
ClO	51		5671026.110	ug/L	
Cr	52	438.608491	4566311.159	ug/L	15.184
Cr	53	433.305726	557524.982	ug/L	18.199
Fe	54	15403.246007	12071085.975	ug/L	538.905
Mn	55	927.085237	14834795.261	ug/L	39.420
Fe	56	15663.222603	206161719.611	ug/L	823.377
Fe	57	15688.760992	4902447.029	ug/L	681.406
Co	59	435.646643	4988745.444	ug/L	17.712
Ni	60	438.478836	1046585.103	ug/L	16.320
Ni	62	435.853512	154408.468	ug/L	14.005
Cu	63	411.373331	2173316.782	ug/L	8.231
Zn	64	466.035187	1086759.763	ug/L	9.842
Cu	65	414.430966	1095481.252	ug/L	8.934
Zn	66	478.394157	667160.373	ug/L	15.176
Zn	68	478.895415	500775.095	ug/L	13.572
Ge	72		160004.292	ug/L	
As	75	565.127935	910049.950	ug/L	15.870
Se	82	505.711001	86572.338	ug/L	13.780
ArCl	77		66003.397	ug/L	
Br	79		100803.901	ug/L	

Br	81		123623.812	ug/L	
Y	89		400101.035	ug/L	
Mo	95	539.207931	2024433.667	ug/L	1.146
Rh	103		380736.637	ug/L	
Ag	107	280.915082	3508382.769	ug/L	23.486
Ag	109	266.623047	3208273.083	ug/L	7.671
Cd	111	496.768707	1555874.455	ug/L	6.798
Cd	114	498.889982	3622523.747	ug/L	7.975
In	115		547723.312	ug/L	
Sb	121	575.804970	4853375.422	ug/L	9.557
Sb	123	580.298595	3767496.324	ug/L	5.769
Ba	137	533.523443	2833534.364	ug/L	15.521
Ba	138	527.918911	18212904.954	ug/L	20.291
Tb	159		773551.656	ug/L	
Ho	165		759347.612	ug/L	
Hg	200	0.521182	1573.152	ug/L	0.022
Hg	202	0.513896	2055.587	ug/L	0.005
Tl	205	489.547023	20326976.561	ug/L	11.428
Pb	208	481.607467	27891935.092	ug/L	18.143
Bi	209		676717.954	ug/L	
Se	77	422.025551	64543.965	ug/L	3.266
Se	78	421.117447	215646.762	ug/L	3.324

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		88.823
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
> Ge 81.070
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
> In 83.621
| Sb
| Sb
| Ba
└ Ba
┌ Tb
> Ho 91.984
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123649.06 MSD
Sample Date/Time: Thursday, August 22, 2013 13:03:47
Autosampler Position: 74
Sample Description: 1:1 Sc mets post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123649.06 MSD.77799

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22977.050	ug/L	
Be	9	470.622544	210723.019	ug/L	15.968
B	10	102.129783	11123.580	ug/L	1.891
B	11	106.777785	59230.645	ug/L	1.392
C	12		859945.177	ug/L	
Na	23	36428.927284	215493511.200	ug/L	842.948
Mg	24	13832.280525	56563954.091	ug/L	331.386
Mg	25	13927.647198	8084504.263	ug/L	488.411
Al	27	4982.886640	31795112.620	ug/L	156.692
Si	28		17109051.132	ug/L	
P	31	4555.042674	1721620.678	ug/L	119.521
S	32		76639967.063	ug/L	
Cl	35		10665801.188	ug/L	
K	39	13744.626224	132007289.268	ug/L	307.123
Ca	44	24350.953333	7600024.577	ug/L	488.211
Sc	45		181501.891	ug/L	
Ti	47	15.039065	12314.793	ug/L	0.326
Ti	48	33.838633	297409.054	ug/L	2.268
V	51	455.442271	5594462.619	ug/L	12.870
ClO	51		5642449.628	ug/L	
Cr	52	442.677556	4572319.753	ug/L	10.796
Cr	53	433.557035	553448.956	ug/L	13.523
Fe	54	15499.570958	12051658.896	ug/L	311.660
Mn	55	930.244567	14772593.795	ug/L	14.827
Fe	56	15655.830345	204554501.008	ug/L	185.603
Fe	57	15715.406721	4873475.599	ug/L	277.200
Co	59	435.719670	4951075.352	ug/L	9.495
Ni	60	437.306590	1035609.104	ug/L	10.891
Ni	62	433.933052	152482.009	ug/L	15.059
Cu	63	411.370385	2155485.579	ug/L	11.692
Zn	64	466.107898	1077815.596	ug/L	18.365
Cu	65	407.211002	1067458.981	ug/L	14.470
Zn	66	475.205024	657407.382	ug/L	14.269
Zn	68	476.545958	494282.792	ug/L	15.073
Ge	72		158175.370	ug/L	
As	75	570.056844	907565.926	ug/L	12.545
Se	82	509.288689	86199.822	ug/L	8.631
ArCl	77		64852.481	ug/L	
Br	79		99092.751	ug/L	

Br	81		121943.115	ug/L	
Y	89		400927.294	ug/L	
Mo	95	541.523719	2009991.086	ug/L	0.890
Rh	103		381597.297	ug/L	
Ag	107	278.175077	3452813.101	ug/L	19.940
Ag	109	279.462020	3344878.993	ug/L	5.204
Cd	111	497.887138	1549590.686	ug/L	16.957
Cd	114	494.356493	3568079.932	ug/L	8.662
In	115		544496.525	ug/L	
Sb	121	580.629295	4864656.087	ug/L	2.108
Sb	123	583.544404	3766205.723	ug/L	3.392
Ba	137	531.284125	2804731.786	ug/L	13.703
Ba	138	530.101303	18178225.394	ug/L	17.632
Tb	159		763405.658	ug/L	
Ho	165		750149.437	ug/L	
Hg	200	0.536434	1597.823	ug/L	0.036
Hg	202	0.528748	2086.260	ug/L	0.022
Tl	205	489.724861	20082283.578	ug/L	15.319
Pb	208	483.573894	27658026.762	ug/L	21.152
Bi	209		669184.015	ug/L	
Se	77	420.427383	64302.618	ug/L	6.891
Se	78	415.293393	212825.260	ug/L	1.542

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		88.112
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	80.143
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.128
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	90.870
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123650
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/16/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 9.3.13 Date | 213 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123650.01	GW-MW-9-0813	8/16/13	8/15/13	aqueous		Adheres to Sample Acceptance Policy
123650.02	GW-MW-10-0813	8/16/13	8/15/13	aqueous		Adheres to Sample Acceptance Policy
123650.03	GW-AE-2A-0813	8/16/13	8/15/13	aqueous		Adheres to Sample Acceptance Policy
123650.04	GW-AE-2B-0813	8/16/13	8/15/13	aqueous		Adheres to Sample Acceptance Policy
123650.05	Trip Blank - 8260	8/16/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123650.06	Trip Blank - 1,4 Dioxane	8/16/13	6/20/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT

EAI ID#: **123650**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/16/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

No field QC was designated for this sample delivery group.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

VOC 8260B

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

1,4-DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

METALS

The parent sample for matrix spike analysis was not specific to this sample delivery group.

The LCS deviated high from acceptability criteria for antimony (Sb). Antimony was not detected above the reporting limit in samples.

LABORATORY REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-AE-2A-0813	GW-AE-2B -0813	Trip Blank - 8260
Lab Sample ID:	123650.03	123650.04	123650.05
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	8/15/13	8/15/13	7/29/13
Date Received:	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13
Analyst:	BAM	BAM	BAM
Method:	8260B	8260B	8260B
Dilution Factor:	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5
Diethyl Ether	**5**	**26**	< 5
Acetone	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5
Carbon disulfide	< 5	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2	< 2
1,1-Dichloroethane	< 2	< 2	< 2
2,2-Dichloropropane	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2	< 2
2-Butanone(MEK)	< 10	< 10	< 10
Bromochloromethane	< 2	< 2	< 2
Tetrahydrofuran(THF)	< 10	**30**	< 10
Chloroform	< 2	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2	< 2
Carbon tetrachloride	< 2	< 2	< 2
1,1-Dichloropropene	< 2	< 2	< 2
Benzene	< 1	**2**	< 1
1,2-Dichloroethane	< 2	< 2	< 2
Trichloroethene	< 2	< 2	< 2
1,2-Dichloropropane	< 2	< 2	< 2
Dibromomethane	< 2	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	**70**	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2	< 2
Toluene	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2	< 2
2-Hexanone	< 10	< 10	< 10
Tetrachloroethene	< 2	< 2	< 2
1,3-Dichloropropane	< 2	< 2	< 2
Dibromochloromethane	< 2	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2	< 2
Chlorobenzene	< 2	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1

LABORATORY REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-AE-2A-0813	GW-AE-2B -0813	Trip Blank - 8260
Lab Sample ID:	123650.03	123650.04	123650.05
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	8/15/13	8/15/13	7/29/13
Date Received:	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13
Analyst:	BAM	BAM	BAM
Method:	8260B	8260B	8260B
Dilution Factor:	1	1	1
mp-Xylene	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1
Styrene	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1
Bromobenzene	< 2	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2	< 2
1,2,3-Trichloropropane	< 2	< 2	< 2
n-Propylbenzene	< 1	< 1	< 1
2-Chlorotoluene	< 2	< 2	< 2
4-Chlorotoluene	< 2	< 2	< 2
1,3,5-Trimethylbenzene	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5
Naphthalene	< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	**98 %R**	**98 %R**	**97 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**102 %R**	**102 %R**
Toluene-d8 (surr)	**98 %R**	**98 %R**	**98 %R**

QC REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	21 (103 %R)	21 (105 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Chloromethane	< 2	21 (107 %R)	22 (110 %R) (3 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	< 2	22 (111 %R)	23 (116 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromomethane	< 2	20 (98 %R)	22 (110 %R) (12 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Chloroethane	< 5	21 (103 %R)	21 (105 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	< 5	20 (99 %R)	20 (100 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	< 5	20 (102 %R)	20 (102 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Acetone	< 10	20 (95 %R)	20 (94 %R) (1 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	< 1	17 (87 %R)	18 (89 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	< 30	90 (91 %R)	80 (84 %R) (8 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Methylene chloride	< 5	19 (95 %R)	19 (97 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	< 5	17 (83 %R)	17 (86 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	< 5	19 (96 %R)	19 (96 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	< 5	19 (95 %R)	19 (94 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	< 5	19 (96 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	< 5	19 (97 %R)	20 (98 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	< 2	19 (96 %R)	20 (98 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	< 2	20 (98 %R)	20 (99 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	< 2	19 (95 %R)	19 (96 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	< 2	22 (109 %R)	22 (108 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	< 10	20 (97 %R)	20 (95 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	< 2	20 (99 %R)	20 (100 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	< 10	20 (98 %R)	20 (94 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Chloroform	< 2	20 (99 %R)	20 (101 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	< 2	18 (92 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	< 2	18 (91 %R)	19 (94 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	< 2	18 (92 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Benzene	< 1	20 (102 %R)	21 (103 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	< 2	20 (98 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Trichloroethene	< 2	18 (92 %R)	19 (93 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	< 2	20 (101 %R)	20 (102 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Dibromomethane	< 2	20 (100 %R)	20 (101 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	< 0.5	19 (93 %R)	19 (94 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	< 50	< 50 (129 %R)	< 50 (125 %R) (3 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	< 10	20 (106 %R)	20 (104 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	< 2	21 (107 %R)	21 (107 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Toluene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	< 2	19 (95 %R)	19 (95 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	< 2	20 (100 %R)	20 (98 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Hexanone	< 10	20 (104 %R)	20 (100 %R) (4 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	< 2	19 (95 %R)	19 (96 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	< 2	19 (96 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	< 2	17 (86 %R)	17 (86 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	< 2	19 (97 %R)	19 (95 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	< 2	20 (98 %R)	20 (98 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	< 2	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
mp-Xylene	< 1	39 (96 %R)	39 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
o-Xylene	< 1	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Styrene	< 1	21 (104 %R)	21 (104 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromoform	< 2	17 (83 %R)	17 (83 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	< 1	22 (109 %R)	22 (110 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromobenzene	< 2	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	< 2	20 (100 %R)	19 (97 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	< 1	21 (103 %R)	21 (104 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	< 2	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	< 2	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	< 1	20 (101 %R)	20 (101 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	< 1	20 (100 %R)	20 (101 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	< 1	20 (101 %R)	20 (101 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	< 1	20 (102 %R)	20 (102 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	< 1	21 (105 %R)	21 (105 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	< 1	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	< 1	20 (99 %R)	20 (98 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	< 1	21 (103 %R)	21 (104 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	< 2	18 (88 %R)	17 (86 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	< 1	20 (101 %R)	20 (102 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	< 1	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	< 0.5	17 (85 %R)	18 (88 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Naphthalene	< 5	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	< 1	19 (96 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	98 %R	100 %R	99 %R	8/23/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4 (surr)	102 %R	101 %R	100 %R	8/23/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	99 %R	98 %R	98 %R	8/23/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

LABORATORY REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-9-0813	GW-AE-2A -0813	GW-AE-2B -0813	Trip Blank - 1,4 Dioxane
Lab Sample ID:	123650.01	123650.03	123650.04	123650.06
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/15/13	8/15/13	8/15/13	6/20/13
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13
Units:	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/21/13	8/21/13	8/21/13	8/21/13
Analyst:	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	5	5	10	1
1,4-Dioxane	**6.1**	**15**	**88**	< 0.25
4-Bromofluorobenzene (surr)	**108 %R**	**107 %R**	**106 %R**	**107 %R**
Toluene-d8 (surr)	**102 %R**	**100 %R**	**101 %R**	**96 %R**

QC REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.3 (86 %R)	4.5 (89 %R) (3 RPD)	ug/l	8/21/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	105 %R	104 %R	104 %R	% Rec	8/21/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	96 %R	95 %R	97 %R	% Rec	8/21/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-9-0813	GW-MW-10 -0813	GW-AE-2A -0813	GW-AE-2B -0813					
Lab Sample ID:	123650.01	123650.02	123650.03	123650.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/15/13	8/15/13	8/15/13	8/15/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/16/13	8/16/13	8/16/13	8/16/13					
Aluminum	**0.19**	**0.13**	< 0.05	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	**0.046**	**0.015**	**0.19**	**0.020**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.061**	**0.045**	**0.028**	**0.12**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**40**	**42**	**25**	**38**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	**0.002**	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	**0.009**	< 0.001	**0.010**	**0.002**	AqTot	mg/L	8/21/13	200.8	DS
Iron	**23**	**25**	**16**	**10**	AqTot	mg/L	8/21/13	200.8	DS
Lead	**0.001**	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**11**	**11**	**9.0**	**24**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**1.3**	**1.7**	**0.81**	**1.2**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.008**	**0.002**	**0.017**	**0.008**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**7.4**	**8.5**	**14**	**10**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	**0.002**	**0.002**	**0.002**	**0.006**	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**18**	**32**	**32**	**150**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	**0.007**	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS

QC REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	11 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.2 (118 %R)		mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	0.99 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	1.0 (105 %R)		mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	11 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.91 (91 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.93 (93 %R)		mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	11 (98 %R)		mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (110 %R)		mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	10 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (104 %R)		mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (109 %R)		mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.0 (104 %R)		mg/L	8/21/13	85 - 115	20	200.8

The laboratory control sample for Antimony did not meet the acceptance criteria. The high bias has no impact on the data reported as no Antimony was found in any of the samples.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123650**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123649.06	< 0.05	8.5 (77 %R)	8.4 (76 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123649.06	< 0.001	1.2 (117 %R)	1.2 (119 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123649.06	0.14	1.1 (95 %R)	1.1 (95 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123649.06	0.064	1.0 (97 %R)	1.0 (98 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123649.06	< 0.001	0.77 (77 %R)	0.79 (79 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123649.06	35	45 (88 %R)	44 (84 %R) (5 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123649.06	< 0.001	0.95 (95 %R)	0.96 (96 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123649.06	0.003	0.77 (77 %R)	0.77 (77 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123649.06	< 0.001	0.80 (80 %R)	0.79 (79 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123649.06	0.003	0.74 (73 %R)	0.75 (75 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123649.06	18	28 (87 %R)	28 (85 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123649.06	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123649.06	16	24 (75 %R)	24 (73 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123649.06	0.84	1.6 (80 %R)	1.7 (82 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123649.06	< 0.0001	0.0010 (101 %R)	0.0011 (105 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123649.06	0.006	0.72 (72 %R)	0.74 (73 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123649.06	16	25 (78 %R)	24 (75 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123649.06	0.003	0.95 (94 %R)	0.97 (97 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123649.06	< 0.001	0.73 (73 %R)	0.72 (72 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123649.06	63	73 (90 %R)	73 (89 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123649.06	< 0.001	0.98 (98 %R)	0.99 (99 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123649.06	< 0.005	0.80 (80 %R)	0.81 (81 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123649.06	< 0.005	0.77 (77 %R)	0.79 (79 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
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*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

123650

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 BTEX 524.2 MTBE ONLY	VOC: 8260B 624 VTICS 1,4 DIOXANE	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.	INORGANICS: BR CL F SO_4 NO_2 NO_3 NO_2NO_3	INORGANICS: BOD CBOD T. ALK.	INORGANICS: TKN NH_3 T. PHOS. O. PHOS.	INORGANICS: pH T. RES. CHLORINE	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM	MICRO: ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: TAL Metals	OTHER: 1,4 Dioxane SIM	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
GW-MW-9-0813	8/15/13 1445																										X	X		5	
GW-MW-10-0813	8/15/13 1145																										X			2	
GW-AE-2A-0813	8/15/13 1352				X																						X	X		2	
GW-AE-2B-0813	8/15/13 1256				X																						Y	Y		6	only two VOC
TRIP BLANK	8/15/13 1145																											X		2	
Trip Blank	8/15/13 1145				X																									2	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER					H																					N	X			
PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH																															

PROJECT MANAGER: Steve Marcotte

COMPANY: Summit Env.

ADDRESS: 640 Main Street

CITY: Lewiston STATE: ME ZIP: 04240

PHONE: 207-795-6009 EXT.:

FAX:

E-MAIL: Smarcotte@summitenv.com

SITE NAME: Cowtley Landfill

PROJECT #: 12-3173

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: Superfund

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C SPECIAL

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS: YES OR NO; IF YES: FAX OR PDF

ELECTRONIC OPTIONS: NO FAX E-MAIL PDF EQUIS

TEMP. 1 °C ICE? YES NO

SAMPLER(S): Sue Tverring

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Sue Tverring	8/15/13	1700	Steve Marcotte
Steve Marcotte	8/16/13	13:53	Jim Coe
Jim Coe	8-16-13	1515	

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

SAMPLES FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
TRIP BLANKS
8260B 7/29/13 7:40
1,4D 6/20/13 14:20
ENV PREPPED

PA - 8/30/13

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

123650
C Level Package Data

123650
VOC 8260B
Initial Calibration

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- ~~4092 (New ...)~~ 4085 (L) 4084 (G)

Analyst: [signature]

Date: ~~8/19/13~~ 8/19/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA081901	BFB25ng					VOCMS	5L1D0819			
2		0.2					VOCMS	5V1D0819	Used for BFB - Auto Find		✓
3		0.5					VOCMS				
4		1					VOCMS				
5		BFB25ng					VOCMS		Average entire peak		✓
6		2					VOCMS				
7		5					VOCMS				
8		10					VOCMS				
9		20					VOCMS				
10		50					VOCMS				
11		50G					VOCMS				
12		100					VOCMS				
13		100G					VOCMS				
14		200					VOCMS				
15		200G					VOCMS				
16		300					VOCMS				
17		300G					VOCMS				
18		400G					VOCMS				
19		600G					VOCMS				
20		Blank					VOCMS				
21							VOCMS				
22							VOCMS				
23		LCS20					VOCMS				
							VOCMS				
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							VOCMS				

Samples removed from autosampler, order and pH verified by N/A [signature] 8/20/13 1-23

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD
1)	Fluorobenzene IS																			
2)	dichlorodifluoromethane	NA	NA	0.380	0.322	0.329	0.315	0.294	NA	0.316	NA	0.322	NA	0.304	NA	0.286	NA	NA	0.319	8.388 ok
3) P	chloromethane	NA	NA	0.358	0.306	0.300	0.278	0.260	NA	0.275	NA	0.270	NA	0.261	NA	0.250	NA	NA	0.284	11.707 ok
4) C	vinyl chloride	0.201	0.162	0.175	0.151	0.144	0.135	0.122	NA	0.132	NA	0.123	NA	NA	NA	NA	NA	NA	0.149	17.498 #
5)	bromomethane	NA	NA	0.150	0.126	0.127	0.139	0.142	NA	0.168	NA	0.179	NA	0.174	NA	0.162	NA	NA	0.152	13.081 ok
6)	chloroethane	NA	NA	0.208	0.182	0.183	0.174	0.165	NA	0.180	NA	0.174	NA	0.163	NA	0.148	NA	NA	0.175	9.504 ok
7)	trichlorofluoromethane	NA	NA	0.440	0.377	0.390	0.375	0.357	NA	0.385	NA	0.378	NA	0.353	NA	0.326	NA	NA	0.376	8.269 ok
8)	diethyl ether	NA	NA	0.230	0.199	0.204	0.197	0.187	NA	0.200	NA	0.198	NA	0.184	NA	0.172	NA	NA	0.197	8.095 ok
9)	1,1,2-Trichlorotrifluoroethane	NA	NA	0.315	0.268	0.265	0.255	0.246	NA	0.262	NA	0.258	NA	0.242	NA	0.220	NA	NA	0.259	9.937 ok
10)	acrolein	NA	NA	NA	NA	0.025	0.022	0.021	NA	0.020	NA	0.020	NA	0.019	NA	0.018	NA	NA	0.021	10.811 ok
11)	acetone	NA	NA	NA	0.073	0.064	0.062	0.058	NA	0.060	NA	0.060	NA	0.056	NA	0.053	NA	NA	0.061	9.970 ok
12) C	1,1-dichloroethene	0.328	0.260	0.257	0.249	0.229	0.239	0.243	0.241	NA	0.226	NA	0.232	NA	0.217	NA	NA	NA	0.247	12.059 ok
13)	tert-Butyl Alcohol(TBA)	NA	NA	0.024	0.023	0.021	0.021	0.021	0.021	NA	0.020	NA	0.021	NA	0.020	NA	NA	NA	0.021	7.080 ok
14)	Iodomethane	NA	NA	0.169	0.163	0.223	0.260	0.277	NA	0.350	NA	0.360	NA	0.350	NA	0.325	NA	NA	0.275	28.075 #
15)	methylene chloride	NA	NA	0.293	0.307	0.267	0.266	0.266	0.260	NA	0.240	NA	0.239	NA	0.219	NA	NA	NA	0.262	10.345 ok
16)	carbon disulfide	NA	NA	0.962	0.812	0.697	0.710	0.726	0.732	NA	0.702	NA	0.706	NA	0.645	NA	NA	NA	0.744	12.483 ok
17)	acrylonitrile	NA	NA	0.132	0.112	0.111	0.110	0.103	NA	0.106	NA	0.105	NA	0.101	NA	0.096	NA	NA	0.108	9.409 ok
18)	Methyl-t-butyl ether(MTBE)	0.895	0.724	0.760	0.692	0.675	0.685	0.665	NA	0.689	NA	0.684	NA	0.667	NA	0.625	0.617	0.588	0.690	11.060 ok
19)	trans-1,2-dichloroethene	NA	NA	0.265	0.274	0.255	0.266	0.272	0.275	NA	0.260	NA	0.271	NA	0.261	NA	NA	NA	0.267	2.532 ok
20)	hexane	NA	NA	0.479	0.410	0.418	0.393	0.391	NA	0.420	NA	0.426	NA	0.400	NA	0.374	NA	NA	0.413	7.280 ok
21)	Isopropyl ether(DIPE)	NA	NA	0.950	0.957	0.895	0.928	0.944	0.958	NA	0.897	NA	0.923	NA	0.874	NA	NA	NA	0.925	3.299 ok
22)	vinyl acetate	NA	NA	0.533	0.456	0.453	0.431	0.472	NA	0.520	NA	0.531	NA	0.496	NA	0.378	NA	NA	0.475	10.826 ok
23) P	1,1-dichloroethane	NA	NA	0.506	0.498	0.471	0.494	0.503	0.503	NA	0.476	NA	0.493	NA	0.477	NA	NA	NA	0.491	2.711 ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
24)	Ethyl-t-butyl ether(ETBE)	NA	NA	0.838	0.836	0.786	0.817	0.827	0.843	NA	0.793	NA	0.823	NA	0.792	NA	NA	NA	0.817	2.656	ok
25)	2,2-dichloropropane	NA	NA	0.359	0.373	0.354	0.362	0.392	0.395	NA	0.362	NA	0.390	NA	0.360	NA	NA	NA	0.372	4.330	ok
26)	cis-1,2-dichloroethene	NA	NA	0.370	0.400	0.379	0.386	0.396	0.398	NA	0.374	NA	0.386	NA	0.369	NA	NA	NA	0.384	3.153	ok
27)	2-butanone(MEK)	NA	NA	0.141	0.119	0.111	0.107	0.100	NA	0.110	NA	0.110	NA	0.106	NA	0.103	NA	NA	0.112	10.926	ok
28)	bromochloromethane	NA	NA	0.140	0.143	0.133	0.141	0.141	0.146	NA	0.139	NA	0.146	NA	0.141	NA	NA	NA	0.141	2.824	ok
29)	Tetrahydrofuran(THF)	NA	NA	NA	0.087	0.079	0.075	0.070	NA	0.075	NA	0.075	NA	0.073	NA	0.070	NA	NA	0.075	7.386	ok
30) C	chloroform	NA	NA	0.499	0.487	0.454	0.473	0.479	0.483	NA	0.457	NA	0.476	NA	0.460	NA	NA	NA	0.474	3.170	ok
31)	SS Dibromofluoromethane_MS	0.232	0.234	0.236	0.236	0.238	0.239	0.239	0.239	0.236	0.241	0.237	0.236	0.236	0.240	0.231	0.232	0.224	0.236	1.748	ok
32)	1,1,1-trichloroethane	NA	NA	0.389	0.397	0.377	0.392	0.406	0.413	NA	0.392	NA	0.411	NA	0.391	NA	NA	NA	0.396	2.964	ok
33)	carbon tetrachloride	NA	NA	0.314	0.312	0.301	0.330	0.350	0.367	NA	0.353	NA	0.372	NA	0.353	NA	NA	NA	0.339	7.584	ok
34)	1,1-dichloropropene	NA	NA	0.403	0.403	0.374	0.388	0.399	0.401	NA	0.380	NA	0.394	NA	0.372	NA	NA	NA	0.391	3.194	ok
35)	SS 1,2-DCA-d4_MS	0.291	0.293	0.295	0.294	0.293	0.290	0.281	0.274	0.290	0.266	0.289	0.259	0.283	0.255	0.276	0.279	0.274	0.281	4.428	ok
36)	tert-amyl methyl ether(TAME)	NA	NA	0.718	0.710	0.677	0.706	0.719	0.744	NA	0.709	NA	0.748	NA	0.726	NA	NA	NA	0.717	2.970	ok
37)	benzene	NA	NA	1.171	1.176	1.101	1.132	1.151	1.161	NA	1.088	NA	1.096	NA	0.995	NA	NA	NA	1.119	5.096	ok
38)	1,2-dichloroethane	NA	NA	0.403	0.411	0.382	0.392	0.392	0.390	NA	0.359	NA	0.354	NA	0.324	NA	NA	NA	0.378	7.316	ok
39)	trichloroethene	0.381	0.317	0.301	0.294	0.282	0.294	0.294	0.300	NA	0.286	NA	0.295	NA	0.281	NA	NA	NA	0.302	9.199	ok
40) C	1,2-dichloropropane	NA	NA	0.278	0.281	0.271	0.280	0.288	0.293	NA	0.278	NA	0.290	NA	0.276	NA	NA	NA	0.282	2.551	ok
41)	1,4-dioxaneV	NA	NA	NA	NA	0.003	0.003	0.003	NA	0.003	NA	0.003	NA	0.003	NA	0.003	0.003	0.003	0.003	5.838	ok
42)	dibromomethane	NA	NA	0.158	0.162	0.151	0.158	0.161	0.167	NA	0.160	NA	0.166	NA	0.158	NA	NA	NA	0.160	2.910	ok
43)	bromodichloromethane	0.403	0.308	0.296	0.302	0.296	0.325	0.342	0.363	NA	0.348	NA	0.366	NA	0.352	NA	NA	NA	0.336	10.244	ok
44)	2-Chloroethoxyethene	NA	NA	0.022	0.013	0.019	0.019	0.027	NA	0.041	NA	0.061	NA	0.081	NA	0.089	NA	NA	0.041	69.330	#
45)	4-methyl-2-pentanone(MIBK)	NA	NA	0.095	0.080	0.084	0.086	0.082	NA	0.092	NA	0.094	NA	0.091	NA	0.089	NA	NA	0.088	5.866	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
46)	cis-1,3-dichloropropene	0.460	0.374	0.359	0.367	0.362	0.394	0.418	0.438	NA	0.419	NA	0.441	NA	0.418	NA	NA	NA	0.404	8.694	ok
47)	Chlorobenzene-D5 IS																				
48)	SS Toluene-d8_MS	1.289	1.271	1.281	1.276	1.265	1.270	1.272	1.257	1.284	1.269	1.287	1.254	1.268	1.247	1.268	1.258	1.252	1.269	0.971	ok
49) C	toluene	NA	NA	1.644	1.637	1.524	1.591	1.610	1.619	NA	1.492	NA	1.446	NA	1.254	NA	NA	NA	1.535	8.202	ok
50)	trans-1,3-dichloropropene	0.547	0.412	0.418	0.415	0.418	0.467	0.498	0.530	NA	0.502	NA	0.521	NA	0.477	NA	NA	NA	0.473	10.709	ok
51)	1,1,2-trichloroethane	NA	NA	0.248	0.244	0.233	0.245	0.245	0.252	NA	0.238	NA	0.248	NA	0.230	NA	NA	NA	0.242	3.010	ok
52)	2-hexanone	NA	NA	0.220	0.183	0.194	0.193	0.182	NA	0.201	NA	0.201	NA	0.195	NA	0.186	NA	NA	0.195	6.012	ok
53)	tetrachloroethene	0.531	0.419	0.434	0.428	0.399	0.414	0.418	0.427	NA	0.405	NA	0.408	NA	0.368	NA	NA	NA	0.423	9.501	ok
54)	1,3-dichloropropane	0.722	0.532	0.530	0.530	0.498	0.526	0.526	0.535	NA	0.500	NA	0.514	NA	0.469	NA	NA	NA	0.535	12.201	ok
55)	dibromochloromethane	NA	NA	0.236	0.242	0.254	0.289	0.317	0.348	NA	0.341	NA	0.361	NA	0.337	NA	NA	NA	0.303	16.103	#
56)	1,2-dibromoethane	NA	NA	0.297	0.297	0.286	0.306	0.311	0.324	NA	0.308	NA	0.318	NA	0.299	NA	NA	NA	0.305	3.811	ok
57) P	chlorobenzene	NA	NA	1.105	1.102	1.036	1.074	1.096	1.101	NA	1.019	NA	0.996	NA	0.866	NA	NA	NA	1.044	7.465	ok
58)	1,1,1,2-tetrachloroethane	NA	NA	0.305	0.303	0.302	0.336	0.351	0.364	NA	0.337	NA	0.307	NA	0.256	NA	NA	NA	0.318	10.272	ok
59) C	ethylbenzene	NA	NA	1.877	1.868	1.750	1.833	1.860	1.848	NA	1.647	NA	1.395	NA	NA	NA	NA	NA	1.760	9.477	ok
60)	mp-xylene	0.953	0.754	0.742	0.742	0.706	0.738	0.747	0.740	NA	0.640	NA	0.515	NA	NA	NA	NA	NA	0.728	14.899	ok
61)	o-xylene	NA	NA	0.700	0.721	0.669	0.713	0.725	0.734	NA	0.673	NA	0.638	NA	0.542	NA	NA	NA	0.679	8.882	ok
62)	styrene	NA	NA	1.115	1.151	1.109	1.184	1.221	1.232	NA	1.133	NA	1.049	NA	0.884	NA	NA	NA	1.120	9.404	ok
63) P	bromoform	NA	NA	0.122	0.122	0.132	0.159	0.183	0.214	NA	0.215	NA	0.232	NA	0.215	NA	NA	NA	0.177	24.884	#
64)	iso-propylbenzene	NA	NA	1.668	1.719	1.621	1.709	1.749	1.749	NA	1.590	NA	1.455	NA	1.218	NA	NA	NA	1.609	10.808	ok
65)	SS 4-BFB_MS	0.496	0.492	0.498	0.494	0.499	0.500	0.501	0.499	0.495	0.500	0.491	0.491	0.493	0.495	0.501	0.501	0.497	0.497	0.720	ok
66)	1,4-Dichlorobenzene-D4 IS																				
67)	bromobenzene	NA	NA	0.862	0.865	0.806	0.847	0.860	0.871	NA	0.821	NA	0.821	NA	0.750	NA	NA	NA	0.834	4.692	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
68) P	1,1,2,2-tetrachloroethane	NA	NA	0.652	0.664	0.627	0.661	0.693	0.711	NA	0.666	NA	0.686	NA	0.625	NA	NA	NA	0.665	4.303	ok
69)	1,2,3-trichloropropane	NA	NA	0.224	0.218	0.204	0.213	0.214	0.221	NA	0.207	NA	0.212	NA	0.197	NA	NA	NA	0.212	4.052	ok
70)	trans-1,4-dichloro-2-butene	NA	NA	0.096	0.100	0.100	0.118	0.136	0.151	NA	0.151	NA	0.162	NA	0.150	NA	NA	NA	0.129	20.297	#
71)	n-propylbenzene	NA	NA	4.020	4.143	3.881	4.006	4.112	4.062	NA	3.702	NA	3.288	NA	2.706	NA	NA	NA	3.769	12.728	ok
72)	2-chlorotoluene	NA	NA	2.526	2.563	2.390	2.437	2.480	2.440	NA	2.294	NA	2.095	NA	1.864	NA	NA	NA	2.343	9.720	ok
73)	4-chlorotoluene	NA	NA	2.569	2.586	2.424	2.490	2.528	2.503	NA	2.221	NA	2.086	NA	1.736	NA	NA	NA	2.349	12.101	ok
74)	1,3,5-trimethylbenzene	NA	NA	2.836	2.900	2.735	2.850	2.895	2.894	NA	2.646	NA	2.386	NA	2.001	NA	NA	NA	2.682	11.373	ok
75)	tert-butylbenzene	NA	NA	2.520	2.592	2.414	2.510	2.559	2.538	NA	2.315	NA	2.157	NA	1.820	NA	NA	NA	2.381	10.582	ok
76)	1,2,4-trimethylbenzene	NA	NA	2.926	2.958	2.833	2.944	2.981	2.964	NA	2.669	NA	2.366	NA	1.964	NA	NA	NA	2.734	12.853	ok
77)	sec-butylbenzene	NA	NA	3.526	3.629	3.399	3.547	3.614	3.615	NA	3.268	NA	2.861	NA	2.346	NA	NA	NA	3.312	13.205	ok
78)	1,3-dichlorobenzeneV	NA	NA	1.646	1.696	1.572	1.642	1.681	1.692	NA	1.570	NA	1.458	NA	1.245	NA	NA	NA	1.578	9.274	ok
79)	p-isopropyltoluene	NA	NA	2.949	3.015	2.895	3.052	3.140	3.122	NA	2.803	NA	2.453	NA	2.015	NA	NA	NA	2.827	13.062	ok
80)	1,4-dichlorobenzeneV	NA	NA	1.655	1.695	1.575	1.633	1.672	1.688	NA	1.566	NA	1.454	NA	1.230	NA	NA	NA	1.574	9.536	ok
81)	1,2-dichlorobenzeneV	NA	NA	1.538	1.582	1.463	1.517	1.554	1.575	NA	1.460	NA	1.371	NA	1.177	NA	NA	NA	1.471	8.788	ok
82)	n-butylbenzene	NA	NA	2.440	2.547	2.443	2.579	2.671	2.665	NA	2.409	NA	2.136	NA	1.748	NA	NA	NA	2.404	12.262	ok
83)	SS 1,2-DCB-d4_MS	1.004	0.999	1.000	0.993	1.002	0.992	1.002	1.000	1.003	1.011	1.001	0.995	0.997	0.979	0.991	1.000	1.002	0.998	0.699	ok
84)	1,2-dibromo-3-chloropropane	NA	NA	0.091	0.094	0.095	0.114	0.125	0.143	NA	0.142	NA	0.149	NA	0.143	NA	NA	NA	0.122	19.514	#
85)	1,3,5-trichlorobenzV	NA	NA	0.917	0.922	0.874	0.929	0.966	0.998	NA	0.955	NA	0.949	NA	0.850	NA	NA	NA	0.929	4.939	ok
86)	1,2,4-trichlorobenzV	NA	NA	0.740	0.763	0.721	0.786	0.808	0.852	NA	0.815	NA	0.828	NA	0.765	NA	NA	NA	0.786	5.470	ok
87)	hexachlorobutadieneV	0.453	0.336	0.325	0.334	0.308	0.335	0.351	0.365	NA	0.353	NA	0.371	NA	0.345	NA	NA	NA	0.352	10.764	ok
88)	naphthaleneV	NA	NA	1.784	1.830	1.828	2.015	2.094	2.226	NA	2.103	NA	2.089	NA	1.889	NA	NA	NA	1.984	7.844	ok
89)	1,2,3-trichlorobenzV	NA	NA	0.649	0.651	0.626	0.665	0.694	0.728	NA	0.698	NA	0.716	NA	0.675	NA	NA	NA	0.678	4.937	ok
90)	SS 2,5-DBT_MS	NA	NA	0.132	0.142	0.158	0.184	0.203	0.232	NA	0.230	NA	0.251	NA	0.250	NA	NA	NA	0.198	23.351	#

(#) = Out of Range

Compound List Report VOAMS5

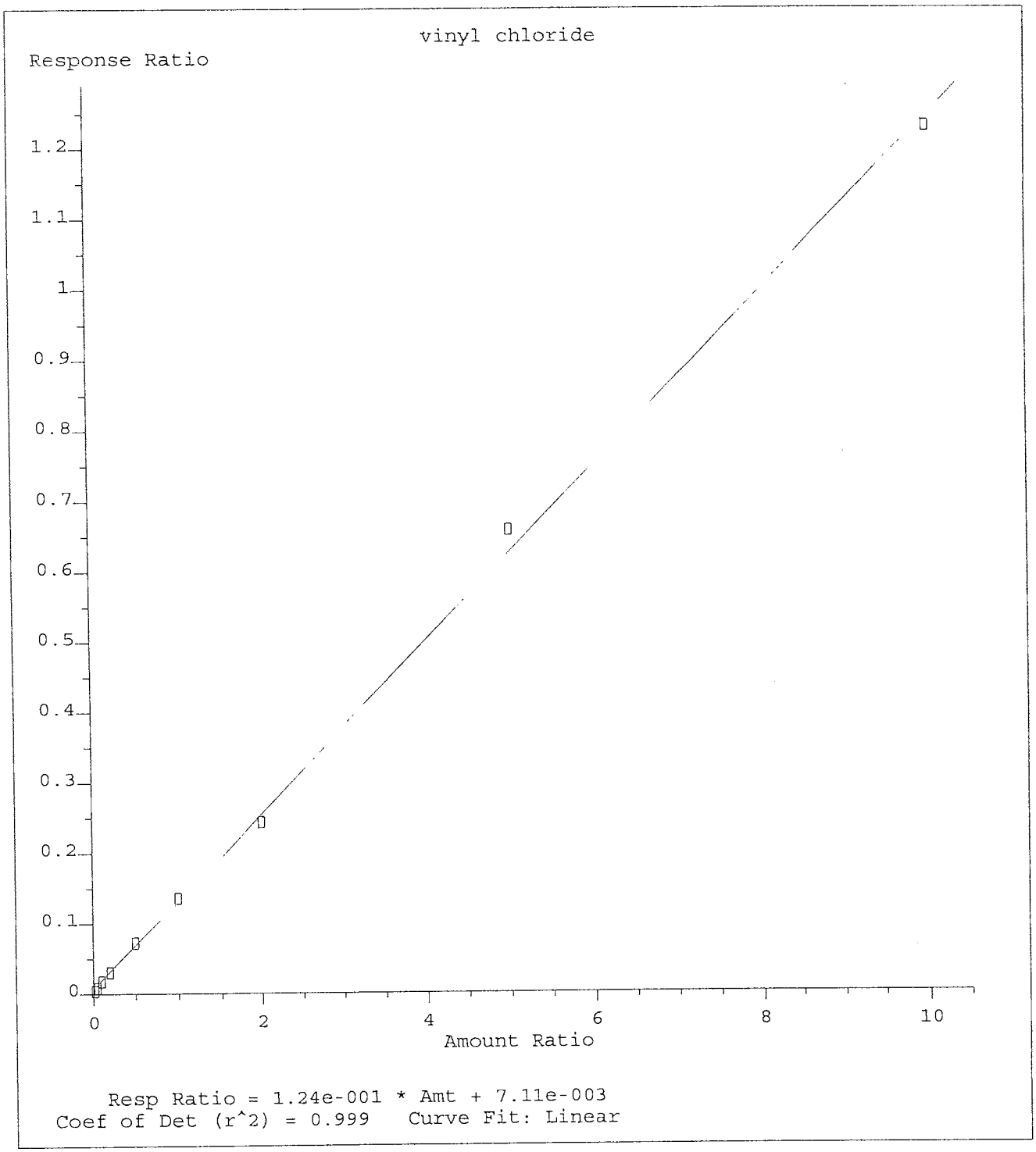
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
Total Cpnds : 90

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID	
1	I	Fluorobenzene IS	96	11.99	1.000	A	2	A	B	
2		dichlorodifluoromethane	85	2.84	0.237	A	2	A	B	
3	P	chloromethane	50	3.19	0.266	A	1	A	B	
4	C	vinyl chloride	62	3.33	0.277	L	1	A	B	
5		bromomethane	94	3.98	0.331	A	2	A	B	
6		chloroethane	64	4.09	0.341	A	2	A	B	
7		trichlorofluoromethane	101	4.50	0.376	A	2	A	B	
8		diethyl ether	59	5.02	0.419	A	2	A	B	
9		1,1,2-Trichlorotrifluoroethane	101	5.26	0.438	A	2	A	B	
10		acrolein	56	5.27	0.439	A	1	A	B	
11		acetone	43	5.41	0.451	A	1	A	B	
12	CM	1,1-dichloroethene	96	5.60	0.467	A	3	A	B	
13		tert-Butyl Alcohol(TBA)	59	5.78	0.482	A	1	A	B	
14		Iodomethane	142	6.20	0.517	L	3	A	B	Nontarget
15		methylene chloride	84	6.54	0.546	A	2	A	B	
16		carbon disulfide	76	6.56	0.547	A	1	A	B	
17		acrylonitrile	53	6.83	0.569	A	2	A	B	
18		Methyl-t-butyl ether(MTBE)	73	6.87	0.572	A	3	A	B	
19		trans-1,2-dichloroethene	96	7.14	0.595	A	3	A	B	
20		hexane	57	7.27	0.606	A	3	A	B	
21		Isopropyl ether(DIPE)	45	7.83	0.652	A	3	A	B	
22		vinyl acetate	43	8.06	0.672	A	1	A	B	
23	P	1,1-dichloroethane	63	8.04	0.670	A	2	A	B	
24		Ethyl-t-butyl ether(ETBE)	59	8.70	0.725	A	3	A	B	
25		2,2-dichloropropane	77	9.25	0.771	A	3	A	B	
26		cis-1,2-dichloroethene	61	9.36	0.780	A	3	A	B	
27		2-butanone(MEK)	43	8.98	0.749	A	2	A	B	
28		bromochloromethane	128	10.08	0.840	A	3	A	B	
29		Tetrahydrofuran(THF)	42	10.16	0.847	A	2	A	B	
30	C	chloroform	83	9.71	0.810	A	2	A	B	
31	S	SS Dibromofluoromethane_MS	111	10.20	0.850	A	2	A	B	
32		1,1,1-trichloroethane	97	10.59	0.883	A	3	A	B	
33		carbon tetrachloride	117	11.17	0.931	A	3	A	B	
34		1,1-dichloropropene	75	10.97	0.914	A	3	A	B	
35	S	SS 1,2-DCA-d4_MS	65	11.33	0.945	A	2	A	B	
36		tert-amyl methyl ether(TAME)	73	11.25	0.938	A	3	A	B	
37	M	benzene	78	11.56	0.964	A	3	A	B	
38		1,2-dichloroethane	62	11.54	0.962	A	2	A	B	
39	M	trichloroethene	95	12.74	1.062	A	3	A	B	
40	C	1,2-dichloropropane	63	13.05	1.088	A	3	A	B	
41		1,4-dioxaneV	88	13.51	1.126	A	2	A	B	
42		dibromomethane	93	13.53	1.128	A	3	A	B	
43		bromodichloromethane	83	13.44	1.121	A	3	A	B	
44		2-Chloroethoxyethene	63	13.95	1.163	Q	3	A	B	Nontarget
45		4-methyl-2-pentanone(MIBK)	58	14.00	1.167	A	3	A	B	
46		cis-1,3-dichloropropene	75	14.31	1.193	A	3	A	B	
47	I	Chlorobenzene-D5 IS	117	16.70	1.000	A	2	A	B	
48	S	SS Toluene-d8_MS	98	14.66	0.878	A	2	A	B	
49	CM	toluene	91	14.78	0.885	A	3	A	B	
50		trans-1,3-dichloropropene	75	15.04	0.900	A	3	A	B	
51		1,1,2-trichloroethane	83	15.25	0.914	A	3	A	B	
52		2-hexanone	43	15.27	0.914	A	2	A	B	
53		tetrachloroethene	166	15.68	0.939	A	3	A	B	
54		1,3-dichloropropane	76	15.60	0.934	A	2	A	B	
55		dibromochloromethane	129	15.96	0.956	L	3	A	B	
56		1,2-dibromoethane	107	16.22	0.972	A	3	A	B	
57	PM	chlorobenzene	112	16.75	1.003	A	2	A	B	
58		1,1,1,2-tetrachloroethane	131	16.79	1.006	A	3	A	B	
59	C	ethylbenzene	91	16.80	1.006	A	3	A	B	
60		mp-xylene	106	16.90	1.012	A	3	A	B	
61		o-xylene	106	17.43	1.044	A	3	A	B	
62		styrene	104	17.47	1.046	A	3	A	B	
63	P	bromoform	173	17.90	1.072	L	3	A	B	
64		iso-propylbenzene	105	17.83	1.068	A	3	A	B	

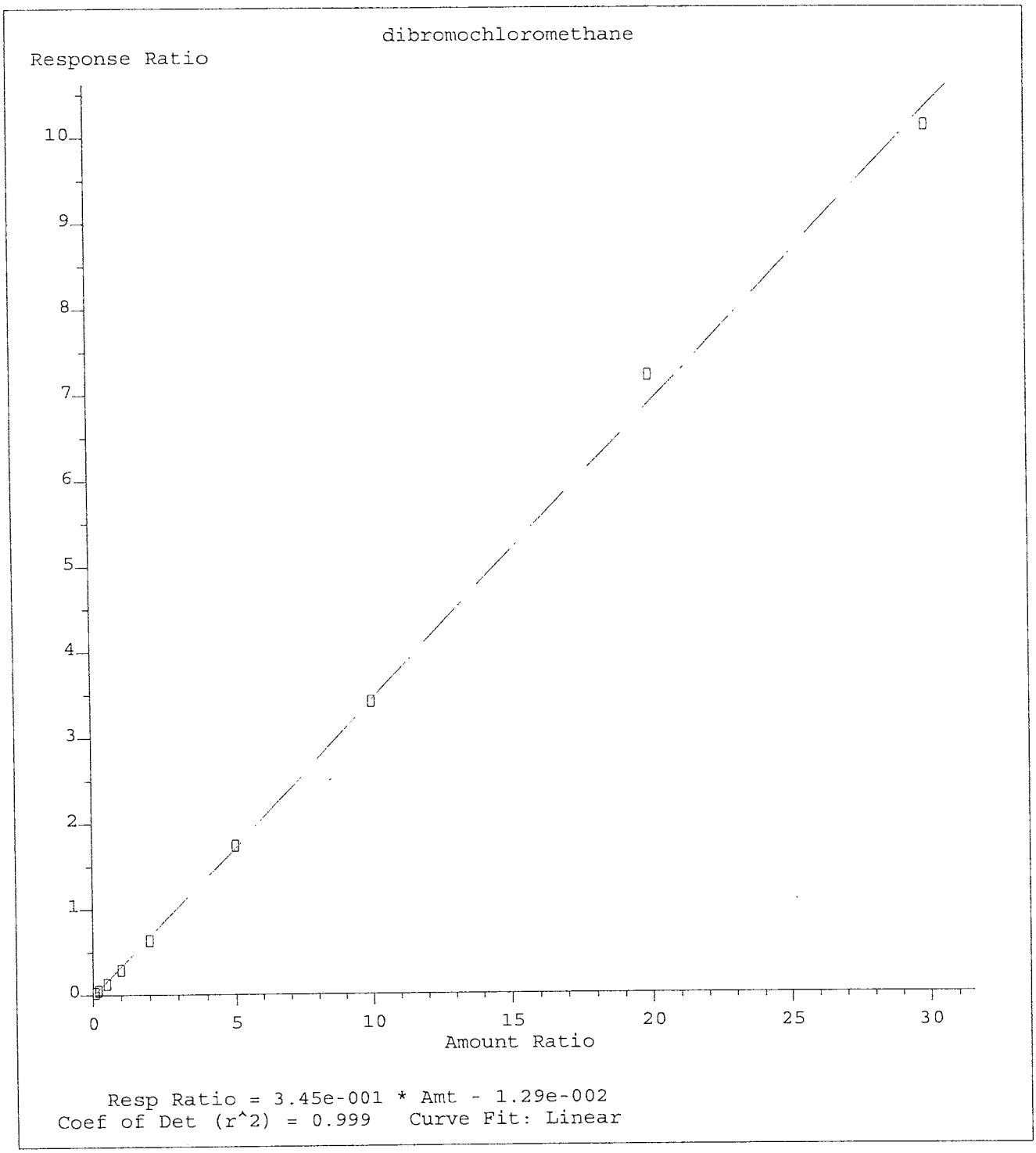
65	S	SS 4-BFB_MS	95	18.14	1.086	A	3	A	B	
66	I	1,4-Dichlorobenzene-D4 IS	152	19.39	1.000	A	3	A	B	
67		bromobenzene	156	18.38	0.948	A	3	A	B	
68	P	1,1,2,2-tetrachloroethane	83	18.04	0.930	A	3	A	B	
69		1,2,3-trichloropropane	110	18.21	0.939	A	3	A	B	
70		trans-1,4-dichloro-2-butene	75	18.28	0.943	L	3	A	B	Nontarget
71		n-propylbenzene	91	18.30	0.943	A	1	A	B	
72		2-chlorotoluene	91	18.52	0.955	A	2	A	B	
73		4-chlorotoluene	91	18.57	0.958	A	2	A	B	
74		1,3,5-trimethylbenzene	105	18.47	0.953	A	3	A	B	
75		tert-butylbenzene	119	18.86	0.972	A	3	A	B	
76		1,2,4-trimethylbenzene	105	18.90	0.975	A	3	A	B	
77		sec-butylbenzene	105	19.07	0.983	A	3	A	B	
78		1,3-dichlorobenzeneV	146	19.33	0.997	A	3	A	B	
79		p-isopropyltoluene	119	19.20	0.990	A	3	A	B	
80		1,4-dichlorobenzeneV	146	19.43	1.002	A	3	A	B	
81		1,2-dichlorobenzeneV	146	19.79	1.020	A	3	A	B	
82		n-butylbenzene	91	19.59	1.010	A	3	A	B	
83	S	SS 1,2-DCB-d4_MS	152	19.76	1.019	A	3	A	B	
84		1,2-dibromo-3-chloropropane	157	20.52	1.058	L	3	A	B	
85		1,3,5-trichlorobenzV	180	20.75	1.070	A	3	A	B	
86		1,2,4-trichlorobenzV	180	21.45	1.106	A	3	A	B	
87		hexachlorobutadieneV	225	21.57	1.113	A	3	A	B	
88		naphthaleneV	128	21.78	1.123	A	3	A	B	
89		1,2,3-trichlorobenzV	180	22.06	1.138	A	3	A	B	
90	S	SS 2,5-DBT_MS	250	23.37	1.205	L	3	A	B	Nontarget

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

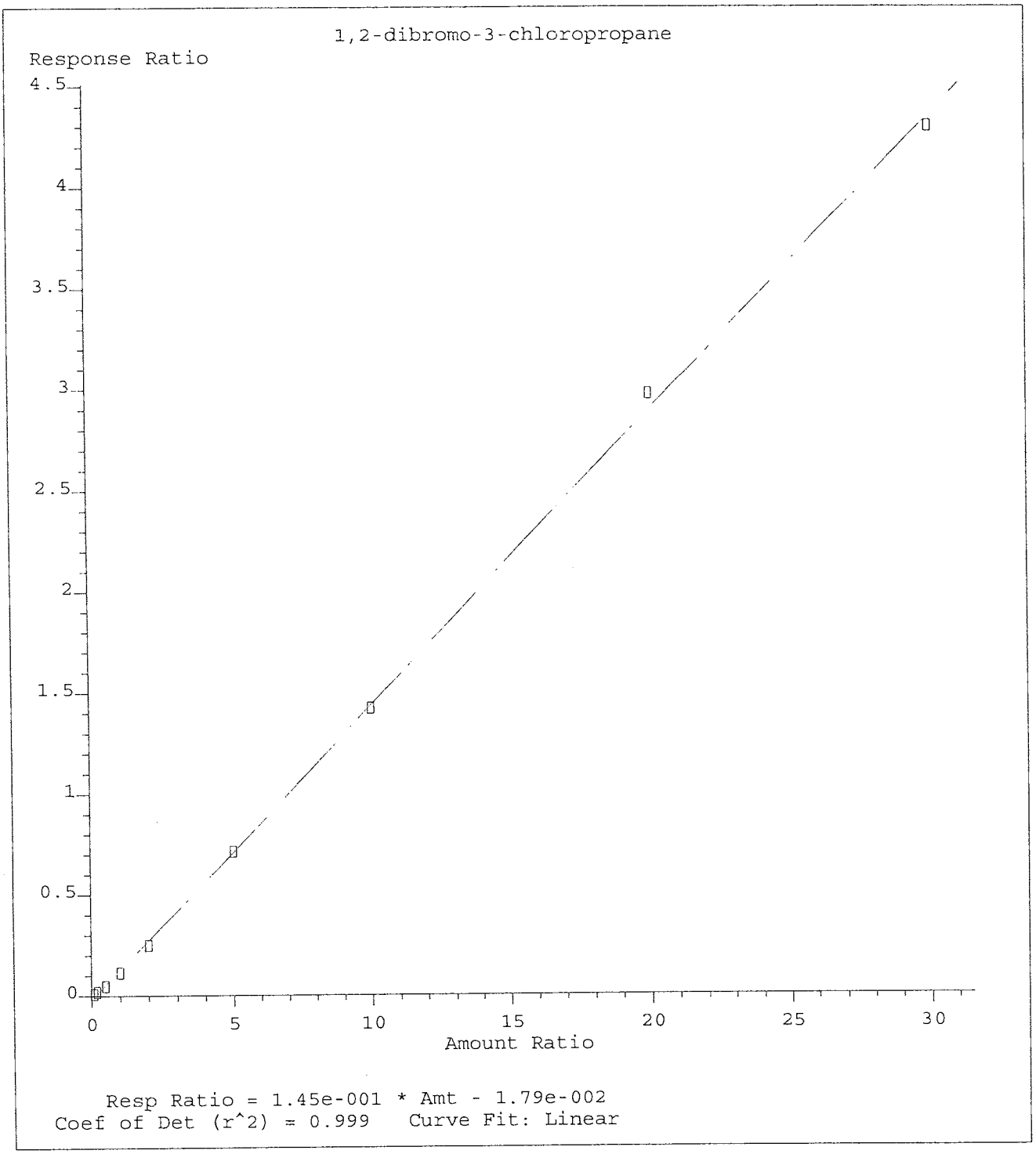
5VID0819.M Fri Aug 23 12:50:23 2013



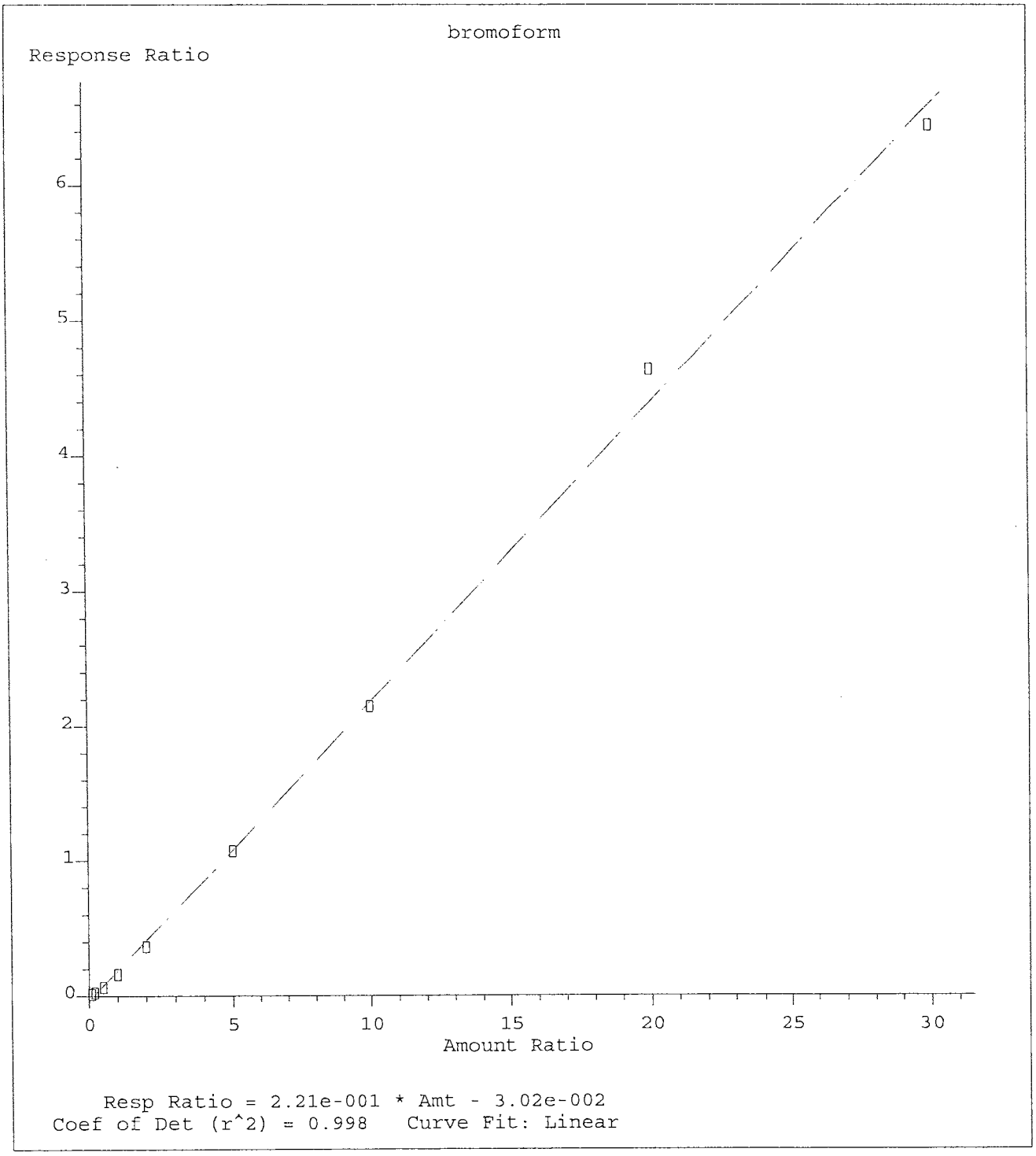
Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

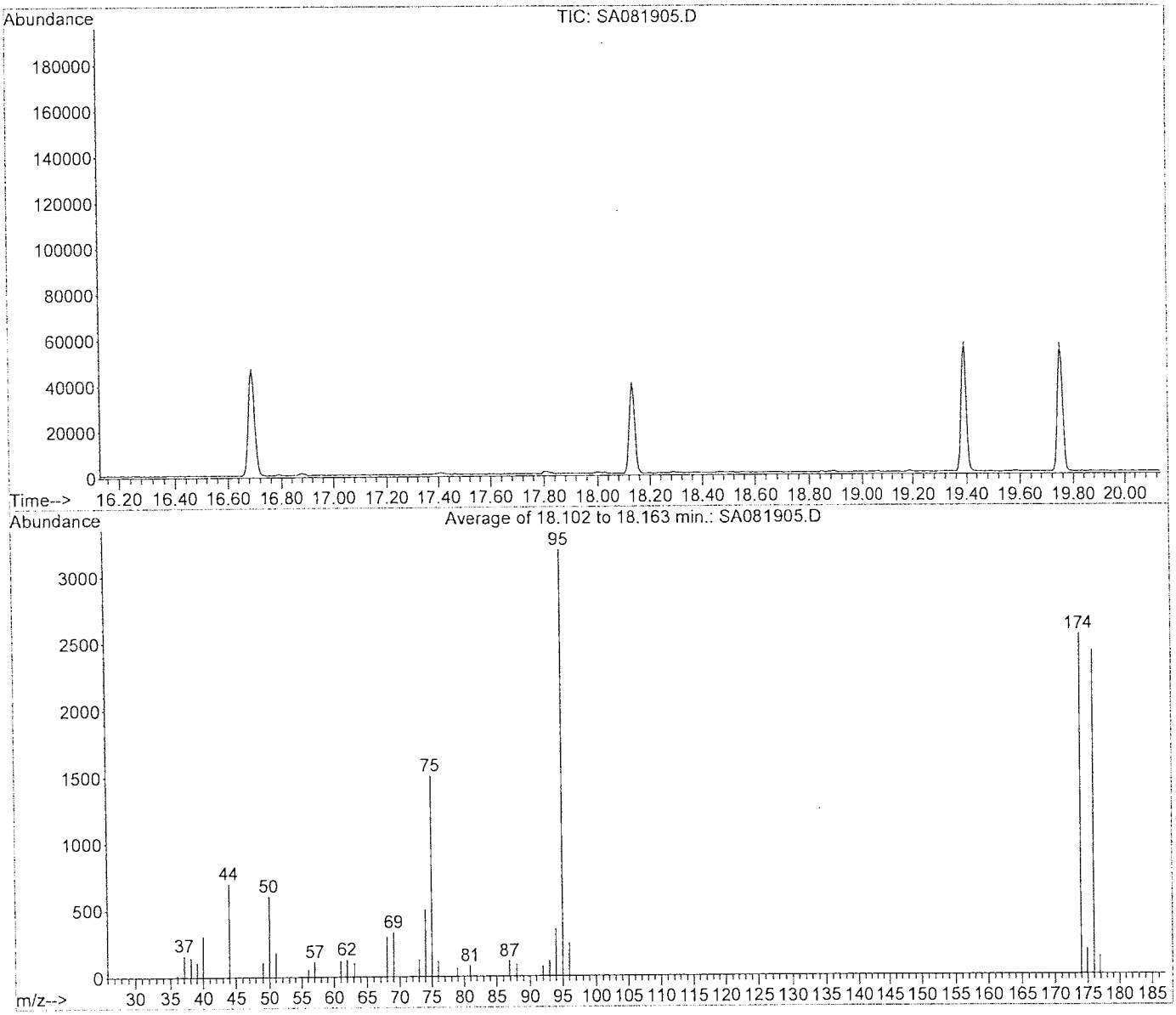


Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081905.D Vial: 5
Acq On : 19 Aug 2013 10:44 am Operator: BAM
Sample : BFB 25 MG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



Spectrum Information: Average of 18.102 to 18.163 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	605	PASS
75	95	30	60	47.1	1503	PASS
95	95	100	100	100.0	3194	PASS
96	95	5	9	7.7	245	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	2543	PASS
175	174	5	9	7.4	188	PASS
176	174	95	101	95.1	2418	PASS
177	176	5	9	5.6	135	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 12:13:37 2013 Quant Results File: 5LID0813.RES

Quant Method : C:\MSDCHEM\1...\5LID0813.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

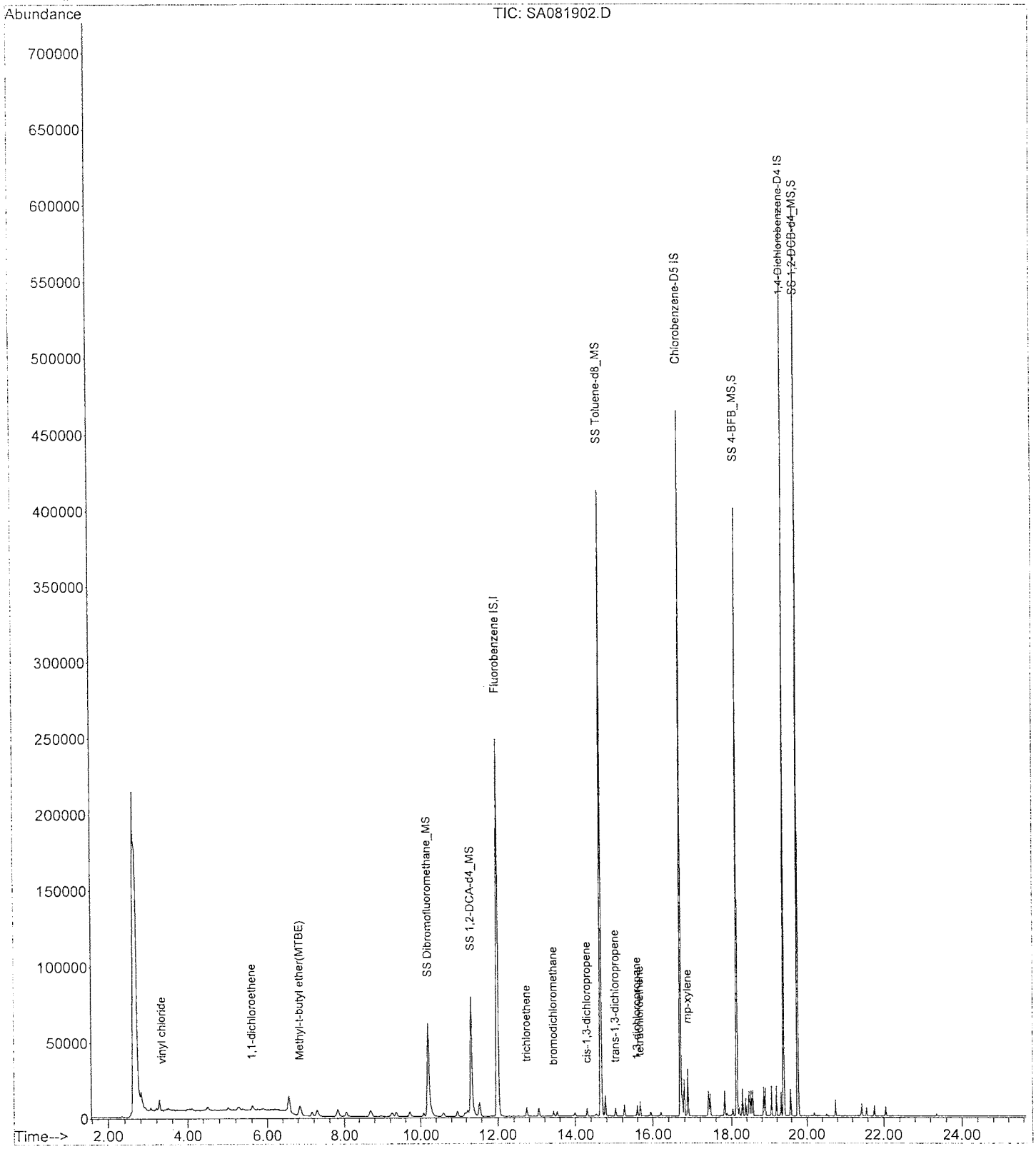
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	329584	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	125297	10.51	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.10%				
78) SS 1,2-DCB-d4_MS	19.75	152	131904	9.23	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.33%				
Target Compounds							Qvalue
4) vinyl chloride	3.34	62	1326	0.353	ug/L		94
11) 1,1-dichloroethene	5.61	96	2165	0.310	ug/L		93
16) Methyl-t-butyl ether(MTBE)	6.85	73	11802	0.703	ug/L		95
29) SS Dibromofluoromethane_MS	10.20	111	76497	9.528	ug/L	#	94
33) SS 1,2-DCA-d4_MS	11.34	65	95920	11.496	ug/L	#	94
37) trichloroethene	12.74	95	2509	0.276	ug/L	#	93
40) bromodichloromethane	13.44	83	2656	0.271	ug/L	#	93
42) cis-1,3-dichloropropene	14.30	75	3030	0.305	ug/L	#	77
43) Chlorobenzene-D5 IS	16.69	117	252752	9.805	ug/L	#	91
44) SS Toluene-d8_MS	14.65	98	325692	10.105	ug/L	#	96
46) trans-1,3-dichloropropene	15.03	75	2763	0.305	ug/L	#	75
49) tetrachloroethene	15.67	166	2685	0.235	ug/L	#	87
50) 1,3-dichloropropane	15.59	76	3650	0.285	ug/L	#	69
56) mp-xylene	16.89	106	9632	0.529	ug/L	#	91
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	131322	9.191	ug/L	#	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:38 2013 Quant Results File: 5LID0813.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:39:16 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

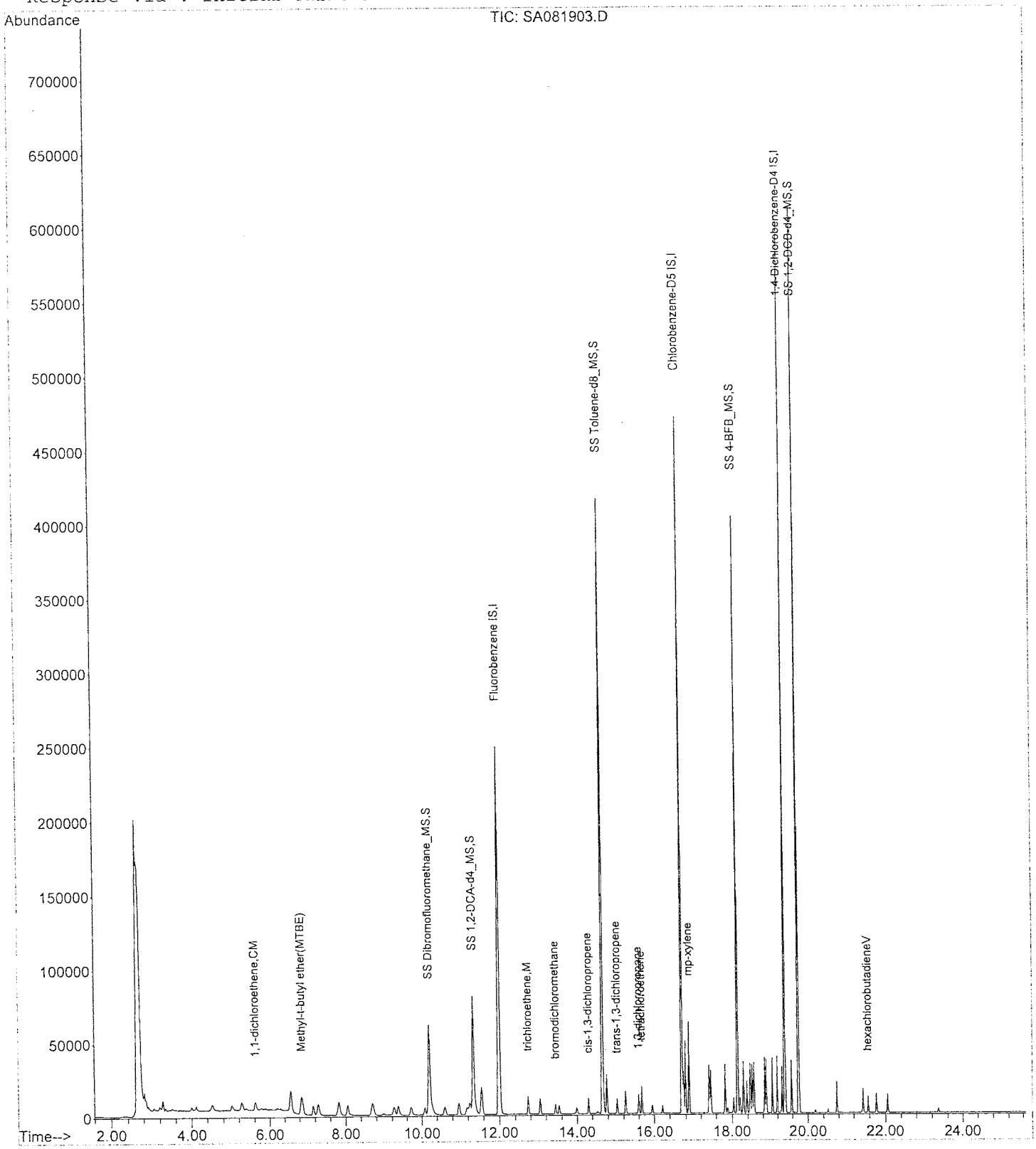
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329809	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	258269	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133996	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	77167	12.17 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.69%#		
35) SS 1,2-DCA-d4_MS	11.33	65	96496	13.01 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.14%#		
48) SS Toluene-d8_MS	14.66	98	328246	12.90 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.04%#		
65) SS 4-BFB_MS	18.13	95	127157	13.22 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.15%#		
83) SS 1,2-DCB-d4_MS	19.75	152	133798	12.67 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.74%#		
90) SS 2,5-DBT_MS	0.00	250	0d	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
4) vinyl chloride	3.34	62	2669	Below Cal	100
12) 1,1-dichloroethene	5.62	96	4286	0.585 ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.86	73	23890	1.478 ug/L #	93
39) trichloroethene	12.73	95	5229	0.667 ug/L	97
43) bromodichloromethane	13.44	83	5080	0.560 ug/L	96
46) cis-1,3-dichloropropene	14.30	75	6172	2.198 ug/L #	91
50) trans-1,3-dichloropropene	15.03	75	5318	1.795 ug/L #	90
53) tetrachloroethene	15.67	166	5406	0.608 ug/L	98
54) 1,3-dichloropropane	15.60	76	6873	0.608 ug/L #	82
60) mp-xylene	16.89	106	19484	1.300 ug/L	97
87) hexachlorobutadieneV	21.56	225	2252	0.579 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331046	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	256587	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135437	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	78237	12.29 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.92%#		
35) SS 1,2-DCA-d4_MS	11.33	65	97737	13.13 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 131.32%#		
48) SS Toluene-d8_MS	14.65	98	328729	13.01 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.07%#		
65) SS 4-BFB_MS	18.13	95	127655	13.35 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.54%#		
83) SS 1,2-DCB-d4_MS	19.75	152	135388	12.69 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.88%#		
90) SS 2,5-DBT_MS	23.36	250	1783	6.00 ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 15.00%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	12564	1.393 ug/L	98
3) chloromethane	3.19	50	11863	1.272 ug/L	100
4) vinyl chloride	3.34	62	5780	Below Cal	98
5) bromomethane	3.99	94	4980	0.936 ug/L	91
6) chloroethane	4.11	64	6898	1.230 ug/L	97
7) trichlorofluoromethane	4.52	101	14555	1.230 ug/L	98
8) diethyl ether	5.03	59	7616	1.328 ug/L	93
9) 1,1,2-Trichlorotrifluoroet	5.27	101	10431	1.490 ug/L #	87
10) acrolein	5.27	56	1636	2.405 ug/L #	70
11) acetone	5.39	43	3086	1.715 ug/L #	69
12) 1,1-dichloroethene	5.61	96	8518	1.159 ug/L	95
13) tert-Butyl Alcohol(TBA)	5.78	59	4046	8.003 ug/L #	81
15) methylene chloride	6.55	84	9698	1.177 ug/L	98
16) carbon disulfide	6.57	76	31835	1.499 ug/L #	94
17) acrylonitrile	6.82	53	4377	1.564 ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	50348	3.102 ug/L	94
19) trans-1,2-dichloroethene	7.15	96	8789	1.252 ug/L	96
20) hexane	7.29	57	15861	1.856 ug/L	94
21) Isopropyl ether(DIPE)	7.81	45	31465	1.457 ug/L	98
22) vinyl acetate	8.05	43	17655	1.502 ug/L	96
23) 1,1-dichloroethane	8.05	63	16758	1.290 ug/L #	95
24) Ethyl-t-butyl ether(ETBE)	8.70	59	27729	1.563 ug/L	98
25) 2,2-dichloropropane	9.24	77	11874	1.446 ug/L	99
26) cis-1,2-dichloroethene	9.36	61	12247	1.211 ug/L	95
27) 2-butanone(MEK)	8.98	43	4672	1.802 ug/L #	91
28) bromochloromethane	10.08	128	4642	1.212 ug/L	99
29) Tetrahydrofuran(THF)	10.18	42	3670	2.189 ug/L #	85
30) chloroform	9.71	83	16503	1.284 ug/L	99
32) 1,1,1-trichloroethane	10.60	97	12866	1.269 ug/L	99
33) carbon tetrachloride	11.17	117	10403	1.147 ug/L	98
34) 1,1-dichloropropene	10.96	75	13340	1.339 ug/L	92
36) tert-amyl methyl ether(TAM	11.24	73	23753	5.976 ug/L #	89
37) benzene	11.55	78	38760	1.241 ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

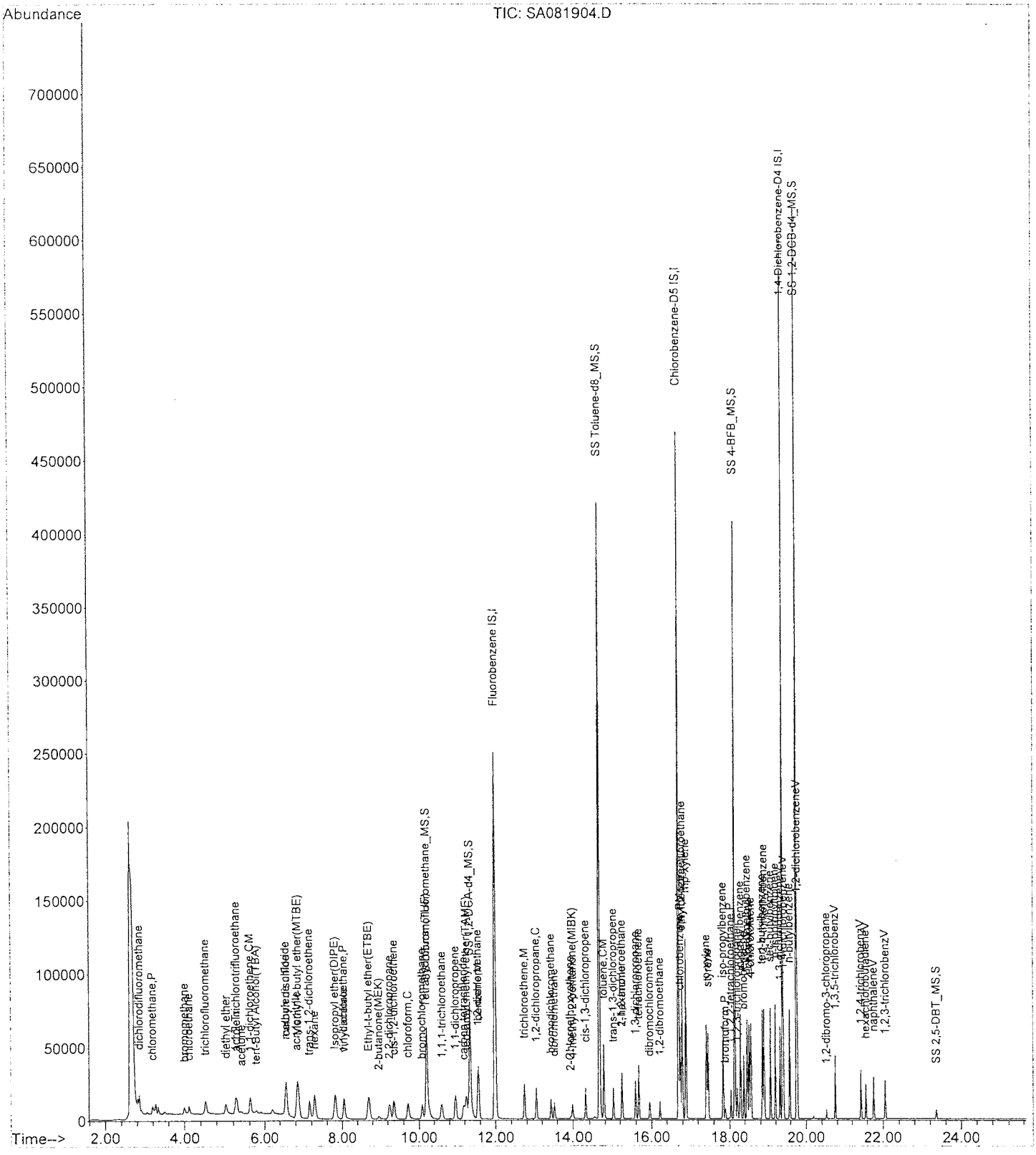
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	13328	1.301 ug/L	98
39)	trichloroethene	12.73	95	9969	1.267 ug/L	98
40)	1,2-dichloropropane	13.05	63	9198	1.196 ug/L	94
42)	dibromomethane	13.53	93	5241	1.148 ug/L	97
43)	bromodichloromethane	13.44	83	9783	1.075 ug/L	98
44)	2-Chloroethoxyethene	13.95	63	736	9.794 ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	3134	1.367 ug/L	92
46)	cis-1,3-dichloropropene	14.30	75	11883	2.652 ug/L	91
49)	toluene	14.77	91	42180	1.279 ug/L	99
50)	trans-1,3-dichloropropene	15.03	75	10719	2.286 ug/L	93
51)	1,1,2-trichloroethane	15.25	83	6360	1.216 ug/L	96
52)	2-hexanone	15.25	43	5641	1.570 ug/L	94
53)	tetrachloroethene	15.67	166	11126	1.259 ug/L	98
54)	1,3-dichloropropane	15.60	76	13608	1.212 ug/L	89
55)	dibromochloromethane	15.95	129	6051	3.054 ug/L #	97
56)	1,2-dibromoethane	16.22	107	7628	1.202 ug/L	100
57)	chlorobenzene	16.74	112	28347	1.243 ug/L	97
58)	1,1,1,2-tetrachloroethane	16.79	131	7835	1.106 ug/L #	74
59)	ethylbenzene	16.79	91	48153	1.313 ug/L	99
60)	mp-xylene	16.89	106	38052	2.556 ug/L	97
61)	o-xylene	17.41	106	17949	1.275 ug/L	96
62)	styrene	17.46	104	28616	1.203 ug/L	96
63)	bromoform	17.89	173	3143	3.473 ug/L	98
64)	iso-propylbenzene	17.83	105	42810	1.288 ug/L	98
67)	bromobenzene	18.38	156	11673	1.254 ug/L	96
68)	1,1,2,2-tetrachloroethane	18.04	83	8834	1.179 ug/L #	1
69)	1,2,3-trichloropropane	18.21	110	3033	1.292 ug/L	98
71)	n-propylbenzene	18.28	91	54448	1.315 ug/L	99
72)	2-chlorotoluene	18.51	91	34205	1.309 ug/L	99
73)	4-chlorotoluene	18.56	91	34795	1.322 ug/L	97
74)	1,3,5-trimethylbenzene	18.46	105	38409	1.318 ug/L	98
75)	tert-butylbenzene	18.84	119	34129	1.333 ug/L	96
76)	1,2,4-trimethylbenzene	18.89	105	39627	1.311 ug/L	99
77)	sec-butylbenzene	19.06	105	47759	1.318 ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	22296	1.275 ug/L	97
79)	p-isopropyltoluene	19.19	119	39947	1.301 ug/L	98
80)	1,4-dichlorobenzeneV	19.42	146	22414m	1.257 ug/L	
81)	1,2-dichlorobenzeneV	19.77	146	20836	1.258 ug/L #	33
82)	n-butylbenzene	19.58	91	33045	1.249 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	1237	3.871 ug/L	88
85)	1,3,5-trichlorobenzV	20.75	180	12414	1.234 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	10022	1.220 ug/L	97
87)	hexachlorobutadieneV	21.56	225	4402	1.120 ug/L	97
88)	naphthaleneV	21.76	128	24159	1.140 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	8796	1.237 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:18 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	319447	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249650	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	130715	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	75381	12.27 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.73%#		
35) SS 1,2-DCA-d4_MS	11.33	65	93786	13.06 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.58%#		
48) SS Toluene-d8_MS	14.65	98	318656	12.96 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.59%#		
65) SS 4-BFB_MS	18.13	95	123334	13.26 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.60%#		
83) SS 1,2-DCB-d4_MS	19.75	152	129791	12.60 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.03%#		
90) SS 2,5-DBT_MS	23.36	250	3717	6.74 ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 16.86%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	20603	2.368 ug/L	98
3) chloromethane	3.20	50	19547	2.173 ug/L	99
4) vinyl chloride	3.34	62	9660	Below Cal	99
5) bromomethane	4.00	94	8033	1.565 ug/L	94
6) chloroethane	4.12	64	11601	2.144 ug/L	97
7) trichlorofluoromethane	4.52	101	24102	2.111 ug/L	98
8) diethyl ether	5.02	59	12737	2.301 ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	17137	2.538 ug/L	99
10) acrolein	5.27	56	2139m	3.258 ug/L	
11) acetone	5.38	43	4673	2.692 ug/L	92
12) 1,1-dichloroethene	5.61	96	15933	2.247 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	7357	15.081 ug/L #	65
15) methylene chloride	6.55	84	19624	2.468 ug/L	99
16) carbon disulfide	6.57	76	51897	2.533 ug/L	96
17) acrylonitrile	6.82	53	7139	2.644 ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	88412	5.645 ug/L	95
19) trans-1,2-dichloroethene	7.15	96	17490	2.582 ug/L	97
20) hexane	7.28	57	26198	3.177 ug/L	95
21) Isopropyl ether(DIPE)	7.82	45	61129	2.933 ug/L	99
22) vinyl acetate	8.05	43	29146	2.570 ug/L	97
23) 1,1-dichloroethane	8.05	63	31798	2.536 ug/L #	98
24) Ethyl-t-butyl ether(ETBE)	8.70	59	53393	3.118 ug/L	97
25) 2,2-dichloropropane	9.25	77	23815	3.006 ug/L	98
26) cis-1,2-dichloroethene	9.36	61	25574	2.621 ug/L	99
27) 2-butanone(MEK)	8.96	43	7612	3.043 ug/L #	91
28) bromochloromethane	10.08	128	9132	2.470 ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	5556	3.434 ug/L	89
30) chloroform	9.71	83	31108	2.509 ug/L	99
32) 1,1,1-trichloroethane	10.60	97	25378	2.595 ug/L	98
33) carbon tetrachloride	11.17	117	19915	2.276 ug/L	98
34) 1,1-dichloropropene	10.97	75	25741	2.677 ug/L	95
36) tert-amyl methyl ether(TAM	11.24	73	45373	7.172 ug/L #	90
37) benzene	11.55	78	75148	2.493 ug/L	98

(#) = qualifier out of range (m) = manual integration
SA081906.D 5VID0819.M Fri Aug 23 12:52:58 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

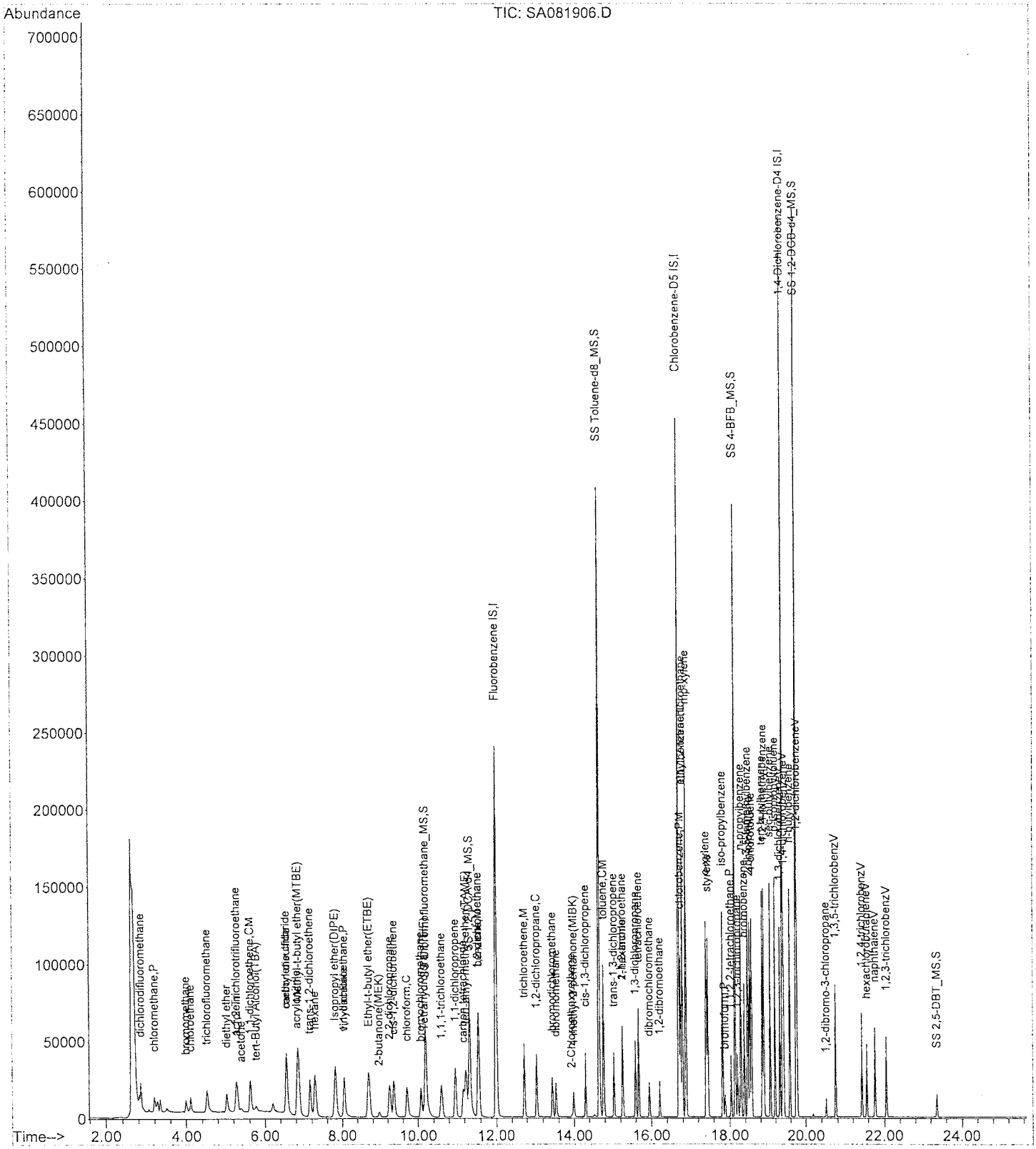
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.54	62	26250	2.655 ug/L	100
39)	trichloroethene	12.73	95	18813	2.477 ug/L	97
40)	1,2-dichloropropane	13.05	63	17934	2.416 ug/L	95
42)	dibromomethane	13.53	93	10335	2.346 ug/L	98
43)	bromodichloromethane	13.44	83	19293	2.198 ug/L	99
44)	2-Chloroethoxyethene	13.95	63	860	9.946 ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	5142	2.325 ug/L	93
46)	cis-1,3-dichloropropene	14.30	75	23435	3.643 ug/L	94
49)	toluene	14.77	91	81742	2.548 ug/L	99
50)	trans-1,3-dichloropropene	15.03	75	20701	3.240 ug/L	93
51)	1,1,2-trichloroethane	15.25	83	12172	2.392 ug/L	97
52)	2-hexanone	15.25	43	9113	2.606 ug/L	93
53)	tetrachloroethene	15.67	166	21366	2.484 ug/L	98
54)	1,3-dichloropropane	15.59	76	26443	2.420 ug/L	90
55)	dibromochloromethane	15.95	129	12078	3.862 ug/L #	98
56)	1,2-dibromoethane	16.22	107	14844	2.404 ug/L	99
57)	chlorobenzene	16.74	112	55032	2.481 ug/L	99
58)	1,1,1,2-tetrachloroethane	16.79	131	15120	2.194 ug/L	99
59)	ethylbenzene	16.79	91	93282	2.614 ug/L	99
60)	mp-xylene	16.89	106	74104	5.116 ug/L	96
61)	o-xylene	17.41	106	36012	2.630 ug/L	98
62)	styrene	17.46	104	57490	2.483 ug/L	98
63)	bromoform	17.88	173	6115	4.103 ug/L	96
64)	iso-propylbenzene	17.83	105	85828	2.654 ug/L	99
67)	bromobenzene	18.38	156	22626	2.518 ug/L	96
68)	1,1,2,2-tetrachloroethane	18.03	83	17355	2.399 ug/L #	1
69)	1,2,3-trichloropropane	18.21	110	5701	2.516 ug/L	98
71)	n-propylbenzene	18.28	91	108302	2.710 ug/L	99
72)	2-chlorotoluene	18.51	91	67012	2.658 ug/L	98
73)	4-chlorotoluene	18.56	91	67613	2.663 ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	75808	2.696 ug/L	98
75)	tert-butylbenzene	18.84	119	67760	2.743 ug/L	97
76)	1,2,4-trimethylbenzene	18.89	105	77341	2.652 ug/L	99
77)	sec-butylbenzene	19.06	105	94866	2.713 ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	44339	2.627 ug/L	98
79)	p-isopropyltoluene	19.19	119	78820	2.660 ug/L	98
80)	1,4-dichlorobenzeneV	19.42	146	44318	2.575 ug/L	94
81)	1,2-dichlorobenzeneV	19.77	146	41371	2.588 ug/L #	93
82)	n-butylbenzene	19.58	91	66590	2.608 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	2460	4.684 ug/L	94
85)	1,3,5-trichlorobenzV	20.75	180	24093	2.482 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	19943	2.515 ug/L	96
87)	hexachlorobutadieneV	21.56	225	8743	2.305 ug/L	96
88)	naphthaleneV	21.76	128	47834	2.338 ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	17026	2.482 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	320805	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	251289	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133403	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76274	12.37	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.66%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93843	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.11%#			
48) SS Toluene-d8_MS	14.65	98	317981	12.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.47%#			
65) SS 4-BFB_MS	18.13	95	125430	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.98%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133725	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	10510	9.19	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 22.98%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.86	85	52735	6.035	ug/L	98
3) chloromethane	3.19	50	48146	5.329	ug/L	99
4) vinyl chloride	3.34	62	23140	3.053	ug/L	98
5) bromomethane	4.00	94	20450	3.967	ug/L	99
6) chloroethane	4.12	64	29303	5.392	ug/L	98
7) trichlorofluoromethane	4.52	101	62572	5.458	ug/L	98
8) diethyl ether	5.02	59	32652	5.873	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.27	101	42573	6.277	ug/L	96
10) acrolein	5.27	56	4060	6.158	ug/L	94
11) acetone	5.38	43	10264	5.888	ug/L	99
12) 1,1-dichloroethene	5.61	96	36739	5.159	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	16528	33.736	ug/L #	80
15) methylene chloride	6.55	84	42886	5.371	ug/L	99
16) carbon disulfide	6.57	76	111777	5.432	ug/L	97
17) acrylonitrile	6.82	53	17825	6.573	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	216505	13.766	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	40969	6.023	ug/L	97
20) hexane	7.28	57	67117	8.104	ug/L	98
21) Isopropyl ether(DIPE)	7.82	45	143629	6.861	ug/L	98
22) vinyl acetate	8.06	43	72699	6.383	ug/L	98
23) 1,1-dichloroethane	8.05	63	75512	5.998	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	126117	7.334	ug/L	97
25) 2,2-dichloropropane	9.25	77	56793	7.138	ug/L	96
26) cis-1,2-dichloroethene	9.36	61	60826	6.209	ug/L	98
27) 2-butanone(MEK)	8.97	43	17834	7.100	ug/L	97
28) bromochloromethane	10.08	128	21282	5.733	ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	12622	7.768	ug/L	94
30) chloroform	9.71	83	72795	5.845	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	60406	6.150	ug/L	99
33) carbon tetrachloride	11.17	117	48262	5.492	ug/L	98
34) 1,1-dichloropropene	10.96	75	60041	6.218	ug/L	96
36) tert-amyl methyl ether(TAM	11.24	73	108618	10.516	ug/L #	90
37) benzene	11.56	78	176668	5.836	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

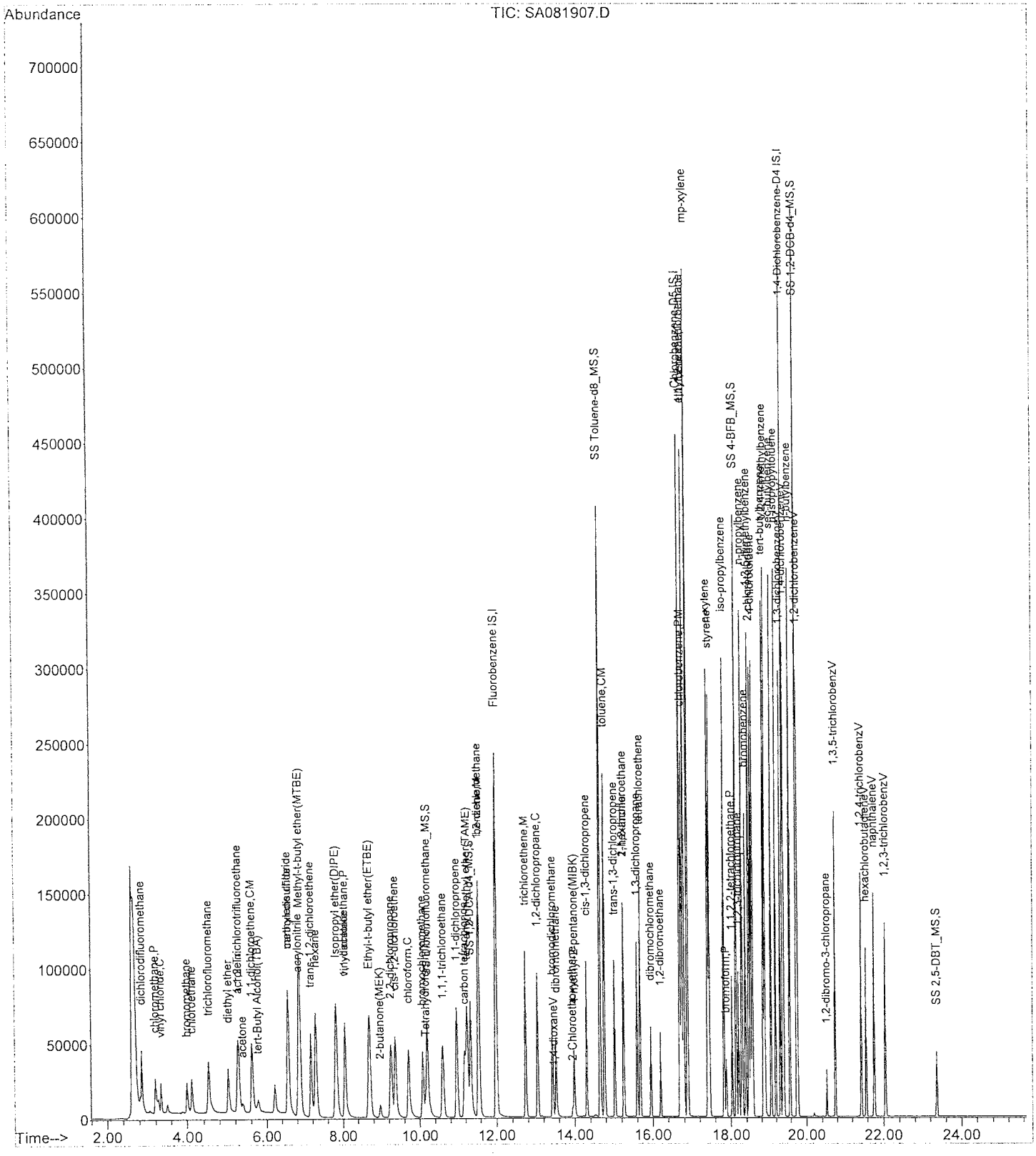
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.54	62	61309	6.175	ug/L		100
39)	trichloroethene	12.73	95	45171	5.922	ug/L		98
40)	1,2-dichloropropane	13.05	63	43515	5.838	ug/L		97
41)	1,4-dioxaneV	13.48	88	846m	13.546	ug/L		
42)	dibromomethane	13.53	93	24271	5.487	ug/L		97
43)	bromodichloromethane	13.44	83	47407	5.377	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	3104	12.179	ug/L	#	43
45)	4-methyl-2-pentanone(MIBK)	13.99	58	13485	6.071	ug/L		93
46)	cis-1,3-dichloropropene	14.30	75	58094	6.490	ug/L		94
49)	toluene	14.77	91	191504	5.931	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	52570	6.168	ug/L		95
51)	1,1,2-trichloroethane	15.25	83	29245	5.711	ug/L		98
52)	2-hexanone	15.25	43	24389	6.929	ug/L		95
53)	tetrachloroethene	15.67	166	50144	5.792	ug/L		98
54)	1,3-dichloropropane	15.60	76	62562	5.689	ug/L		93
55)	dibromochloromethane	15.95	129	31928	6.426	ug/L	#	99
56)	1,2-dibromoethane	16.22	107	35917	5.778	ug/L		100
57)	chlorobenzene	16.74	112	130184	5.831	ug/L		98
58)	1,1,1,2-tetrachloroethane	16.79	131	38004	5.480	ug/L		99
59)	ethylbenzene	16.79	91	219934	6.123	ug/L		99
60)	mp-xylene	16.89	106	177354	12.164	ug/L		98
61)	o-xylene	17.41	106	84117	6.102	ug/L		96
62)	styrene	17.46	104	139333	5.980	ug/L		98
63)	bromoform	17.89	173	16642	6.250	ug/L		97
64)	iso-propylbenzene	17.83	105	203714	6.259	ug/L		99
67)	bromobenzene	18.38	156	53742	5.860	ug/L		96
68)	1,1,2,2-tetrachloroethane	18.03	83	41833	5.666	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	13604	5.884	ug/L		99
71)	n-propylbenzene	18.28	91	258877	6.348	ug/L		99
72)	2-chlorotoluene	18.51	91	159436	6.196	ug/L		98
73)	4-chlorotoluene	18.56	91	161678	6.239	ug/L		98
74)	1,3,5-trimethylbenzene	18.46	105	182407	6.355	ug/L		99
75)	tert-butylbenzene	18.84	119	161039	6.387	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	188944	6.348	ug/L		99
77)	sec-butylbenzene	19.06	105	226722	6.354	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	104856	6.088	ug/L		98
79)	p-isopropyltoluene	19.19	119	193097	6.385	ug/L		98
80)	1,4-dichlorobenzeneV	19.42	146	105039	5.981	ug/L		97
81)	1,2-dichlorobenzeneV	19.78	146	97597	5.983	ug/L	#	88
82)	n-butylbenzene	19.58	91	162983	6.256	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	6339	7.094	ug/L		93
85)	1,3,5-trichlorobenzV	20.75	180	58265	5.880	ug/L		96
86)	1,2,4-trichlorobenzV	21.44	180	48079	5.941	ug/L		97
87)	hexachlorobutadieneV	21.56	225	20536	5.305	ug/L		94
88)	naphthaleneV	21.76	128	121958	5.842	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	41777	5.967	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329680	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	257906	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139765	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78654	12.41	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.09%#			
35) SS 1,2-DCA-d4_MS	11.33	65	95691	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
48) SS Toluene-d8_MS	14.65	98	327525	12.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.94%#			
65) SS 4-BFB_MS	18.13	95	128857	13.41	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.11%#			
83) SS 1,2-DCB-d4_MS	19.75	152	138658	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
90) SS 2,5-DBT_MS	23.36	250	25727	14.32	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 35.79%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	103983	11.580	ug/L	99
3) chloromethane	3.19	50	91726	9.879	ug/L	100
4) vinyl chloride	3.34	62	44632	8.999	ug/L	100
5) bromomethane	3.99	94	45838	8.653	ug/L	99
6) chloroethane	4.11	64	57305	10.260	ug/L	98
7) trichlorofluoromethane	4.52	101	123630	10.494	ug/L	99
8) diethyl ether	5.02	59	64977	11.374	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	84181	12.078	ug/L	96
10) acrolein	5.27	56	7273	10.735	ug/L	96
11) acetone	5.39	43	20604	11.501	ug/L	98
12) 1,1-dichloroethene	5.61	96	78878	10.778	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	34099	67.728	ug/L #	82
15) methylene chloride	6.55	84	87611	10.676	ug/L	100
16) carbon disulfide	6.57	76	233920	11.062	ug/L	100
17) acrylonitrile	6.82	53	36171	12.980	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	451396	27.928	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	87734	12.551	ug/L	98
20) hexane	7.28	57	129654	15.233	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	305985	14.224	ug/L	98
22) vinyl acetate	8.05	43	142119	12.142	ug/L	98
23) 1,1-dichloroethane	8.05	63	162892	12.590	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	269357	15.242	ug/L	96
25) 2,2-dichloropropane	9.25	77	119382	14.601	ug/L	95
26) cis-1,2-dichloroethene	9.36	61	127369	12.651	ug/L	99
27) 2-butanone(MEK)	8.96	43	35397	13.713	ug/L	98
28) bromochloromethane	10.08	128	46322	12.141	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	24632	14.751	ug/L	96
30) chloroform	9.71	83	155938	12.185	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	129263	12.807	ug/L	98
33) carbon tetrachloride	11.17	117	108911	12.061	ug/L	99
34) 1,1-dichloropropene	10.96	75	127800	12.878	ug/L	97
36) tert-amyl methyl ether(TAM	11.24	73	232612	16.759	ug/L #	90
37) benzene	11.55	78	373237	11.998	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081908.D 5VID0819.M Fri Aug 23 12:53:17 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

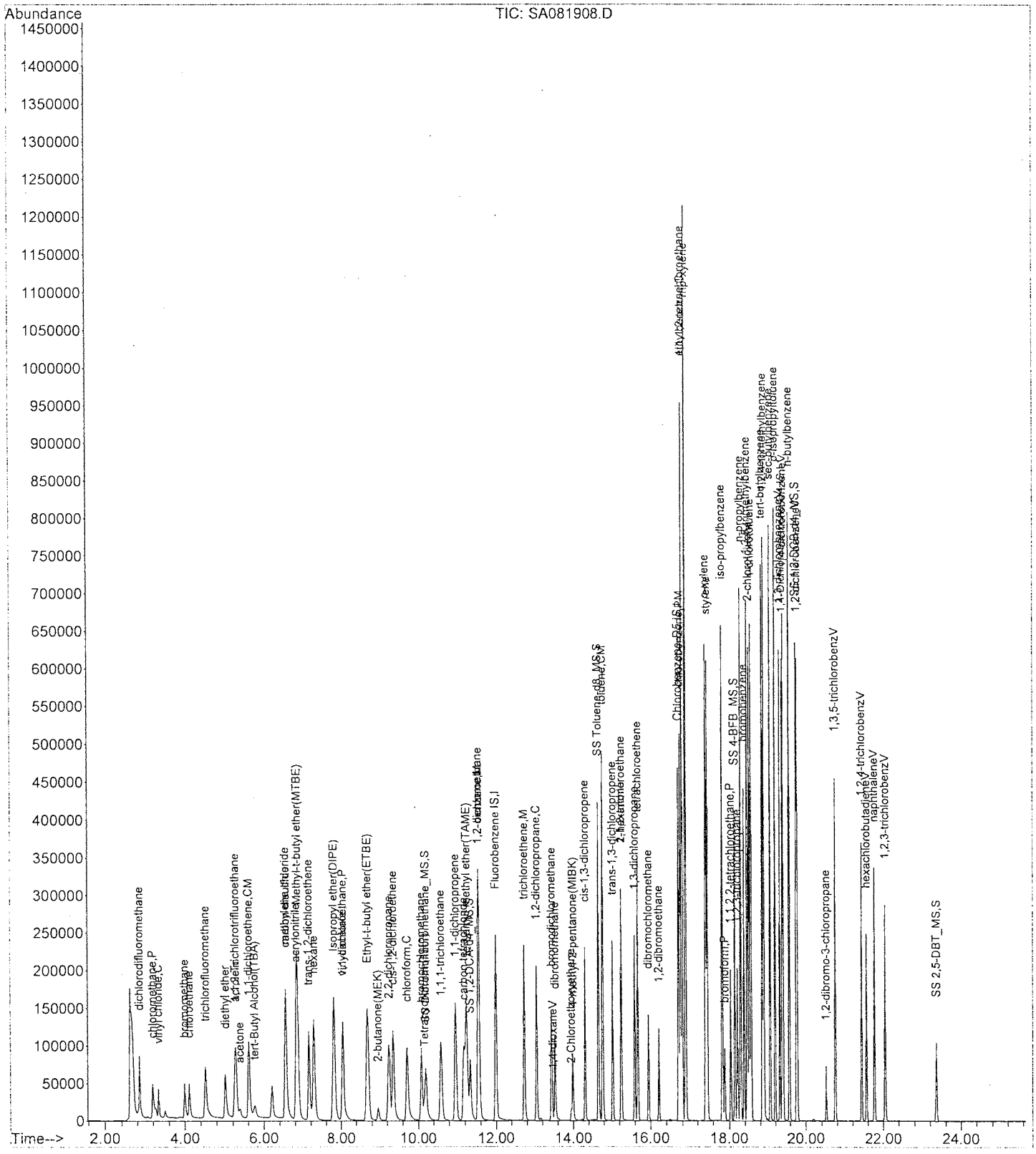
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	129205	12.664	ug/L		99
39)	trichloroethene	12.73	95	96961	12.370	ug/L		99
40)	1,2-dichloropropane	13.05	63	92382	12.060	ug/L		98
41)	1,4-dioxaneV	13.48	88	1968m	30.662	ug/L		
42)	dibromomethane	13.53	93	52221	11.488	ug/L		97
43)	bromodichloromethane	13.44	83	107082	11.819	ug/L		99
44)	2-Chloroethoxyethene	13.94	63	6324	15.143	ug/L	#	39
45)	4-methyl-2-pentanone(MIBK)	13.99	58	28342	12.415	ug/L		96
46)	cis-1,3-dichloropropene	14.30	75	129780	12.108	ug/L		95
49)	toluene	14.77	91	410451	12.385	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	120388	12.140	ug/L		97
51)	1,1,2-trichloroethane	15.25	83	63183	12.021	ug/L		98
52)	2-hexanone	15.25	43	49786	13.782	ug/L		98
53)	tetrachloroethene	15.67	166	106655	12.004	ug/L		98
54)	1,3-dichloropropane	15.60	76	135583	12.013	ug/L		94
55)	dibromochloromethane	15.95	129	74599	11.713	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	78816	12.354	ug/L		99
57)	chlorobenzene	16.74	112	277043	12.090	ug/L		97
58)	1,1,1,2-tetrachloroethane	16.79	131	86783	12.192	ug/L		99
59)	ethylbenzene	16.79	91	472657	12.821	ug/L		99
60)	mp-xylene	16.89	106	380544	25.430	ug/L		98
61)	o-xylene	17.41	106	183867	12.996	ug/L		98
62)	styrene	17.46	104	305435	12.772	ug/L		98
63)	bromoform	17.89	173	40886	10.998	ug/L		98
64)	iso-propylbenzene	17.83	105	440848	13.197	ug/L		99
67)	bromobenzene	18.38	156	118350	12.317	ug/L		97
68)	1,1,2,2-tetrachloroethane	18.04	83	92315	11.935	ug/L		99
69)	1,2,3-trichloropropane	18.21	110	29775	12.292	ug/L		99
71)	n-propylbenzene	18.28	91	559856	13.103	ug/L		99
72)	2-chlorotoluene	18.51	91	340614	12.635	ug/L		99
73)	4-chlorotoluene	18.56	91	348025	12.818	ug/L		99
74)	1,3,5-trimethylbenzene	18.46	105	398336	13.247	ug/L		99
75)	tert-butylbenzene	18.84	119	350839	13.281	ug/L		97
76)	1,2,4-trimethylbenzene	18.89	105	411467	13.194	ug/L		99
77)	sec-butylbenzene	19.06	105	495753	13.260	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	229470	12.718	ug/L		99
79)	p-isopropyltoluene	19.19	119	426581	13.464	ug/L		99
80)	1,4-dichlorobenzeneV	19.42	146	228211	12.402	ug/L		96
81)	1,2-dichlorobenzeneV	19.78	146	212093	12.409	ug/L	#	95
82)	n-butylbenzene	19.58	91	360458	13.205	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	15958	12.693	ug/L		96
85)	1,3,5-trichlorobenzV	20.75	180	129782	12.502	ug/L		97
86)	1,2,4-trichlorobenzV	21.44	180	109868	12.958	ug/L		98
87)	hexachlorobutadieneV	21.56	225	46830	11.546	ug/L		98
88)	naphthaleneV	21.76	128	281673	12.878	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	92922	12.667	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331394	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	262215	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	141362	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79273	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.42%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93143	12.50	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.01%#			
48) SS Toluene-d8_MS	14.66	98	333434	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
65) SS 4-BFB_MS	18.13	95	131321	13.44	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.43%#			
83) SS 1,2-DCB-d4_MS	19.75	152	141700	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	57521	25.16	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 62.90%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	194683	21.569	ug/L	99
3) chloromethane	3.19	50	172058	18.434	ug/L	100
4) vinyl chloride	3.34	62	80711	19.168	ug/L	99
5) bromomethane	3.99	94	93850	17.624	ug/L	99
6) chloroethane	4.11	64	109554	19.514	ug/L	99
7) trichlorofluoromethane	4.52	101	236579	19.977	ug/L	99
8) diethyl ether	5.02	59	124100	21.610	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162837	23.243	ug/L	96
10) acrolein	5.27	56	13820	20.293	ug/L	93
11) acetone	5.39	43	38187	21.205	ug/L	94
12) 1,1-dichloroethene	5.61	96	161233	21.917	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	68924	136.190	ug/L #	81
15) methylene chloride	6.55	84	176392	21.383	ug/L	99
16) carbon disulfide	6.57	76	481336	22.645	ug/L	98
17) acrylonitrile	6.81	53	68378	24.411	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	881551	54.260	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	180020	25.621	ug/L	98
20) hexane	7.28	57	259325	30.310	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	625967	28.948	ug/L	98
22) vinyl acetate	8.05	43	313110	26.613	ug/L	98
23) 1,1-dichloroethane	8.05	63	333509	25.643	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	547829	30.840	ug/L #	96
25) 2,2-dichloropropane	9.25	77	260109	31.648	ug/L	94
26) cis-1,2-dichloroethene	9.36	61	262646	25.952	ug/L	98
27) 2-butanone(MEK)	8.96	43	66318	25.559	ug/L	98
28) bromochloromethane	10.08	128	93545	24.392	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	46286	27.576	ug/L	95
30) chloroform	9.71	83	317565	24.686	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	268761	26.490	ug/L	98
33) carbon tetrachloride	11.17	117	231829	25.540	ug/L	99
34) 1,1-dichloropropene	10.96	75	264778	26.543	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	476650	29.225	ug/L #	89
37) benzene	11.55	78	762700	24.390	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

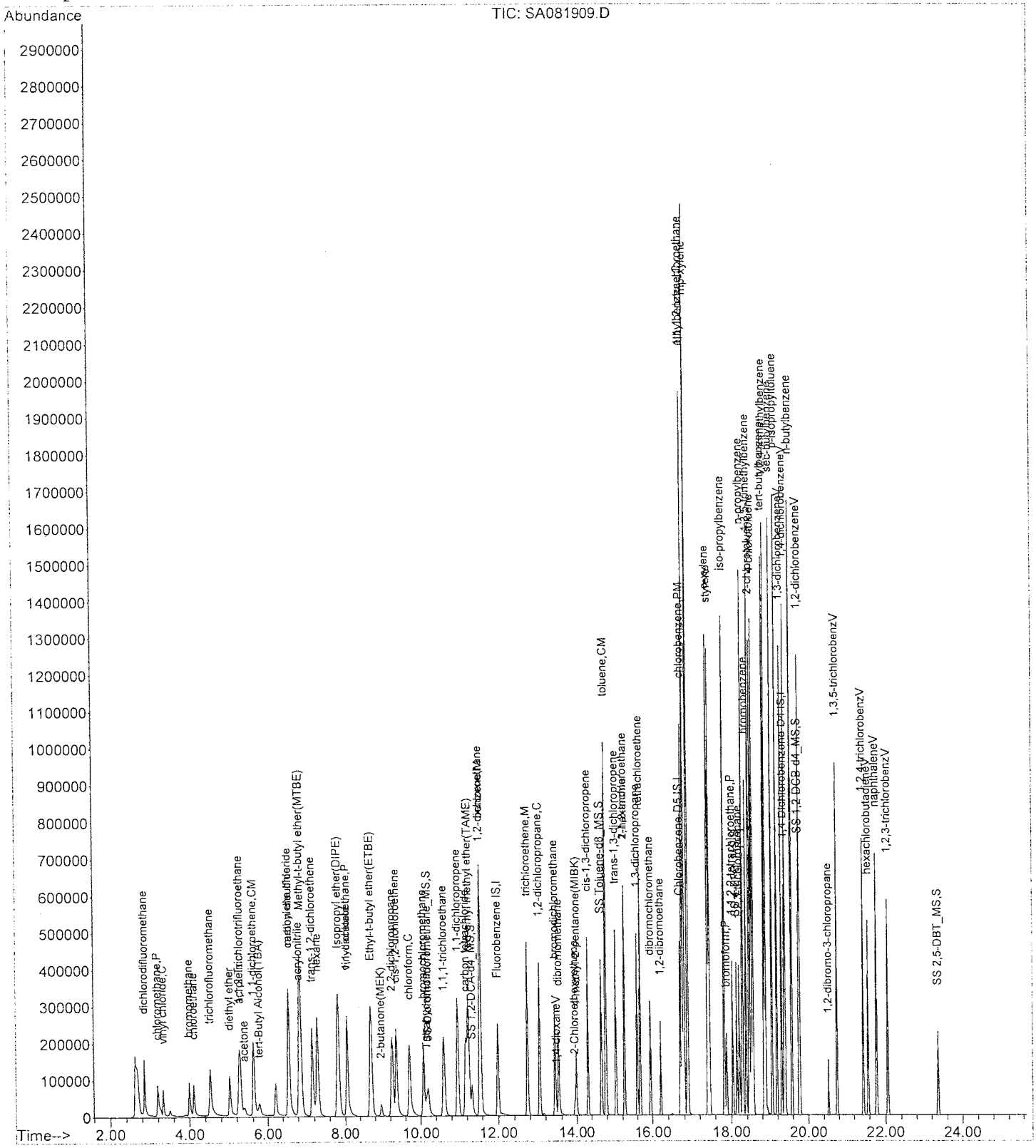
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	259670	25.320 ug/L	99
39)	trichloroethene	12.73	95	194776	24.721 ug/L	99
40)	1,2-dichloropropane	13.05	63	190971	24.800 ug/L	99
41)	1,4-dioxaneV	13.48	88	3928	60.883 ug/L #	95
42)	dibromomethane	13.53	93	106873	23.390 ug/L	98
43)	bromodichloromethane	13.44	83	226478	24.868 ug/L	100
44)	2-Chloroethoxyethene	13.95	63	17614	25.124 ug/L	83
45)	4-methyl-2-pentanone(MIBK)	13.99	58	54532	23.765 ug/L	94
46)	cis-1,3-dichloropropene	14.30	75	277015	23.797 ug/L	97
49)	toluene	14.77	91	844209	25.055 ug/L	100
50)	trans-1,3-dichloropropene	15.03	75	261053	24.399 ug/L	98
51)	1,1,2-trichloroethane	15.25	83	128699	24.083 ug/L	98
52)	2-hexanone	15.25	43	95466	25.993 ug/L	98
53)	tetrachloroethene	15.67	166	219087	24.254 ug/L	98
54)	1,3-dichloropropane	15.60	76	275697	24.026 ug/L	95
55)	dibromochloromethane	15.95	129	166130	22.936 ug/L #	100
56)	1,2-dibromoethane	16.22	107	163336	25.182 ug/L	99
57)	chlorobenzene	16.74	112	574991	24.679 ug/L	99
58)	1,1,1,2-tetrachloroethane	16.79	131	183999	25.425 ug/L	100
59)	ethylbenzene	16.79	91	975608	26.028 ug/L	99
60)	mp-xylene	16.89	106	783338	51.486 ug/L	98
61)	o-xylene	17.41	106	380027	26.420 ug/L	98
62)	styrene	17.46	104	640234	26.331 ug/L	99
63)	bromoform	17.89	173	95889	21.653 ug/L	99
64)	iso-propylbenzene	17.83	105	917040	27.000 ug/L	100
67)	bromobenzene	18.38	156	243213	25.026 ug/L	98
68)	1,1,2,2-tetrachloroethane	18.04	83	195871	25.037 ug/L	100
69)	1,2,3-trichloropropane	18.21	110	60559	24.718 ug/L	99
71)	n-propylbenzene	18.28	91	1162564	26.902 ug/L	100
72)	2-chlorotoluene	18.51	91	701060	25.711 ug/L	99
73)	4-chlorotoluene	18.56	91	714685	26.025 ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	818531	26.913 ug/L	99
75)	tert-butylbenzene	18.84	119	723532	27.080 ug/L	97
76)	1,2,4-trimethylbenzene	18.89	105	842876	26.723 ug/L	99
77)	sec-butylbenzene	19.06	105	1021831	27.023 ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	475266	26.042 ug/L	100
79)	p-isopropyltoluene	19.19	119	887637	27.700 ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	472725	25.400 ug/L	99
81)	1,2-dichlorobenzeneV	19.78	146	439455	25.422 ug/L	99
82)	n-butylbenzene	19.58	91	755022	27.347 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	35245	24.044 ug/L	97
85)	1,3,5-trichlorobenzV	20.75	180	273191	26.019 ug/L	98
86)	1,2,4-trichlorobenzV	21.44	180	228467	26.642 ug/L	99
87)	hexachlorobutadieneV	21.56	225	99180	24.177 ug/L	97
88)	naphthaleneV	21.76	128	592008	26.760 ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	196079	26.428 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335931	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266092	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145060	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80333	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.38%#			
35) SS 1,2-DCA-d4_MS	11.33	65	92083	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.65	98	334568	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.66%#			
65) SS 4-BFB_MS	18.13	95	132879	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.04%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145066	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.93%#			
90) SS 2,5-DBT_MS	23.36	250	168625	61.92	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 154.81%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	404367	54.224	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	179792	350.461	ug/L #	81
15) methylene chloride	6.55	84	437281	52.294	ug/L	98
16) carbon disulfide	6.57	76	1230241	57.097	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	461213	64.753	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	1609210	73.412	ug/L	97
23) 1,1-dichloroethane	8.04	63	845028	64.096	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	1416425	78.659	ug/L #	96
25) 2,2-dichloropropane	9.25	77	662748	79.549	ug/L	92
26) cis-1,2-dichloroethene	9.36	61	669164	65.227	ug/L	99
28) bromochloromethane	10.08	128	245669	63.194	ug/L	100
30) chloroform	9.71	83	811929	62.262	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	694283	67.508	ug/L	98
33) carbon tetrachloride	11.17	117	616174	66.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	674265	66.679	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	1249604	68.040	ug/L #	89
37) benzene	11.55	78	1949369	61.496	ug/L	99
38) 1,2-dichloroethane	11.54	62	655023	63.007	ug/L	99
39) trichloroethene	12.73	95	503338	63.021	ug/L	99
40) 1,2-dichloropropane	13.05	63	492015	63.032	ug/L	99
42) dibromomethane	13.53	93	281102	60.690	ug/L	97
43) bromodichloromethane	13.44	83	610134	66.090	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	735714	59.589	ug/L	98
49) toluene	14.77	91	2153729	62.989	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	705358	62.775	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	334663	61.713	ug/L	99
53) tetrachloroethene	15.67	166	568485	62.017	ug/L	97
54) 1,3-dichloropropane	15.60	76	712001	61.143	ug/L	96
55) dibromochloromethane	15.95	129	463357	59.045	ug/L #	99
56) 1,2-dibromoethane	16.22	107	430648	65.427	ug/L	100
57) chlorobenzene	16.74	112	1464220	61.931	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	484658	65.993	ug/L	99
59) ethylbenzene	16.79	91	2458719	64.641	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

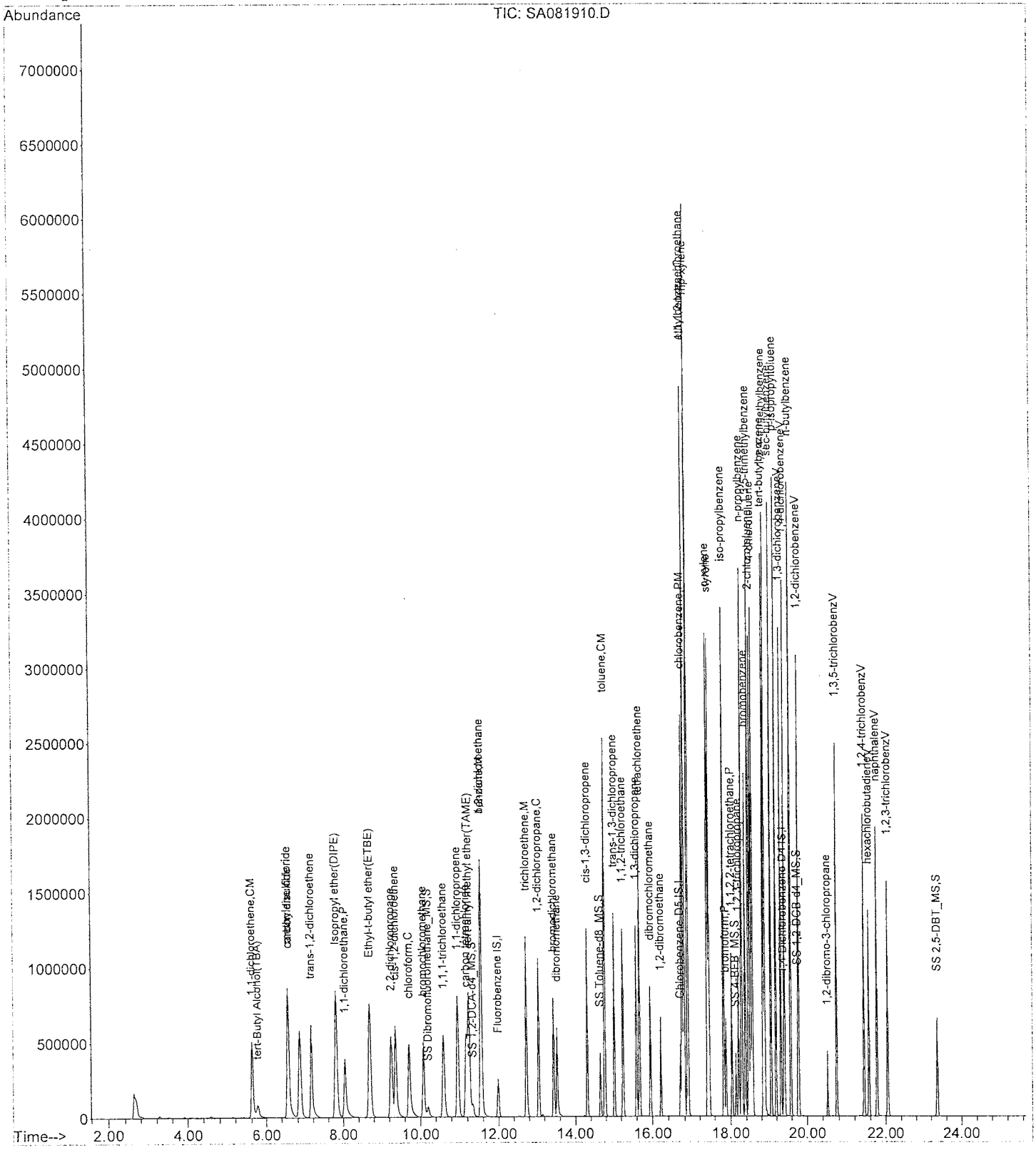
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	1969523	127.564	ug/L	99
61)	o-xylene	17.41	106	976890	66.924	ug/L	99
62)	styrene	17.46	104	1639183	66.433	ug/L	99
63)	bromoform	17.89	173	284834	57.904	ug/L	99
64)	iso-propylbenzene	17.83	105	2327255	67.523	ug/L	99
67)	bromobenzene	18.38	156	631462	63.320	ug/L	100
68)	1,1,2,2-tetrachloroethane	18.04	83	515825	64.253	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	160290	63.755	ug/L	98
71)	n-propylbenzene	18.29	91	2946454	66.444	ug/L	99
72)	2-chlorotoluene	18.51	91	1769997	63.260	ug/L	99
73)	4-chlorotoluene	18.56	91	1815730	64.434	ug/L	100
74)	1,3,5-trimethylbenzene	18.46	105	2098777	67.249	ug/L	100
75)	tert-butylbenzene	18.84	119	1841012	67.148	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	2149505	66.411	ug/L	99
77)	sec-butylbenzene	19.06	105	2621616	67.563	ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	1227456	65.545	ug/L	100
79)	p-isopropyltoluene	19.19	119	2264722	68.872	ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	1224592	64.122	ug/L	97
81)	1,2-dichlorobenzeneV	19.78	146	1142498	64.407	ug/L	97
82)	n-butylbenzene	19.58	91	1932849	68.224	ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	103649	63.117	ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	723845	67.184	ug/L	99
86)	1,2,4-trichlorobenzV	21.44	180	618016	70.231	ug/L	98
87)	hexachlorobutadieneV	21.56	225	264933	62.936	ug/L	98
88)	naphthaleneV	21.76	128	1614517	71.120	ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	527857	69.332	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:48 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:49:27 2013 Quant Results File: 5VID0819.RES

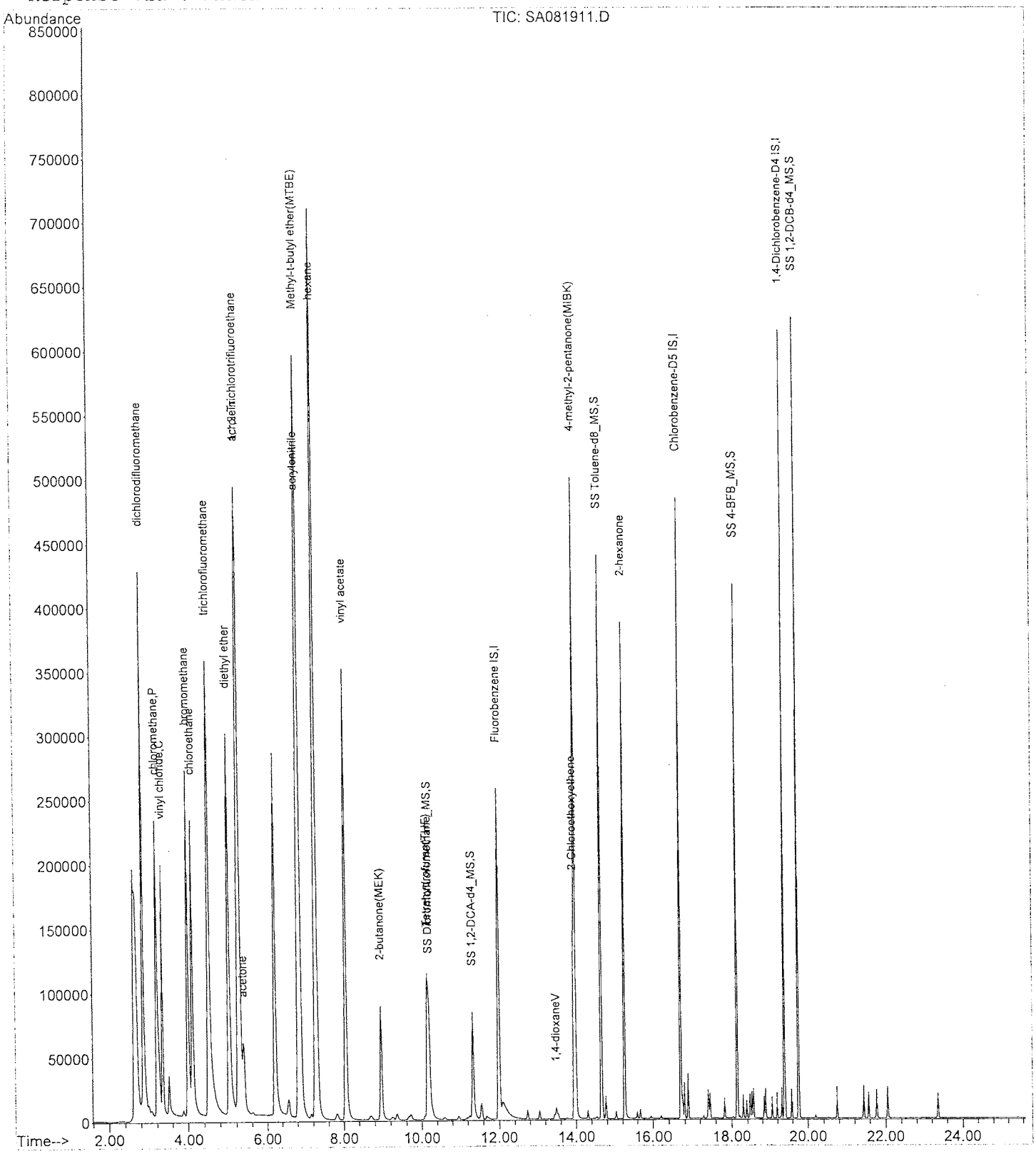
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	339880	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264197	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137469	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80106	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.58%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98674	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.13%#			
48) SS Toluene-d8_MS	14.65	98	339243	13.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.37%#			
65) SS 4-BFB_MS	18.13	95	130822	13.29	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.91%#			
83) SS 1,2-DCB-d4_MS	19.75	152	137890	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	536684	57.975	ug/L	99
3) chloromethane	3.19	50	467373	48.825	ug/L	100
4) vinyl chloride	3.34	62	223715	58.149	ug/L	99
5) bromomethane	3.99	94	285806	52.332	ug/L	99
6) chloroethane	4.11	64	305322	53.027	ug/L	98
7) trichlorofluoromethane	4.52	101	654087	53.854	ug/L	100
8) diethyl ether	5.02	59	339800	57.693	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	444771	61.901	ug/L	96
10) acrolein	5.27	56	34215	48.986	ug/L	99
11) acetone	5.39	43	102610	55.557	ug/L	94
17) acrylonitrile	6.82	53	179793	62.583	ug/L	92
18) Methyl-t-butyl ether(MTBE)	6.85	73	1170515	70.247	ug/L	96
20) hexane	7.28	57	714260	81.398	ug/L	99
22) vinyl acetate	8.05	43	882898	73.168	ug/L	98
27) 2-butanone(MEK)	8.96	43	186374	70.034	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	126802	73.659	ug/L	99
41) 1,4-dioxaneV	13.48	88	8590	129.819	ug/L #	73
44) 2-Chloroethoxyethene	13.95	63	69776	62.078	ug/L #	34
45) 4-methyl-2-pentanone(MIBK)	13.98	58	156553	66.521	ug/L	93
52) 2-hexanone	15.25	43	264972	71.605	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	353825	10.000	ug/L		0.00
47) Chlorobenzene-D5 IS	16.69	117	282298	10.000	ug/L		0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	152949	10.000	ug/L		0.00
System Monitoring Compounds							
31) SS Dibromofluoromethane_MS	10.20	111	85350	12.55	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.46%#				
35) SS 1,2-DCA-d4_MS	11.34	65	94152	11.84	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 118.36%				
48) SS Toluene-d8_MS	14.66	98	358167	12.88	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.82%#				
65) SS 4-BFB_MS	18.13	95	141281	13.43	ug/L		0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.33%#				
83) SS 1,2-DCB-d4_MS	19.75	152	154664	12.83	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.35%#				
90) SS 2,5-DBT_MS	23.36	250	352397	117.47	ug/L		0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 293.68%#				
Target Compounds							Qvalue
12) 1,1-dichloroethene	5.61	96	798847	101.704	ug/L		99
13) tert-Butyl Alcohol(TBA)	5.78	59	355261	657.474	ug/L	#	80
15) methylene chloride	6.55	84	850186	96.531	ug/L		98
16) carbon disulfide	6.57	76	2482263	109.378	ug/L		99
19) trans-1,2-dichloroethene	7.15	96	920269	122.670	ug/L		99
21) Isopropyl ether(DIPE)	7.81	45	3172223	137.398	ug/L		97
23) 1,1-dichloroethane	8.04	63	1684741	121.326	ug/L		99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	2805631	147.928	ug/L	#	96
25) 2,2-dichloropropane	9.24	77	1282370	146.138	ug/L		91
26) cis-1,2-dichloroethene	9.36	61	1322120	122.356	ug/L		100
28) bromochloromethane	10.08	128	491792	120.107	ug/L		99
30) chloroform	9.71	83	1615352	117.607	ug/L		100
32) 1,1,1-trichloroethane	10.59	97	1388303	128.163	ug/L		98
33) carbon tetrachloride	11.17	117	1249650	128.945	ug/L		100
34) 1,1-dichloropropene	10.96	75	1344519	126.238	ug/L		100
36) tert-amyl methyl ether(TAM	11.24	73	2507528	125.323	ug/L	#	89
37) benzene	11.56	78	3851284	115.350	ug/L		100
38) 1,2-dichloroethane	11.54	62	1269827	115.967	ug/L		99
39) trichloroethene	12.73	95	1012659	120.379	ug/L		99
40) 1,2-dichloropropane	13.05	63	981918	119.433	ug/L		98
42) dibromomethane	13.53	93	565072	115.829	ug/L		97
43) bromodichloromethane	13.44	83	1230530	126.551	ug/L		100
46) cis-1,3-dichloropropene	14.30	75	1482469	112.444	ug/L		99
49) toluene	14.77	91	4211772	116.108	ug/L		100
50) trans-1,3-dichloropropene	15.03	75	1416003	117.611	ug/L		99
51) 1,1,2-trichloroethane	15.25	83	670993	116.630	ug/L		99
53) tetrachloroethene	15.67	166	1142360	117.467	ug/L		96
54) 1,3-dichloropropane	15.60	76	1412274	114.317	ug/L		98
55) dibromochloromethane	15.95	129	962973	113.474	ug/L	#	100
56) 1,2-dibromoethane	16.22	107	868314	124.347	ug/L		99
57) chlorobenzene	16.74	112	2877344	114.714	ug/L		99
58) 1,1,1,2-tetrachloroethane	16.79	131	950257	121.963	ug/L		99
59) ethylbenzene	16.79	91	4650465	115.244	ug/L		99

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

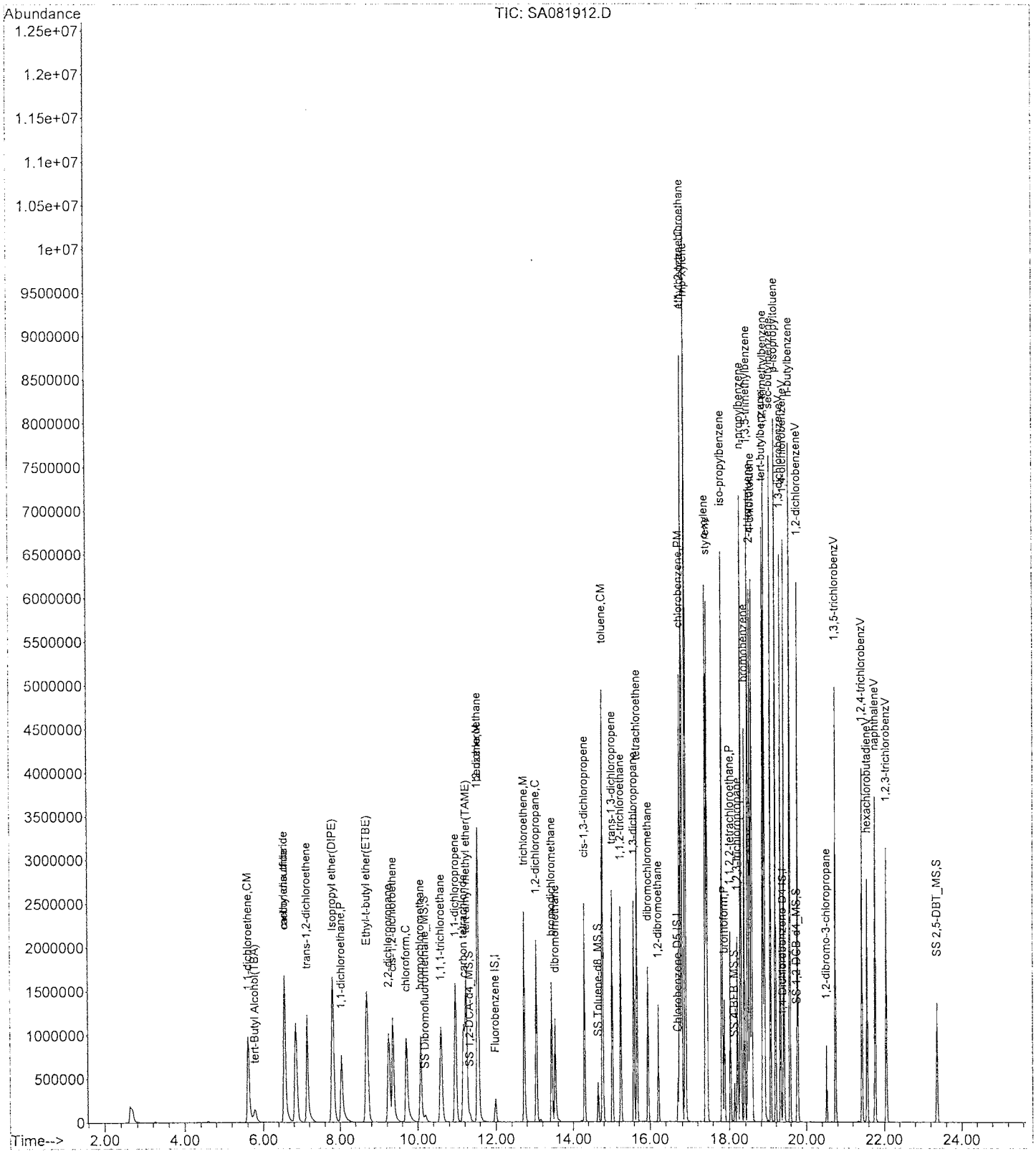
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	3612368	220.538	ug/L	100
61)	o-xylene	17.42	106	1899543	122.662	ug/L	99
62)	styrene	17.46	104	3197383	122.145	ug/L	99
63)	bromoform	17.89	173	605915	113.249	ug/L	99
64)	iso-propylbenzene	17.83	105	4489644	122.785	ug/L	99
67)	bromobenzene	18.38	156	1256098	119.458	ug/L	99
68)	1,1,2,2-tetrachloroethane	18.04	83	1018500	120.324	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	317030	119.595	ug/L	98
71)	n-propylbenzene	18.29	91	5661535	121.085	ug/L	98
72)	2-chlorotoluene	18.52	91	3508936	118.941	ug/L	100
73)	4-chlorotoluene	18.56	91	3397503	114.346	ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	4047113	122.989	ug/L	100
75)	tert-butylbenzene	18.85	119	3540878	122.486	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	4082099	119.614	ug/L	99
77)	sec-butylbenzene	19.06	105	4997923	122.160	ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	2402007	121.648	ug/L	99
79)	p-isopropyltoluene	19.19	119	4286623	123.635	ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	2394949	118.935	ug/L	96
81)	1,2-dichlorobenzeneV	19.78	146	2232663	119.371	ug/L	96
82)	n-butylbenzene	19.58	91	3684328	123.339	ug/L	98
84)	1,2-dibromo-3-chloropropan	20.52	157	217589	122.591	ug/L	99
85)	1,3,5-trichlorobenzV	20.75	180	1460642	128.577	ug/L	98
86)	1,2,4-trichlorobenzV	21.44	180	1245911	134.281	ug/L	98
87)	hexachlorobutadieneV	21.56	225	539972	121.657	ug/L	98
88)	naphthaleneV	21.76	128	3216106	134.363	ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	1068249	133.073	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:51 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:52:33 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

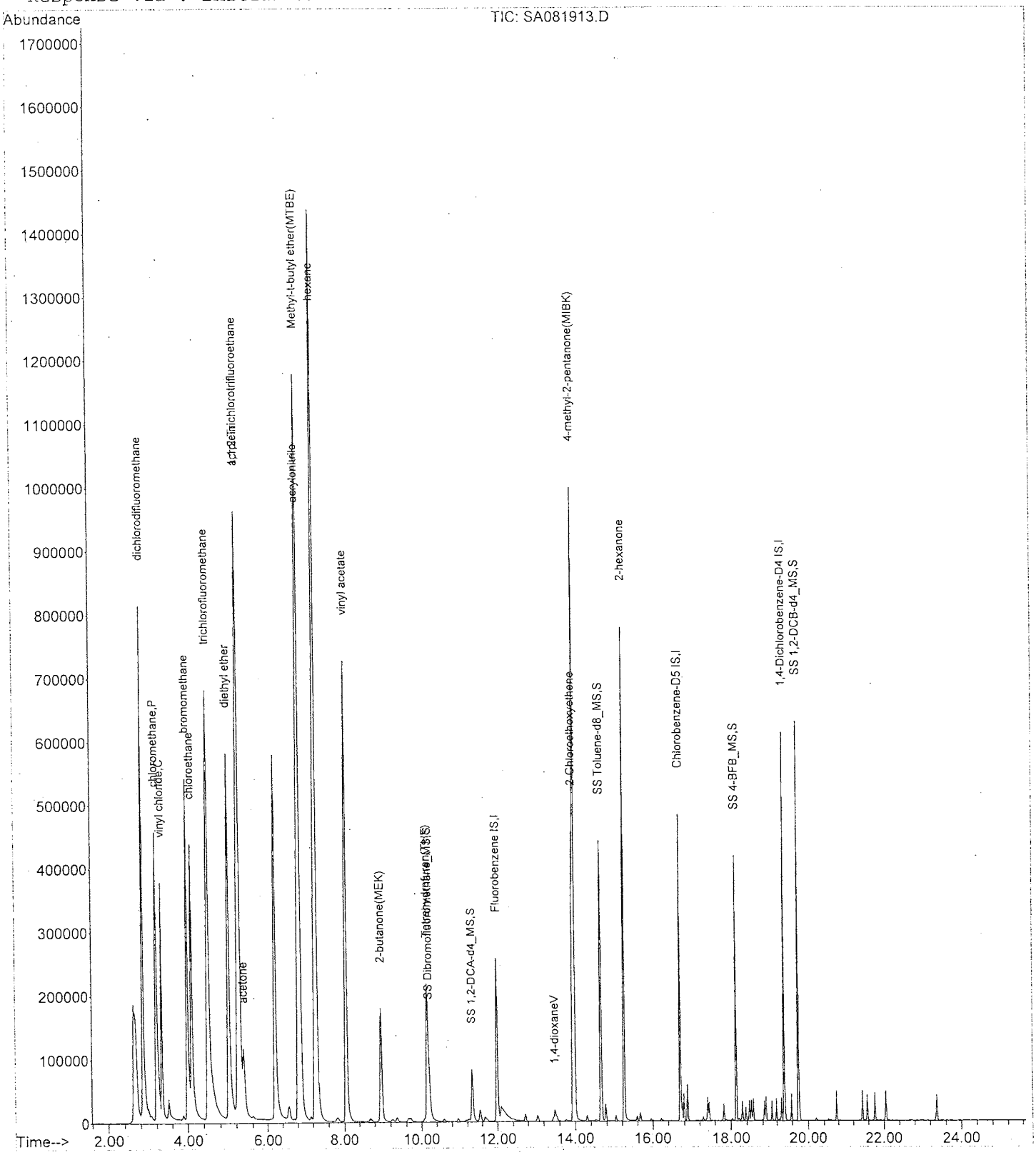
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	340007	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266108	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139054	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80456	12.31	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.07%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98415	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.74%#			
48) SS Toluene-d8_MS	14.65	98	342489	13.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.67%#			
65) SS 4-BFB_MS	18.13	95	130668	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.80%#			
83) SS 1,2-DCB-d4_MS	19.75	152	139162	12.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.02%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	1095162	118.259	ug/L	100
3) chloromethane	3.19	50	916541	95.712	ug/L	100
4) vinyl chloride	3.33	62	418278	111.919	ug/L	98
5) bromomethane	3.99	94	608805	111.432	ug/L	99
6) chloroethane	4.11	64	592527	102.868	ug/L	99
7) trichlorofluoromethane	4.52	101	1285573	105.807	ug/L	100
8) diethyl ether	5.02	59	671885	114.034	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	878654	122.241	ug/L	96
10) acrolein	5.27	56	68419	97.919	ug/L	98
11) acetone	5.39	43	202643	109.678	ug/L	93
17) acrylonitrile	6.82	53	358412	124.710	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	2326818	139.589	ug/L	96
20) hexane	7.27	57	1450032	165.186	ug/L	99
22) vinyl acetate	8.05	43	1807134	149.706	ug/L	98
27) 2-butanone(MEK)	8.96	43	373366	140.248	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	254908	148.020	ug/L	99
41) 1,4-dioxaneV	13.48	88	18331	276.930	ug/L #	79
44) 2-Chloroethoxyethene	13.95	63	207200	132.384	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	318455	135.264	ug/L	87
52) 2-hexanone	15.25	43	535895	143.778	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352917	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	283633	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	153510	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	83172	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.57%#			
35) SS 1,2-DCA-d4_MS	11.34	65	91309	11.51	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 115.08%			
48) SS Toluene-d8_MS	14.66	98	355662	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
65) SS 4-BFB_MS	18.13	95	139298	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.82%#			
83) SS 1,2-DCB-d4_MS	19.76	152	152678	12.62	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.24%#			
90) SS 2,5-DBT_MS	23.36	250	771525	249.92	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 624.79%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	1639315	209.245	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.86	59	729498	1353.541	ug/L #	80
15) methylene chloride	6.54	84	1690349	192.418	ug/L	97
16) carbon disulfide	6.57	76	4981979	220.091	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	1915096	255.935	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	6511629	282.763	ug/L	97
23) 1,1-dichloroethane	8.04	63	3480341	251.281	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	5811062	307.178	ug/L #	96
25) 2,2-dichloropropane	9.24	77	2749515	314.138	ug/L	89
26) cis-1,2-dichloroethene	9.36	61	2726180	252.944	ug/L	99
28) bromochloromethane	10.08	128	1027863	251.673	ug/L	99
30) chloroform	9.71	83	3356260	244.984	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	2901909	268.582	ug/L	97
33) carbon tetrachloride	11.17	117	2627635	271.829	ug/L	100
34) 1,1-dichloropropene	10.96	75	2780848	261.767	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	5282500	259.403	ug/L #	88
37) benzene	11.56	78	7736803	232.322	ug/L	100
38) 1,2-dichloroethane	11.54	62	2496597	228.589	ug/L	99
39) trichloroethene	12.73	95	2083327	248.290	ug/L	98
40) 1,2-dichloropropane	13.05	63	2045445	249.431	ug/L	97
42) dibromomethane	13.53	93	1169005	240.240	ug/L	96
43) bromodichloromethane	13.44	83	2581872	266.209	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	3110944	234.689	ug/L	98
49) toluene	14.77	91	8201808	225.039	ug/L	99
50) trans-1,3-dichloropropene	15.04	75	2955640	242.915	ug/L	98
51) 1,1,2-trichloroethane	15.25	83	1405014	243.066	ug/L	98
53) tetrachloroethene	15.67	166	2315834	237.012	ug/L	95
54) 1,3-dichloropropane	15.60	76	2915417	234.879	ug/L	100
55) dibromochloromethane	15.95	129	2046120	237.426	ug/L #	99
56) 1,2-dibromoethane	16.22	107	1801957	256.835	ug/L	100
57) chlorobenzene	16.75	112	5651839	224.266	ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	1740580	222.348	ug/L	100
59) ethylbenzene	16.80	91	7911394	195.131	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

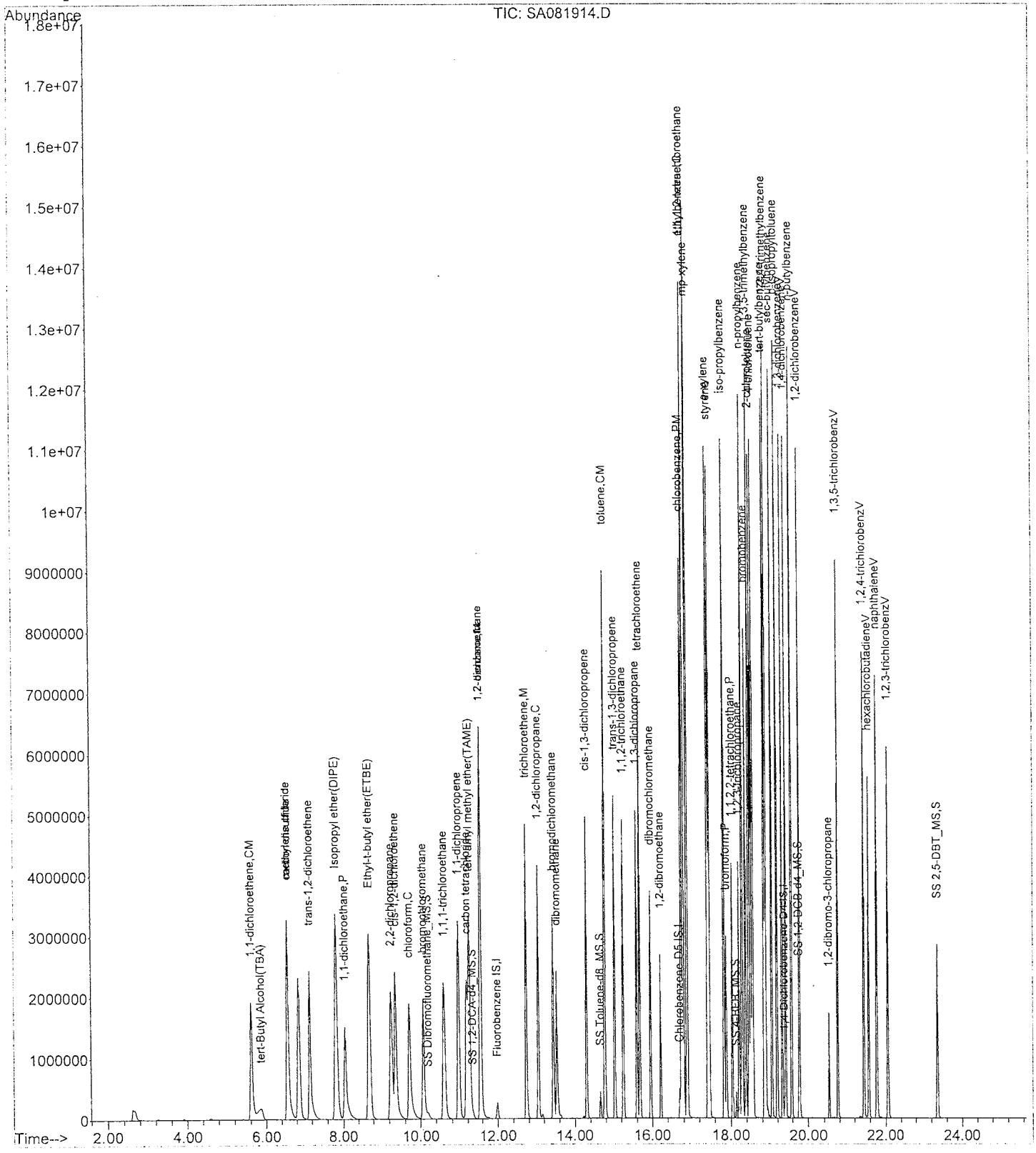
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.89	106	5843928	355.097	ug/L	99
61) o-xylene	17.42	106	3620276	232.677	ug/L	99
62) styrene	17.46	104	5948127	226.157	ug/L	97
63) bromoform	17.89	173	1315128	241.348	ug/L	97
64) iso-propylbenzene	17.83	105	8256023	224.726	ug/L	98
67) bromobenzene	18.38	156	2519837	238.767	ug/L	96
68) 1,1,2,2-tetrachloroethane	18.04	83	2105043	247.777	ug/L	99
69) 1,2,3-trichloropropane	18.21	110	651168	244.746	ug/L	98
71) n-propylbenzene	18.29	91	10096001	215.138	ug/L	95
72) 2-chlorotoluene	18.52	91	6431269	217.201	ug/L	98
73) 4-chlorotoluene	18.56	91	6405595	214.798	ug/L	98
74) 1,3,5-trimethylbenzene	18.47	105	7324783	221.782	ug/L	99
75) tert-butylbenzene	18.85	119	6622103	228.234	ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	7265425	212.115	ug/L	99
77) sec-butylbenzene	19.06	105	8783820	213.911	ug/L	97
78) 1,3-dichlorobenzeneV	19.32	146	4477751	225.944	ug/L	99
79) p-isopropyltoluene	19.19	119	7531539	216.432	ug/L	97
80) 1,4-dichlorobenzeneV	19.43	146	4465428	220.947	ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	4209219	224.227	ug/L	96
82) n-butylbenzene	19.59	91	6556792	218.698	ug/L	96
84) 1,2-dibromo-3-chloropropan	20.52	157	456270	252.746	ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	2915062	255.668	ug/L	97
86) 1,2,4-trichlorobenzV	21.44	180	2543411	273.120	ug/L	97
87) hexachlorobutadieneV	21.56	225	1138311	255.527	ug/L	97
88) naphthaleneV	21.77	128	6413602	266.969	ug/L	100
89) 1,2,3-trichlorobenzV	22.06	180	2198315	272.846	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54:51 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

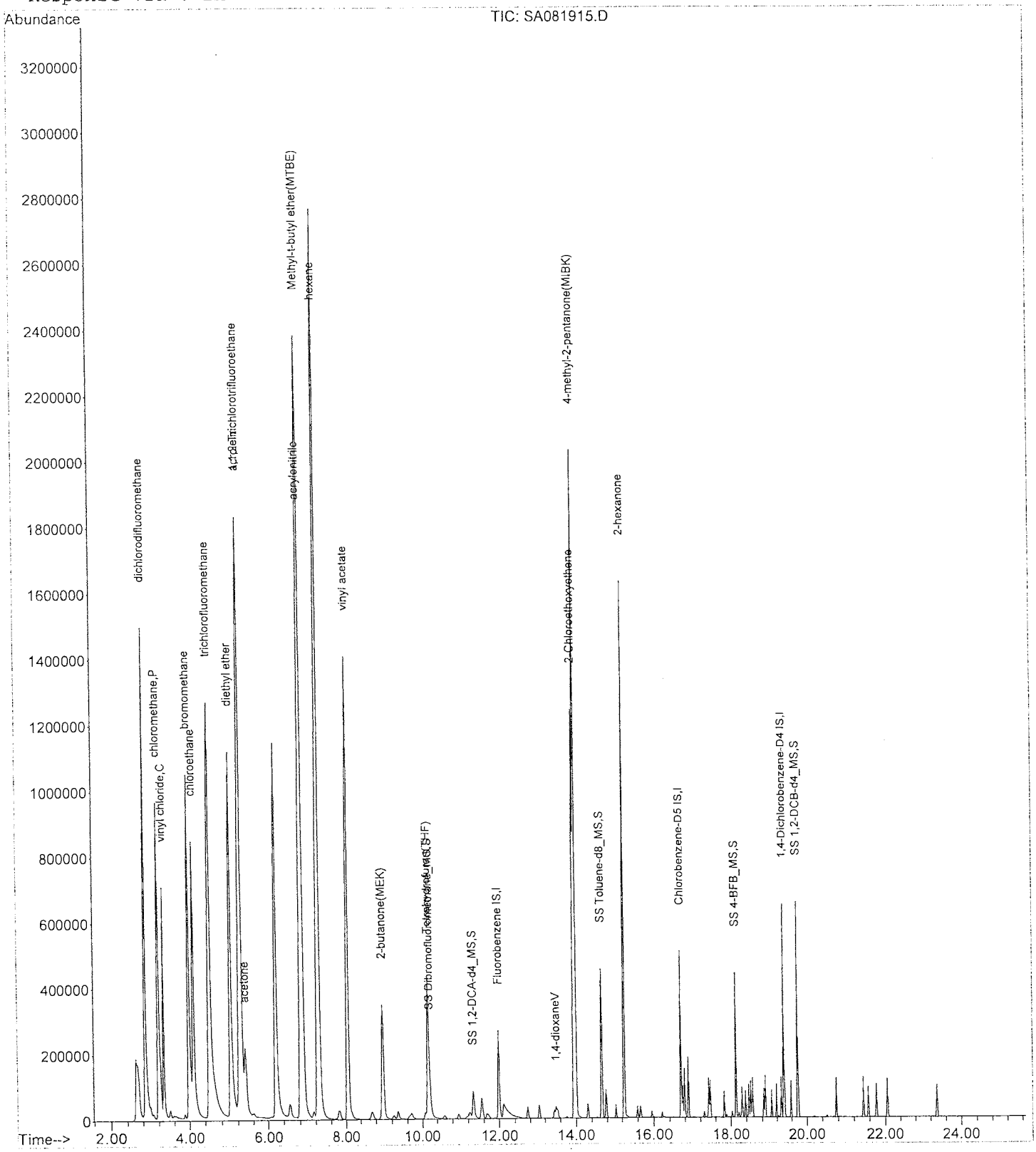
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356797	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	279401	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145819	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84203	12.27	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.74%#			
35) SS 1,2-DCA-d4_MS	11.33	65	101012	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
48) SS Toluene-d8_MS	14.65	98	354222	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.72%#			
65) SS 4-BFB_MS	18.13	95	137774	13.24	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.36%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145313	12.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.48%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	2171742	223.476	ug/L	100
3) chloromethane	3.18	50	1860747	185.169	ug/L	100
4) vinyl chloride	3.32	62	783027	202.579	ug/L	99
5) bromomethane	3.98	94	1244891	217.135	ug/L	99
6) chloroethane	4.10	64	1161779	192.205	ug/L	99
7) trichlorofluoromethane	4.51	101	2517167	197.422	ug/L	99
8) diethyl ether	5.02	59	1315712	212.798	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	1723484	228.492	ug/L	95
10) acrolein	5.27	56	137288	187.236	ug/L	98
11) acetone	5.39	43	399475	206.036	ug/L	94
17) acrylonitrile	6.82	53	722347	239.515	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	4757111	271.956	ug/L #	95
20) hexane	7.27	57	2854505	309.879	ug/L	98
22) vinyl acetate	8.05	43	3538301	279.325	ug/L	99
27) 2-butanone(MEK)	8.96	43	758375	271.465	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	517422	286.317	ug/L	100
41) 1,4-dioxaneV	13.49	88	37226	535.915	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	579288	250.204	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	651623	263.753	ug/L	82
52) 2-hexanone	15.25	43	1089936	278.512	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	361117	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.70	117	297048	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.40	152	157098	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	86530	12.46	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.63%#			
35) SS 1,2-DCA-d4_MS	11.34	65	92177	11.35	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.53%			
48) SS Toluene-d8_MS	14.66	98	370428	12.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.61%#			
65) SS 4-BFB_MS	18.14	95	146929	13.28	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.77%#			
83) SS 1,2-DCB-d4_MS	19.76	152	153858	12.43	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.31%#			
90) SS 2,5-DBT_MS	23.36	250	1176146	369.66	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 924.15%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.60	96	2351713	293.360	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.94	59	1071899m	1943.685	ug/L	
15) methylene chloride	6.54	84	2373457	264.044	ug/L	96
16) carbon disulfide	6.56	76	6989642	301.772	ug/L	99
19) trans-1,2-dichloroethene	7.14	96	2825884	369.078	ug/L	99
21) Isopropyl ether(DIPE)	7.82	45	9466436	401.740	ug/L	97
23) 1,1-dichloroethane	8.04	63	5164363	364.400	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	8575182	442.999	ug/L #	95
25) 2,2-dichloropropane	9.25	77	3897354	435.170	ug/L #	88
26) cis-1,2-dichloroethene	9.36	61	4000822	362.780	ug/L	98
28) bromochloromethane	10.08	128	1530647	366.270	ug/L	98
30) chloroform	9.71	83	4978228	355.126	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	4235914	383.147	ug/L	97
33) carbon tetrachloride	11.17	117	3829009	387.117	ug/L	99
34) 1,1-dichloropropene	10.96	75	4029861	370.726	ug/L	97
36) tert-amyl methyl ether(TAM	11.25	73	7865850	375.326	ug/L #	87
37) benzene	11.56	78	10778944	316.322	ug/L	99
38) 1,2-dichloroethane	11.54	62	3507010	313.812	ug/L	99
39) trichloroethene	12.73	95	3049607	355.198	ug/L	98
40) 1,2-dichloropropane	13.05	63	2986704	355.943	ug/L	96
42) dibromomethane	13.53	93	1714518	344.346	ug/L	96
43) bromodichloromethane	13.44	83	3810484	383.966	ug/L	99
46) cis-1,3-dichloropropene	14.31	75	4524780	332.879	ug/L	97
49) toluene	14.77	91	11176932	292.820	ug/L	98
50) trans-1,3-dichloropropene	15.04	75	4253809	333.325	ug/L	97
51) 1,1,2-trichloroethane	15.25	83	2050277	338.678	ug/L	98
53) tetrachloroethene	15.68	166	3280022	320.531	ug/L	94
54) 1,3-dichloropropane	15.60	76	4181659	321.679	ug/L	99
55) dibromochloromethane	15.95	129	3005809	332.115	ug/L #	99
56) 1,2-dibromoethane	16.22	107	2663210	362.448	ug/L	99
57) chlorobenzene	16.75	112	7716586	292.368	ug/L	98
58) 1,1,1,2-tetrachloroethane	16.79	131	2279636	278.057	ug/L	99
59) ethylbenzene	16.80	91	9741323	229.414	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

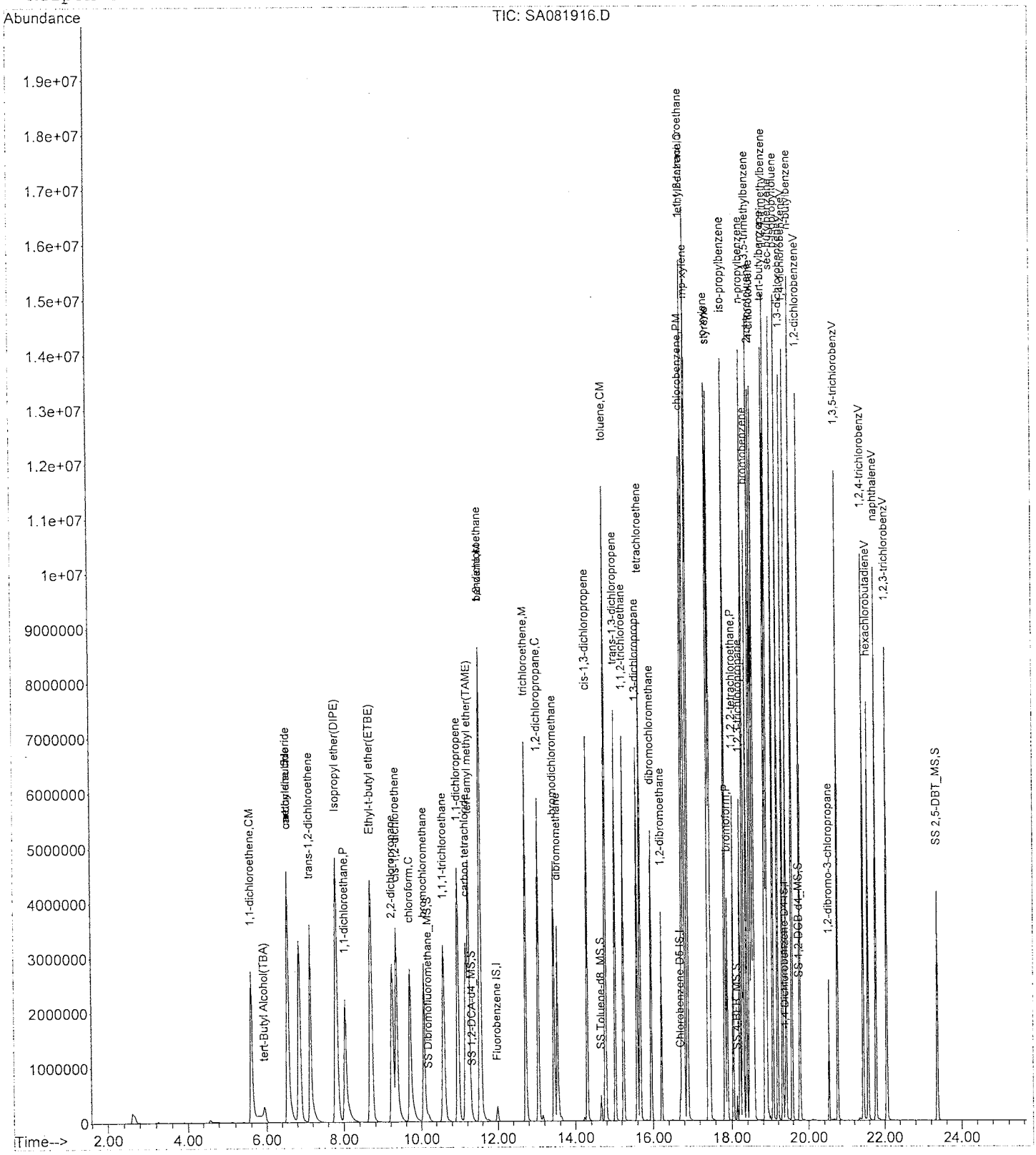
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.90	106	7129553	413.652	ug/L	99
61)	o-xylene	17.42	106	4827336	296.243	ug/L	98
62)	styrene	17.47	104	7881747	286.143	ug/L	97
63)	bromoform	17.90	173	1915867	334.604	ug/L	96
64)	iso-propylbenzene	17.83	105	10853307	282.082	ug/L	97
67)	bromobenzene	18.38	156	3532372	327.065	ug/L	95
68)	1,1,2,2-tetrachloroethane	18.04	83	2945469	338.782	ug/L	98
69)	1,2,3-trichloropropane	18.21	110	926336	340.217	ug/L	97
71)	n-propylbenzene	18.30	91	12752599	265.541	ug/L	93
72)	2-chlorotoluene	18.52	91	8782648	289.839	ug/L	97
73)	4-chlorotoluene	18.57	91	8183486	268.149	ug/L	97
74)	1,3,5-trimethylbenzene	18.47	105	9432429	279.074	ug/L	99
75)	tert-butylbenzene	18.86	119	8575894	288.822	ug/L	95
76)	1,2,4-trimethylbenzene	18.90	105	9254189	264.006	ug/L	99
77)	sec-butylbenzene	19.07	105	11057784	263.138	ug/L	95
78)	1,3-dichlorobenzeneV	19.33	146	5869211	289.393	ug/L	98
79)	p-isopropyltoluene	19.20	119	9495059	266.625	ug/L	95
80)	1,4-dichlorobenzeneV	19.43	146	5795670	280.217	ug/L	95
81)	1,2-dichlorobenzeneV	19.79	146	5546151	288.698	ug/L	96
82)	n-butylbenzene	19.59	91	8238948	268.529	ug/L	95
84)	1,2-dibromo-3-chloropropan	20.52	157	675015	363.995	ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	4004204	343.171	ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	3606681	378.452	ug/L	97
87)	hexachlorobutadieneV	21.57	225	1626693	356.819	ug/L	96
88)	naphthaleneV	21.77	128	8904734	362.198	ug/L	99
89)	1,2,3-trichlorobenzV	22.06	180	3179709	385.639	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:43 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57:01 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

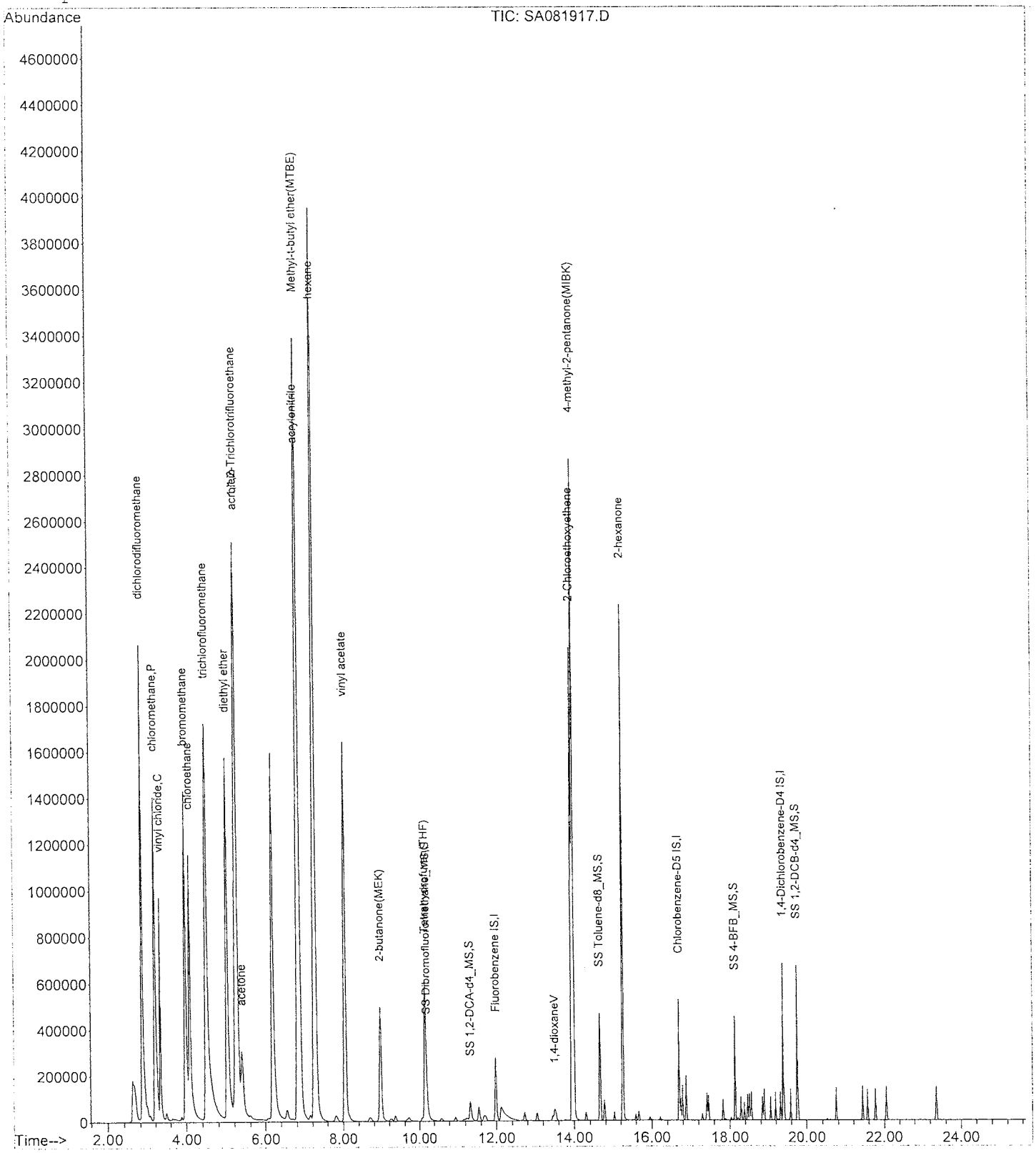
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	365026	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	289748	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	151171	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84441	12.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.32%#			
35) SS 1,2-DCA-d4_MS	11.33	65	100614	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.60%#			
48) SS Toluene-d8_MS	14.65	98	367488	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.77%#			
65) SS 4-BFB_MS	18.13	95	145238	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	149858	12.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.82%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	3136326	315.458	ug/L	100
3) chloromethane	3.18	50	2741981	266.712	ug/L	100
4) vinyl chloride	3.32	62	1081763	274.863	ug/L	99
5) bromomethane	3.98	94	1770569	301.862	ug/L	99
6) chloroethane	4.09	64	1619597	261.906	ug/L	99
7) trichlorofluoromethane	4.50	101	3572269	273.858	ug/L	99
8) diethyl ether	5.02	59	1883432	297.751	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.25	101	2408761	312.145	ug/L	95
10) acrolein	5.27	56	202421	269.842	ug/L	98
11) acetone	5.40	43	583196	294.013	ug/L	94
17) acrylonitrile	6.82	53	1052204	341.023	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	6841158	382.281	ug/L #	94
20) hexane	7.27	57	4092546	434.263	ug/L	97
22) vinyl acetate	8.05	43	4142786	319.672	ug/L	99
27) 2-butanone(MEK)	8.97	43	1123141	392.972	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	764350	413.421	ug/L	100
41) 1,4-dioxaneV	13.50	88	56897	800.639	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	979465	340.252	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	973665	385.220	ug/L	92
52) 2-hexanone	15.25	43	1616710	398.367	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58:02 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

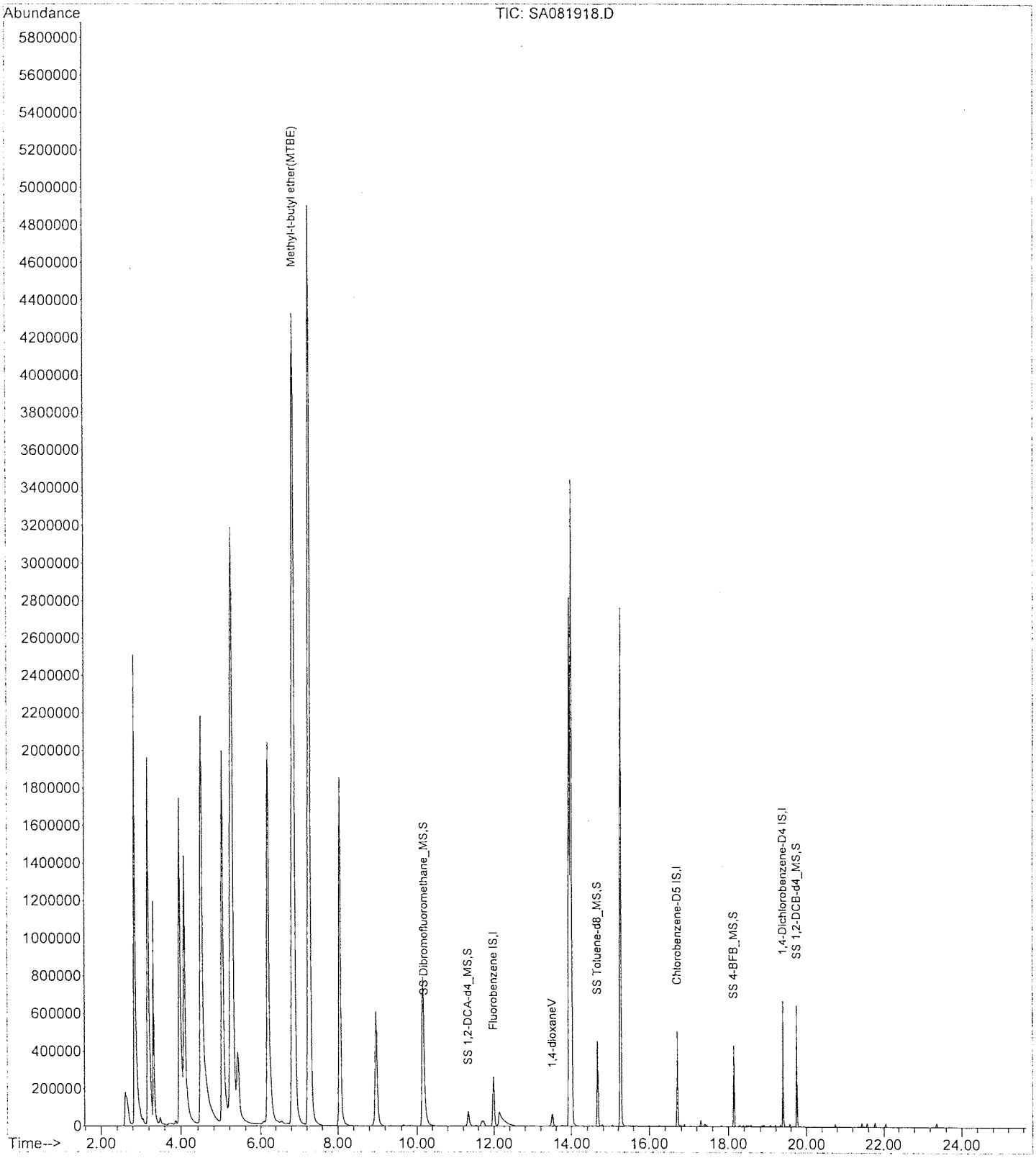
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352067	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282826	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	146980	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.19	111	81596	12.05	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.54%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98326	12.42	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.22%#			
48) SS Toluene-d8_MS	14.65	98	355856	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.75%#			
65) SS 4-BFB_MS	18.13	95	141765	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	146942	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.89%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.86	73	8686728	503.277	ug/L #	94
41) 1,4-dioxaneV	13.50	88	76339	1113.761	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

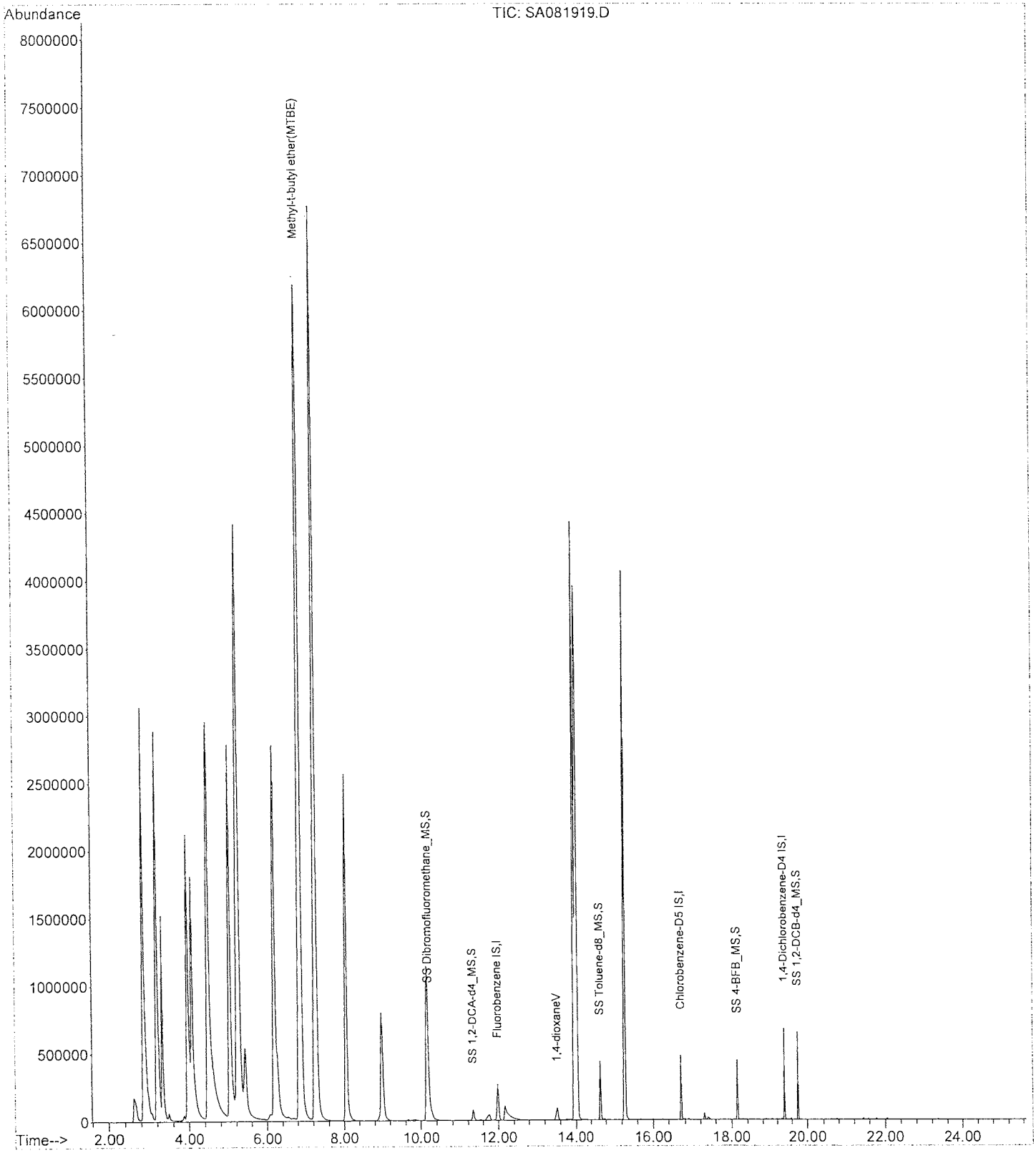
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356279	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	285578	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	147736	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79805	11.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 116.50%			
35) SS 1,2-DCA-d4_MS	11.33	65	97661	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.66	98	357402	12.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.06%#			
65) SS 4-BFB_MS	18.14	95	141951	13.34	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.42%#			
83) SS 1,2-DCB-d4_MS	19.76	152	148035	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.18%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.87	73	12562050	719.195	ug/L #	94
41) 1,4-dioxaneV	13.52	88	116549	1680.309	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	101	0.00
2		dichlorodifluoromethane	20.000	10.905 ↓	45.5#	60	0.00
3	P	chloromethane	20.000	14.534 ↓	27.3#	80	0.00
4	C	vinyl chloride	20.000	15.953	20.2#	85	0.01
5		bromomethane	20.000	17.157	14.2	93	0.02
6		chloroethane	20.000	17.506	12.5	94	0.02
7		trichlorofluoromethane	20.000	17.078	14.6	91	0.01
8		diethyl ether	20.000	21.076	-5.4	112	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.172	4.1	102	0.01
10		acrolein	20.000	25.533 ↑	-27.7#	129	0.00
11		acetone	20.000	18.652	6.7	99	-0.02
12	CM	1,1-dichloroethene	20.000	18.246	8.8	94	0.01
13		tert-Butyl Alcohol(TBA)	100.000	92.436 ✓	7.6	95	0.00
14		Iodomethane	20.000	18.505	7.5	114	0.00
15		methylene chloride	20.000	19.740	1.3	98	0.00
16		carbon disulfide	20.000	18.107	9.5	94	0.00
17		acrylonitrile	20.000	17.791 ✓	11.0	94	-0.01
18		Methyl-t-butyl ether(MTBE) 20 ~~40~~.000		20.236 OK ✓	49.4#	53	-0.01
19		trans-1,2-dichloroethene	20.000	19.527	2.4	97	0.00
20		hexane	20.000	0.099	99.5#	1	0.00
21		Isopropyl ether(DIPE)	20.000	20.014	-0.1	99	-0.02
22		vinyl acetate	20.000	11.121 ↓	44.4#	56	0.00
23	P	1,1-dichloroethane	20.000	19.586	2.1	96	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	101	-0.01
25		2,2-dichloropropane	20.000	20.710	-3.6	99	0.00
26		cis-1,2-dichloroethene	20.000	21.297	-6.5	104	0.00
27		2-butanone(MEK)	20.000	18.212	8.9	103	-0.02
28		bromochloromethane	20.000	19.554	2.2	99	0.00
29		Tetrahydrofuran(THF)	20.000	19.171	4.1	104	0.00
30	C	chloroform	20.000	19.390	3.0	97	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.126	-1.3	101	0.00
32		1,1,1-trichloroethane	20.000	19.826	0.9	98	0.00
33		carbon tetrachloride	20.000	19.884	0.6	97	0.00
34		1,1-dichloropropene	20.000	18.723	6.4	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.888	1.1	100	0.00
36		tert-amyl methyl ether(TAME	20.000	20.530	-2.7	103	-0.02
37	M	benzene	20.000	20.251	-1.3	99	-0.01
38		1,2-dichloroethane	20.000	19.390	3.0	94	-0.01
39	M	trichloroethene	20.000	18.635	6.8	97	0.00
40	C	1,2-dichloropropane	20.000	20.058 ✓	-0.3	99	0.00
41		1,4-dioxaneV 20 ~~40~~.000		25.614 OK	36.0#	59	-0.02
42		dibromomethane	20.000	19.717	1.4	99	0.00
43		bromodichloromethane	20.000	19.342	3.3	96	0.00
44		2-Chloroethoxyethene	20.000	27.375 ↑	-36.9#	236	0.00
45		4-methyl-2-pentanone(MIBK)	20.000	19.509	2.5	105	-0.02
46		cis-1,3-dichloropropene	20.000	22.074	-10.4	108	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	102	0.00
48	S	SS Toluene-d8_MS	10.000	9.889	1.1	101	0.00
49	CM	toluene	20.000	20.389	-1.9	99	-0.01
50		trans-1,3-dichloropropene	20.000	20.612	-3.1	100	0.00
51		1,1,2-trichloroethane	20.000	19.927	0.4	101	0.00
52		2-hexanone	20.000	19.470	2.7	107	-0.02
53		tetrachloroethene	20.000	19.990	0.1	103	0.00
54		1,3-dichloropropane	20.000	19.175	4.1	100	0.00
55		dibromochloromethane	20.000	18.485	7.6	101	0.00
56		1,2-dibromoethane	20.000	19.837	0.8	99	0.00

Probable Solution degradation, Reanalyze.

57	PM	chlorobenzene	20.000	19.917		0.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.283		-6.4	99	0.00
59	C	ethylbenzene	20.000	20.418		-2.1	99	-0.01
60		mp-xylene	40.000	39.722		0.7	99	-0.01
61		o-xylene	20.000	20.551		-2.8	99	-0.01
62		styrene	20.000	21.494		-7.5	101	-0.01
63	P	bromoform	20.000	18.485		7.6	106	0.00
64		iso-propylbenzene	20.000	22.658		-13.3	107	0.00
65	S	SS 4-BFB_MS	10.000	10.014		-0.1	102	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000		0.0	102	0.00
67		bromobenzene	20.000	19.813		0.9	98	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.994		0.0	98	0.00
69		1,2,3-trichloropropane	20.000	19.110		4.5	97	-0.01
70		trans-1,4-dichloro-2-butene	20.000	36.509		-82.5#	206	-0.02
71		n-propylbenzene	20.000	21.322		-6.6	100	-0.01
72		2-chlorotoluene	20.000	20.019		-0.1	97	-0.01
73		4-chlorotoluene	20.000	20.690		-3.5	98	-0.01
74		1,3,5-trimethylbenzene	20.000	20.898		-4.5	99	-0.01
75		tert-butylbenzene	20.000	20.674		-3.4	98	-0.01
76		1,2,4-trimethylbenzene	20.000	20.872		-4.4	98	-0.01
77		sec-butylbenzene	20.000	21.027		-5.1	98	0.00
78		1,3-dichlorobenzeneV	20.000	20.415		-2.1	98	0.00
79		p-isopropyltoluene	20.000	21.613		-8.1	99	0.00
80		1,4-dichlorobenzeneV	20.000	20.570		-2.9	99	-0.01
81		1,2-dichlorobenzeneV	20.000	20.087		-0.4	97	0.00
82		n-butylbenzene	20.000	21.377		-6.9	98	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.086		-0.9	103	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.813		5.9	105	0.00
85		1,3,5-trichlorobenzV	20.000	20.881		-4.4	102	0.00
86		1,2,4-trichlorobenzV	20.000	19.953		0.2	99	-0.01
87		hexachlorobutadieneV	20.000	18.435		7.8	95	-0.01
88		naphthaleneV	20.000	20.212		-1.1	98	-0.01
89		1,2,3-trichlorobenzV	20.000	19.789		1.1	99	-0.01
90	S	SS 2,5-DBT_MS	20.000	2.735		86.3#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

SA081909.D 5VID0819.M Fri Aug 23 12:47:55 2013

8/23/13

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334400	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268265	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	144317	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79776	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.26%			
35) SS 1,2-DCA-d4_MS	11.33	65	93014	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.88%			
48) SS Toluene-d8_MS	14.65	98	336585	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.89%			
65) SS 4-BFB_MS	18.13	95	133430	10.01	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.14%			
83) SS 1,2-DCB-d4_MS	19.75	152	145311	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.86%			
90) SS 2,5-DBT_MS	23.36	250	124	2.73	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.84%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	116230	10.905	ug/L	99
3) chloromethane	3.19	50	138142	14.534	ug/L	100
4) vinyl chloride	3.34	62	68399	15.953	ug/L	100
5) bromomethane	3.99	94	87185	17.157	ug/L	97
6) chloroethane	4.11	64	102536	17.506	ug/L	98
7) trichlorofluoromethane	4.52	101	214528	17.078	ug/L	99
8) diethyl ether	5.02	59	138702	21.076	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	166080	19.172	ug/L	99
10) acrolein	5.27	56	17833	25.533	ug/L	97
11) acetone	5.39	43	37928	18.652	ug/L	98
12) 1,1-dichloroethene	5.61	96	151012	18.246	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65776	92.436	ug/L	97
14) Iodomethane	6.20	142	209619	18.505	ug/L #	99
15) methylene chloride	6.55	84	172986	19.740	ug/L	100
16) carbon disulfide	6.57	76	450197	18.107	ug/L	98
17) acrylonitrile	6.82	53	64549	17.791	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	466669	20.236	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	174070	19.527	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	619163	20.014	ug/L	99
22) vinyl acetate	8.05	43	176494	11.121	ug/L	99
23) 1,1-dichloroethane	8.05	63	321728	19.586	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.68	59	554843	20.305	ug/L	99
25) 2,2-dichloropropane	9.25	77	257500	20.710	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	273762	21.297	ug/L	95
27) 2-butanone(MEK)	8.96	43	68155	18.212	ug/L	99
28) bromochloromethane	10.08	128	92247	19.554	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	48249	19.171	ug/L	95
30) chloroform	9.71	83	307364	19.390	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	262832	19.826	ug/L	99
33) carbon tetrachloride	11.17	117	225536	19.884	ug/L	99
34) 1,1-dichloropropene	10.96	75	244506	18.723	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	492528	20.530	ug/L #	57
37) benzene	11.55	78	757808	20.251	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081923.D 5VID0819.M Fri Aug 23 12:55:02 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

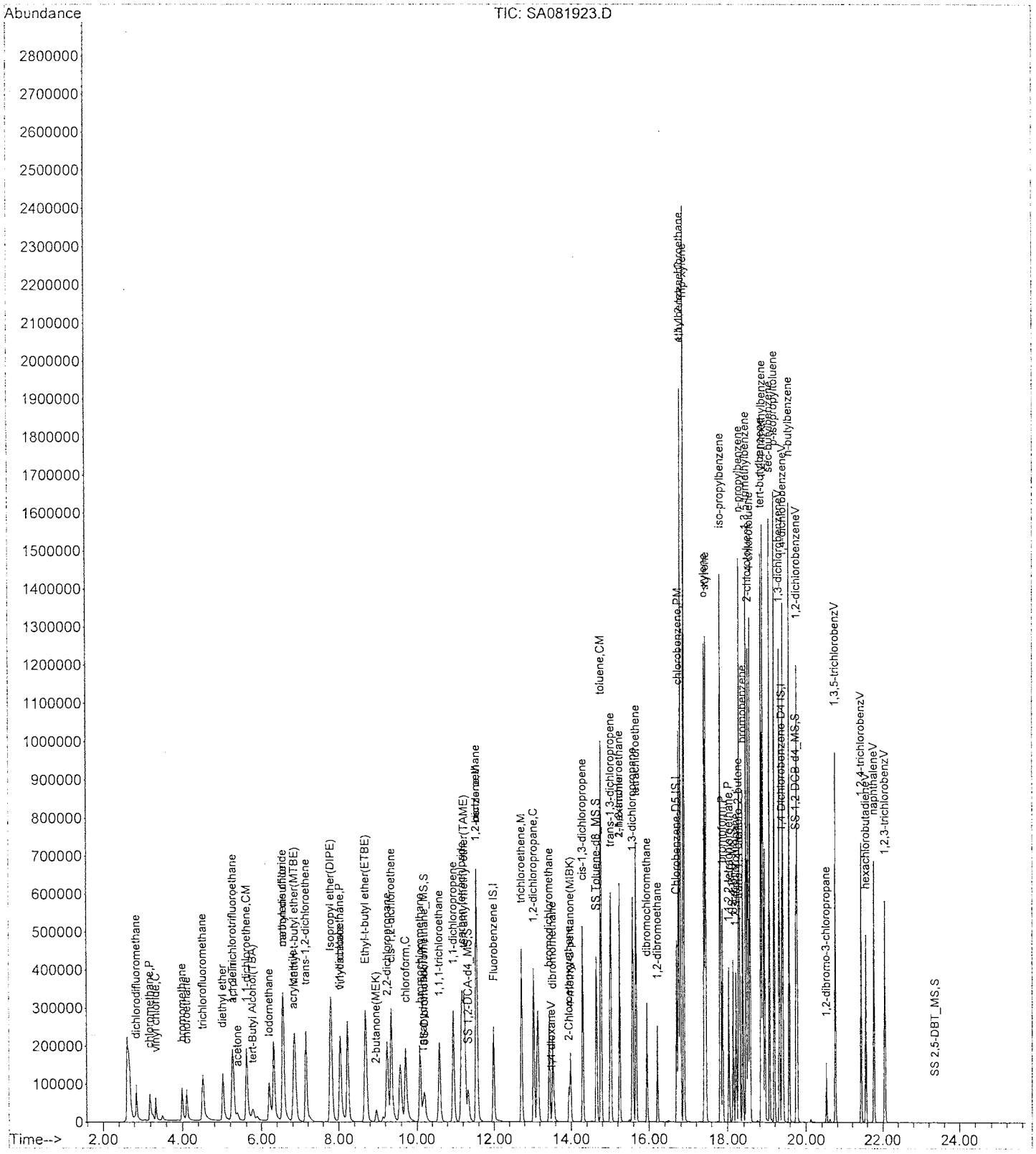
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	245366	19.390	ug/L		100
39)	trichloroethene	12.73	95	188390	18.635	ug/L		99
40)	1,2-dichloropropane	13.05	63	188863	20.058	ug/L		98
41)	1,4-dioxaneV	13.49	88	2327	25.614	ug/L	#	76
42)	dibromomethane	13.53	93	105640	19.717	ug/L		100
43)	bromodichloromethane	13.44	83	217510	19.342	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	41636	27.375	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.98	58	57518	19.509	ug/L		90
46)	cis-1,3-dichloropropene	14.30	75	298540	22.074	ug/L		99
49)	toluene	14.77	91	839732	20.389	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	261583	20.612	ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	129594	19.927	ug/L		98
52)	2-hexanone	15.25	43	101826	19.470	ug/L		99
53)	tetrachloroethene	15.67	166	226693	19.990	ug/L		99
54)	1,3-dichloropropane	15.60	76	275069	19.175	ug/L	#	85
55)	dibromochloromethane	15.95	129	167538	18.485	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	162327	19.837	ug/L		99
57)	chlorobenzene	16.74	112	557786	19.917	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	181536	21.283	ug/L		99
59)	ethylbenzene	16.79	91	963930	20.418	ug/L		100
60)	mp-xylene	16.89	106	775350	39.722	ug/L		99
61)	o-xylene	17.41	106	374585	20.551	ug/L		99
62)	styrene	17.46	104	645710	21.494	ug/L		100
63)	bromoform	17.89	173	101459	18.485	ug/L	#	92
64)	iso-propylbenzene	17.83	105	977906	22.658	ug/L		100
67)	bromobenzene	18.38	156	238344	19.813	ug/L		99
68)	1,1,2,2-tetrachloroethane	18.03	83	191862	19.994	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	58533	19.110	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	79254	36.509	ug/L	#	80
71)	n-propylbenzene	18.28	91	1159743	21.322	ug/L		100
72)	2-chlorotoluene	18.51	91	676963	20.019	ug/L		100
73)	4-chlorotoluene	18.56	91	701509	20.690	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	809032	20.898	ug/L		100
75)	tert-butylbenzene	18.84	119	710289	20.674	ug/L		100
76)	1,2,4-trimethylbenzene	18.89	105	823494	20.872	ug/L		99
77)	sec-butylbenzene	19.06	105	1004949	21.027	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	464972	20.415	ug/L		100
79)	p-isopropyltoluene	19.19	119	881827	21.613	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	467337	20.570	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	426411	20.087	ug/L		100
82)	n-butylbenzene	19.58	91	741691	21.377	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	36907	18.813	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	279878	20.881	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	226463	19.953	ug/L		100
87)	hexachlorobutadieneV	21.56	225	93768	18.435	ug/L		99
88)	naphthaleneV	21.76	128	578790	20.212	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	193641	19.789	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

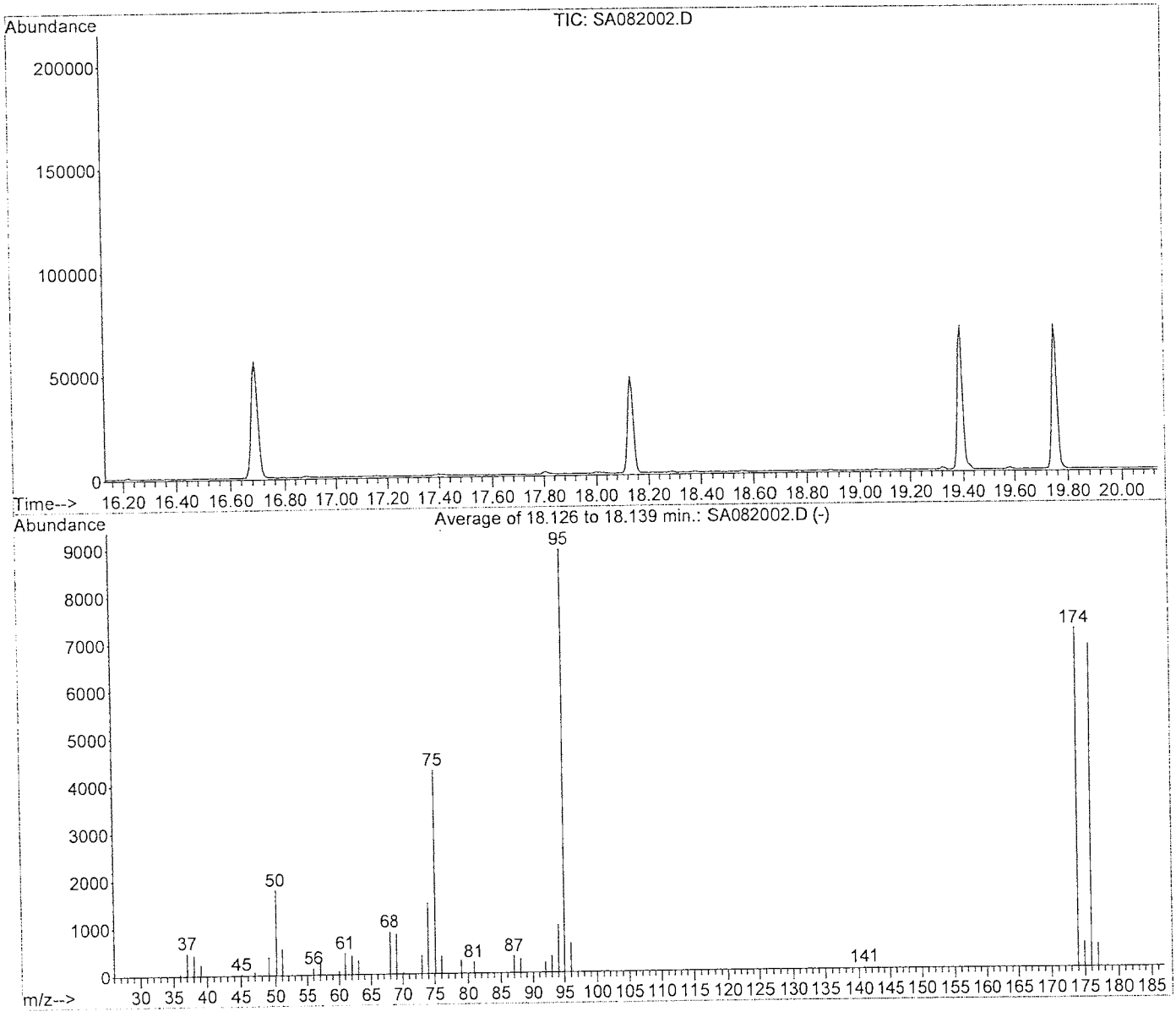


IS/SS ID= V- 4089
Standard ID= V- 4091A
Analyst: Schu
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (6) 4085 (L) (Neco)
Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	9A082001	QAS 20					VOCMS		Second Source		
2		BFB 25ng					VOCMS	5L100819	autoFind		✓
3		STD 10					VOCMS		OK		✓
4		STD 0.5					VOCMS				✓
5		MB		✓			VOCMS				✓
6		123315.01	✓	✓		x1	VOCMS		confirmation		
7		.04	✓	✓			VOCMS				
8		123380.01	✓	✓			VOCMS				
9		123611.14		✓			VOCMS				
10		.15		✓			VOCMS				
11		.16		✓			VOCMS				
12		.17		✓			VOCMS				
13		.18		✓			VOCMS				
14		.19		✓			VOCMS				
15		.20		✓			VOCMS				
16		~~123624.01~~		✓			VOCMS		123315.02 RR bromoform		
17		.02		✓			VOCMS		.03		
18		123668.01		✓			VOCMS		.05		
19		.02		✓			VOCMS		.06		
20		123669.01		✓			VOCMS		.07		
21		~~.02~~		✓			VOCMS		123677.01		
22		LCS 10					VOCMS		OK	✓	✓
23		LCSD 10					VOCMS			✓	✓
							VOCMS				
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							VOCMS				

Samples removed from autosampler, order and pH verified by ✓ ✓ ✓ Schu 8/21/13 1-23

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 12:21 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	1794	PASS
75	95	30	60	48.0	4283	PASS
95	95	100	100	100.0	8920	PASS
96	95	5	9	6.9	619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.1	7146	PASS
175	174	5	9	7.4	529	PASS
176	174	95	101	95.3	6810	PASS
177	176	5	9	7.2	489	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:23:11 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Aug 21 14:21:27 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

New 2nd Source GAS V-4092

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268403	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79209	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.35%			
35) SS 1,2-DCA-d4_MS	11.33	65	96370	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
48) SS Toluene-d8_MS	14.65	98	341573	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.31%			
65) SS 4-BFB_MS	18.13	95	131805	9.89	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.87%			
83) SS 1,2-DCB-d4_MS	19.75	152	139280	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.53%			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	213114 OK	19.560	ug/L	100
3) chloromethane	3.20	50	198329	20.412	ug/L	100
4) vinyl chloride	3.34	62	96161	22.155	ug/L	100
5) bromomethane	3.99	94	101759	19.589	ug/L	98
6) chloroethane	4.11	64	118267	19.752	ug/L	98
7) trichlorofluoromethane	4.52	101	241706	18.822	ug/L	99
10) acrolein	5.27	56	17657	24.730	ug/L	96
11) acetone	5.38	43	40059	19.271	ug/L	99
22) vinyl acetate	8.05	43	184735 V	11.387	ug/L	99
27) 2-butanone(MEK)	8.96	43	68939	18.020	ug/L	99
45) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.285	ug/L	89
52) 2-hexanone	15.25	43	102376	19.565	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082001.D 5VID0819.M Wed Aug 21 14:24:43 2013

bsm 8/21/13

Eastern Analytical, Inc.
professional laboratory & drilling services

123650
VOC 8260B
Support Data

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (62) 4085 (2)

Analyst: Blue

Date: 8/23/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082301	BFB					VOCMS	SV1D0819	AutoFind		✓
2	"	STD20					VOCMS	"	Acrolein ↑		✓
3	"	STD2					VOCMS	"			✓
4	"	MB					VOCMS	"			✓
5	"	123650.03		✓		x1	VOCMS	"			
6	"	" .04		✓		"	VOCMS	"			
7	"	" .05		✓		"	VOCMS	"			
8	"	123705.09		✓		"	VOCMS	"			
9	"	123612.05	✓	✓		x5	VOCMS	"			
10	"	LCS20					VOCMS	"			✓
11	"	LCSD20					VOCMS	"			✓
12	"	BFB25ng					VOCMS	SV1D0819	AutoFind		✓
13	"	STD10					VOCMS	"			✓
14	"	STD0.5					VOCMS	"			✓
15	"	MB					VOCMS	"			✓
16	"	123624.01		✓		x1	VOCMS	"			
17	"	" .02		✓		"	VOCMS	"			
18	"	123705.01		✓		"	VOCMS	"			
19	"	" .02		✓		"	VOCMS	"			
20	"	" .03		✓		"	VOCMS	"			
21	"	" .04		✓		"	VOCMS	"			
22	"	" .05		✓		"	VOCMS	"			
23	"	" .06		✓		"	VOCMS	"			
24	"	" .07		✓		"	VOCMS	"			
25	"	" .08		✓		"	VOCMS	"			
26	"	123792.01		✓		"	VOCMS	"			
27	"	123793.01		✓		"	VOCMS	"			
28	"	" .02		✓		"	VOCMS	"			
29	"	123767.01		✓		"	VOCMS	"			
30	"	" .02		✓		"	VOCMS	"			
31	"	123788.01		✓		"	VOCMS	"			
32	"	LCS10					VOCMS	"		✓	✓
33	"	LCSD10					VOCMS	"		✓	✓
							~~VOCMS~~				
							VOCMS				
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							~~VOCMS~~				

✓ ✓ ✓

Samples removed from autosampler, order and pH verified by Blue 8/26/13 1-33

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082301.D
Tune Time : 23 Aug 2013 7:47 am

Daily Calibration File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082302.D

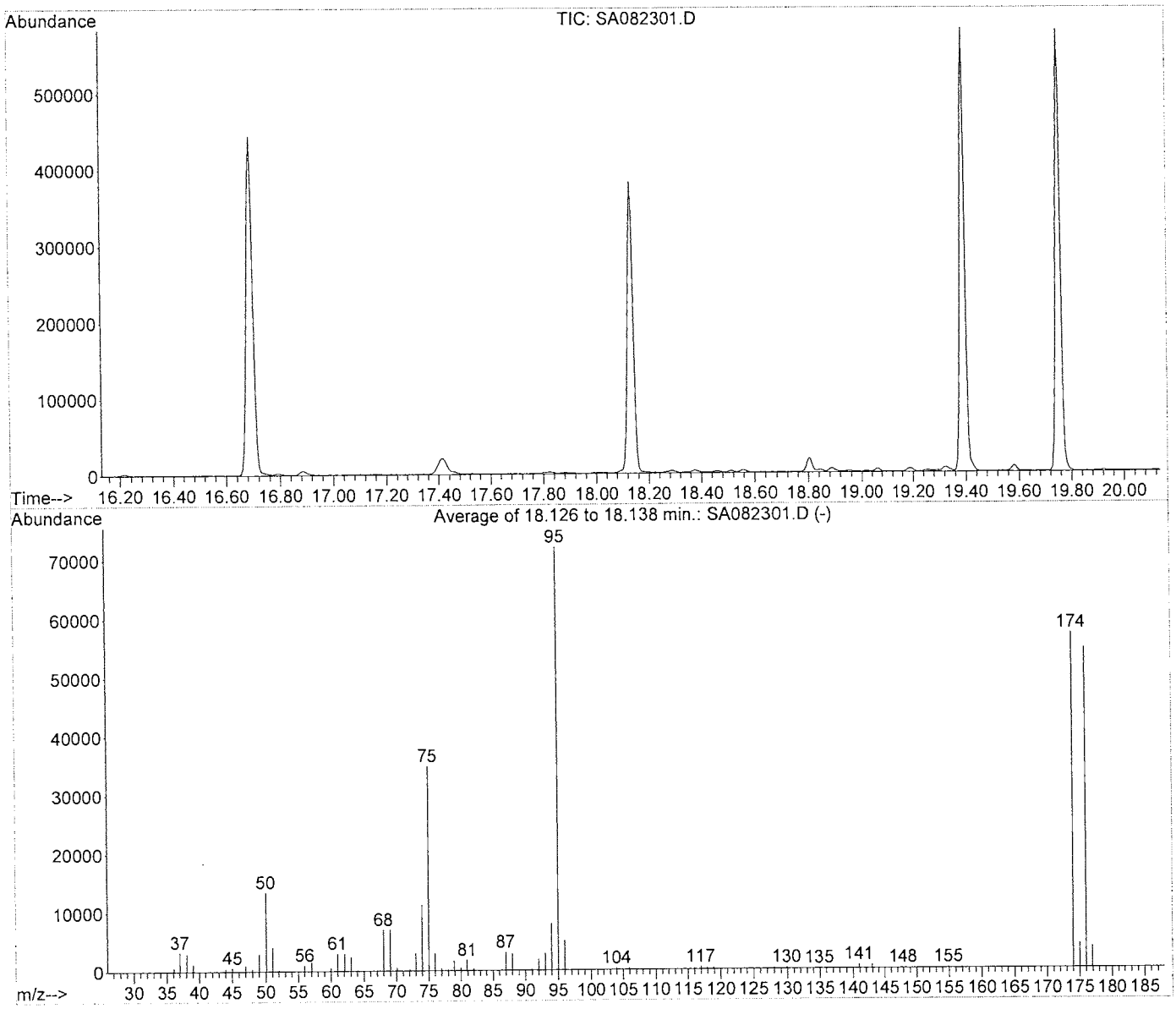
						303003	246947	131632

File	Sample	Surrogate Recovery %				Internal Standard Responses		
SA082301.D	BFB	100	100	99	98	307095	248039	129476
		100	0*					
SA082302.D	STD 20	101	98	98	100	303003	246947	131632
		101	47*					
SA082303.D	STD 2	99	100	99	100	310827	249684	131291
		101	11*					
SA082304.D	MB	98	100	99	98	311185	248808	127553
		102	7*					
SA082305.D	123650.03	99	100	98	98	302073	244096	125774
		101	0*					
SA082306.D	123650.04	100	102	98	98	297357	239164	123235
		102	0*					
SA082307.D	123650.05	100	101	98	97	295318	238157	121404
		102	0*					
SA082308.D	123705.09	99	103	98	97	301930	245327	125627
		102	0*					
SA082309.D	123612.05	98	102	98	98	300641	243245	125916
		102	0*					
SA082310.D	LCS 20	103	98	98	100	299596	246012	132098
		101	0*					
SA082311.D	LCSD 20	101	98	98	99	308392	255451	136135
		100	0*					

t - fails 12hr time check * - fails criteria

Created: Wed Sep 04 10:43:41 2013 VOAMS5

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082301.D Vial: 1
Acq On : 23 Aug 2013 7:47 am Operator: BAM
Sample : BFB Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2713

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	13479	PASS
75	95	30	60	48.4	34901	PASS
95	95	100	100	100.0	72042	PASS
96	95	5	9	7.0	5045	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.1	56968	PASS
175	174	5	9	7.3	4156	PASS
176	174	95	101	95.5	54405	PASS
177	176	5	9	6.7	3651	PASS

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	91	0.00
2		dichlorodifluoromethane	20.000	18.474	7.6	92	0.00
3	P	chloromethane	20.000	19.243	3.8	96	0.00
4	C	vinyl chloride	20.000	22.055	-10.3	105	0.01
5		bromomethane	20.000	20.302	-1.5	100	0.02
6		chloroethane	20.000	20.050	-0.3	97	0.02
7		trichlorofluoromethane	20.000	20.001	-0.0	96	0.01
8		diethyl ether	20.000	19.503	2.5	94	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.892	0.5	96	0.01
10		acrolein	20.000	24.110	-20.5#	110	0.00
11		acetone	20.000	19.132	4.3	92	-0.02
12	CM	1,1-dichloroethene	20.000	19.001	5.0	88	0.01
13		tert-Butyl Alcohol(TBA)	100.000	96.573	3.4	90	0.00
14		Iodomethane	20.000	17.668	11.7	99	0.00
15		methylene chloride	20.000	19.688	1.6	89	0.00
16		carbon disulfide	20.000	19.543	2.3	91	0.01
17		acrylonitrile	20.000	21.406	-7.0	103	-0.01
18		Methyl-t-butyl ether(MTBE)	40.000	40.092	-0.2	95	-0.01
19		trans-1,2-dichloroethene	20.000	20.784	-3.9	93	0.00
20		hexane	20.000	21.147	-5.7	102	0.00
21		Isopropyl ether(DIPE)	20.000	20.951	-4.8	94	-0.02
22		vinyl acetate	20.000	21.528	-7.6	99	0.00
23	P	1,1-dichloroethane	20.000	20.992	-5.0	94	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	92	0.00
25		2,2-dichloropropane	20.000	20.520	-2.6	89	0.00
26		cis-1,2-dichloroethene	20.000	20.950	-4.7	93	0.00
27		2-butanone(MEK)	20.000	19.715	1.4	101	-0.02
28		bromochloromethane	20.000	20.470	-2.3	94	0.00
29		Tetrahydrofuran(THF)	20.000	20.159	-0.8	99	-0.01
30	C	chloroform	20.000	20.219	-1.1	91	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.089	-0.9	91	0.00
32		1,1,1-trichloroethane	20.000	19.809	1.0	89	0.00
33		carbon tetrachloride	20.000	20.108	-0.5	89	0.00
34		1,1-dichloropropene	20.000	20.601	-3.0	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.771	2.3	89	0.00
36		tert-amyl methyl ether(TAME	20.000	20.448	-2.2	93	-0.01
37	M	benzene	20.000	21.170	-5.9	94	-0.01
38		1,2-dichloroethane	20.000	20.514	-2.6	91	-0.01
39	M	trichloroethene	20.000	19.611	1.9	92	0.00
40	C	1,2-dichloropropane	20.000	21.302	-6.5	95	0.00
41		1,4-dioxaneV	40.000	47.365	-18.4	99	-0.03
42		dibromomethane	20.000	20.699	-3.5	94	0.00
43		bromodichloromethane	20.000	20.042	-0.2	90	0.00
44		2-Chloroethoxyethene	20.000	19.173	4.1	129	-0.01
45		4-methyl-2-pentanone(MIBK)	20.000	20.768	-3.8	102	-0.01
46		cis-1,3-dichloropropene	20.000	20.909	-4.5	92	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	94	0.00
48	S	SS Toluene-d8_MS	10.000	9.831	1.7	92	0.00
49	CM	toluene	20.000	20.875	-4.4	94	-0.01
50		trans-1,3-dichloropropene	20.000	20.458	-2.3	92	0.00
51		1,1,2-trichloroethane	20.000	20.305	-1.5	94	0.00
52		2-hexanone	20.000	19.914	0.4	100	-0.02
53		tetrachloroethene	20.000	19.102	4.5	91	0.00
54		1,3-dichloropropane	20.000	19.599	2.0	94	0.00
55		dibromochloromethane	20.000	18.202	9.0	91	-0.01
56		1,2-dibromoethane	20.000	20.279	-1.4	94	0.00

57	PM	chlorobenzene	20.000	20.671	-3.4	93	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.469	-7.3	92	0.00
59	C	ethylbenzene	20.000	20.861	-4.3	93	-0.01
60		mp-xylene	40.000	40.849	-2.1	94	-0.01
61		o-xylene	20.000	20.995	-5.0	93	-0.01
62		styrene	20.000	21.330	-6.6	92	-0.01
63	P	bromoform	20.000	16.902	15.5	88	0.00
64		iso-propylbenzene	20.000	21.423	-7.1	93	0.00
65	S	SS 4-BFB_MS	10.000	10.036	-0.4	94	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000	0.0	93	0.00
67		bromobenzene	20.000	20.607	-3.0	93	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	21.071	-5.4	94	0.00
69		1,2,3-trichloropropane	20.000	20.265	-1.3	93	-0.01
70		trans-1,4-dichloro-2-butene	20.000	18.112	9.4	91	-0.02
71		n-propylbenzene	20.000	21.796	-9.0	93	-0.01
72		2-chlorotoluene	20.000	20.794	-4.0	91	-0.01
73		4-chlorotoluene	20.000	21.207	-6.0	92	-0.01
74		1,3,5-trimethylbenzene	20.000	21.479	-7.4	93	-0.01
75		tert-butylbenzene	20.000	21.484	-7.4	93	-0.01
76		1,2,4-trimethylbenzene	20.000	21.687	-8.4	93	-0.01
77		sec-butylbenzene	20.000	21.880	-9.4	93	0.00
78		1,3-dichlorobenzeneV	20.000	20.955	-4.8	92	0.00
79		p-isopropyltoluene	20.000	22.158	-10.8	93	0.00
80		1,4-dichlorobenzeneV	20.000	20.909	-4.5	92	-0.01
81		1,2-dichlorobenzeneV	20.000	20.905	-4.5	92	-0.01
82		n-butylbenzene	20.000	22.393	-12.0	94	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.088	-0.9	94	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.728	6.4	95	0.00
85		1,3,5-trichlorobenzV	20.000	21.029	-5.1	94	0.00
86		1,2,4-trichlorobenzV	20.000	20.939	-4.7	95	-0.01
87		hexachlorobutadieneV	20.000	19.911	0.4	93	-0.01
88		naphthaleneV	20.000	21.413	-7.1	94	-0.01
89		1,2,3-trichlorobenzV	20.000	20.740	-3.7	94	-0.01
90	S	SS 2,5-DBT_MS	20.000	18.747	6.3	92	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SA081909.D 5VID0819.M Tue Aug 27 10:08:41 2013

Evaluate Continuing Calibration Report

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	1.000	1.000	0.0	91	0.00
2		dichlorodifluoromethane	0.319	0.294	7.8	92	0.00
3	P	chloromethane	0.284	0.273	3.9	96	0.00
4	C	vinyl chloride	0.149	0.140	6.0	105	0.01
5		bromomethane	0.152	0.154	-1.3	100	0.02
6		chloroethane	0.175	0.176	-0.6	97	0.02
7		trichlorofluoromethane	0.376	0.376	0.0	96	0.01
8		diethyl ether	0.197	0.192	2.5	94	0.00
9		1,1,2-Trichlorotrifluoroeth	0.259	0.258	0.4	96	0.01
10		acrolein	0.021	0.025	-19.0	110	0.00
11		acetone	0.061	0.058	4.9	92	-0.02
12	CM	1,1-dichloroethene	0.247	0.235	4.9	88	0.01
13		tert-Butyl Alcohol(TBA)	0.021	0.021	0.0	90	0.00
14		Iodomethane	0.275	0.299	-8.7	99	0.00
15		methylene chloride	0.262	0.258	1.5	89	0.00
16		carbon disulfide	0.744	0.727	2.3	91	0.01
17		acrylonitrile	0.108	0.116	-7.4	103	-0.01
18		Methyl-t-butyl ether(MTBE)	0.690	0.691	-0.1	95	-0.01
19		trans-1,2-dichloroethene	0.267	0.277	-3.7	93	0.00
20		hexane	0.413	0.436	-5.6	102	0.00
21		Isopropyl ether(DIPE)	0.925	0.969	-4.8	94	-0.02
22		vinyl acetate	0.475	0.511	-7.6	99	0.00
23	P	1,1-dichloroethane	0.491	0.516	-5.1	94	0.00
24		Ethyl-t-butyl ether(ETBE)	0.817	0.830	-1.6	92	0.00
25		2,2-dichloropropane	0.372	0.381	-2.4	89	0.00
26		cis-1,2-dichloroethene	0.384	0.403	-4.9	93	0.00
27		2-butanone(MEK)	0.112	0.110	1.8	101	-0.02
28		bromochloromethane	0.141	0.144	-2.1	94	0.00
29		Tetrahydrofuran(THF)	0.075	0.076	-1.3	99	-0.01
30	C	chloroform	0.474	0.479	-1.1	91	0.00
31	S	SS Dibromofluoromethane_MS	0.236	0.238	-0.8	91	0.00
32		1,1,1-trichloroethane	0.396	0.393	0.8	89	0.00
33		carbon tetrachloride	0.339	0.341	-0.6	89	0.00
34		1,1-dichloropropene	0.391	0.402	-2.8	92	0.00
35	S	SS 1,2-DCA-d4_MS	0.281	0.275	2.1	89	0.00
36		tert-amyl methyl ether(TAME	0.717	0.733	-2.2	93	-0.01
37	M	benzene	1.119	1.185	-5.9	94	-0.01
38		1,2-dichloroethane	0.378	0.388	-2.6	91	-0.01
39	M	trichloroethene	0.302	0.296	2.0	92	0.00
40	C	1,2-dichloropropane	0.282	0.300	-6.4	95	0.00
41		1,4-dioxaneV	0.003	0.003	0.0	99	-0.03
42		dibromomethane	0.160	0.166	-3.8	94	0.00
43		bromodichloromethane	0.336	0.337	-0.3	90	0.00
44		2-Chloroethoxyethene	0.041	0.037	9.8	129	-0.01
45		4-methyl-2-pentanone(MIBK)	0.088	0.092	-4.5	102	-0.01
46		cis-1,3-dichloropropene	0.404	0.423	-4.7	92	0.00
47	I	Chlorobenzene-D5 IS	1.000	1.000	0.0	94	0.00
48	S	SS Toluene-d8_MS	1.269	1.247	1.7	92	0.00
49	CM	toluene	1.535	1.602	-4.4	94	-0.01
50		trans-1,3-dichloropropene	0.473	0.484	-2.3	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		1,1,2-trichloroethane	0.242	0.246	-1.7	94	0.00
52		2-hexanone	0.195	0.194	0.5	100	-0.02
53		tetrachloroethene	0.423	0.404	4.5	91	0.00
54		1,3-dichloropropane	0.535	0.524	2.1	94	0.00
55		dibromochloromethane	0.303	0.307	-1.3	91	-0.01
56		1,2-dibromoethane	0.305	0.309	-1.3	94	0.00
57	PM	chlorobenzene	1.044	1.079	-3.4	93	0.00
58		1,1,1,2-tetrachloroethane	0.318	0.341	-7.2	92	0.00
59	C	ethylbenzene	1.760	1.836	-4.3	93	-0.01
60		mp-xylene	0.728	0.743	-2.1	94	-0.01
61		o-xylene	0.679	0.713	-5.0	93	-0.01
62		styrene	1.120	1.194	-6.6	92	-0.01
63	P	bromoform	0.177	0.172	2.8	88	0.00
64		iso-propylbenzene	1.609	1.723	-7.1	93	0.00
65	S	SS 4-BFB_MS	0.497	0.498	-0.2	94	0.00
66	I	1,4-Dichlorobenzene-D4 IS	1.000	1.000	0.0	93	0.00
67		bromobenzene	0.834	0.859	-3.0	93	0.00
68	P	1,1,2,2-tetrachloroethane	0.665	0.701	-5.4	94	0.00
69		1,2,3-trichloropropane	0.212	0.215	-1.4	93	-0.01
70		trans-1,4-dichloro-2-butene	0.129	0.133	-3.1	91	-0.02
71		n-propylbenzene	3.769	4.107	-9.0	93	-0.01
72		2-chlorotoluene	2.343	2.436	-4.0	91	-0.01
73		4-chlorotoluene	2.349	2.491	-6.0	92	-0.01
74		1,3,5-trimethylbenzene	2.682	2.881	-7.4	93	-0.01
75		tert-butylbenzene	2.381	2.557	-7.4	93	-0.01
76		1,2,4-trimethylbenzene	2.734	2.965	-8.4	93	-0.01
77		sec-butylbenzene	3.312	3.623	-9.4	93	0.00
78		1,3-dichlorobenzeneV	1.578	1.654	-4.8	92	0.00
79		p-isopropyltoluene	2.827	3.132	-10.8	93	0.00
80		1,4-dichlorobenzeneV	1.574	1.646	-4.6	92	-0.01
81		1,2-dichlorobenzeneV	1.471	1.538	-4.6	92	-0.01
82		n-butylbenzene	2.404	2.692	-12.0	94	0.00
83	S	SS 1,2-DCB-d4_MS	0.998	1.007	-0.9	94	0.00
84		1,2-dibromo-3-chloropropane	0.122	0.127	-4.1	95	0.00
85		1,3,5-trichlorobenzV	0.929	0.977	-5.2	94	0.00
86		1,2,4-trichlorobenzV	0.786	0.823	-4.7	95	-0.01
87		hexachlorobutadieneV	0.352	0.351	0.3	93	-0.01
88		naphthaleneV	1.984	2.124	-7.1	94	-0.01
89		1,2,3-trichlorobenzV	0.678	0.703	-3.7	94	-0.01
90	S	SS 2,5-DBT_MS	0.198	0.202	-2.0	92	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA082302.D 5VID0819.M Fri Aug 30 11:59:30 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 08:59:33 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	303003	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	246947	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	131632	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72018	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.89%			
35) SS 1,2-DCA-d4_MS	11.34	65	83290	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.71%			
48) SS Toluene-d8_MS	14.65	98	307996	9.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.31%			
65) SS 4-BFB_MS	18.13	95	123091	10.04	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.36%			
83) SS 1,2-DCB-d4_MS	19.75	152	132569	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.88%			
90) SS 2,5-DBT_MS	23.36	250	53117	18.75	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 46.87%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	178418	18.474	ug/L	99
3) chloromethane	3.19	50	165726	19.243	ug/L	99
4) vinyl chloride	3.34	62	84859	22.055	ug/L	100
5) bromomethane	3.99	94	93480	20.302	ug/L	98
6) chloroethane	4.11	64	106412	20.050	ug/L	98
7) trichlorofluoromethane	4.52	101	227665	20.001	ug/L	99
8) diethyl ether	5.02	59	116301	19.503	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	156133	19.892	ug/L	99
10) acrolein	5.27	56	15258	24.110	ug/L	86
11) acetone	5.38	43	35251	19.132	ug/L	96
12) 1,1-dichloroethene	5.61	96	142494	19.001	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	62268	96.573	ug/L	97
14) Iodomethane	6.20	142	181450	17.668	ug/L #	100
15) methylene chloride	6.55	84	156329	19.688	ug/L	98
16) carbon disulfide	6.57	76	440269	19.543	ug/L	99
17) acrylonitrile	6.82	53	70374	21.406	ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	837786	40.092	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	167880	20.784	ug/L	99
20) hexane	7.28	57	264318	21.147	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	587296	20.951	ug/L	100
22) vinyl acetate	8.05	43	309578	21.528	ug/L	100
23) 1,1-dichloroethane	8.04	63	312447	20.992	ug/L	98
24) Ethyl-t-butyl ether(ETBE)	8.69	59	502750	20.305	ug/L	99
25) 2,2-dichloropropane	9.25	77	231186	20.520	ug/L	100
26) cis-1,2-dichloroethene	9.36	61	244012	20.950	ug/L	98
27) 2-butanone(MEK)	8.96	43	66852	19.715	ug/L	99
28) bromochloromethane	10.08	128	87499	20.470	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	45971	20.159	ug/L	98
30) chloroform	9.71	83	290414	20.219	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	237951	19.809	ug/L	100
33) carbon tetrachloride	11.17	117	206660	20.108	ug/L	99
34) 1,1-dichloropropene	10.96	75	243767	20.601	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	444484	20.448	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA082302.D 5VID0819.M Fri Aug 30 11:56:44 2013

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 08:59:33 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

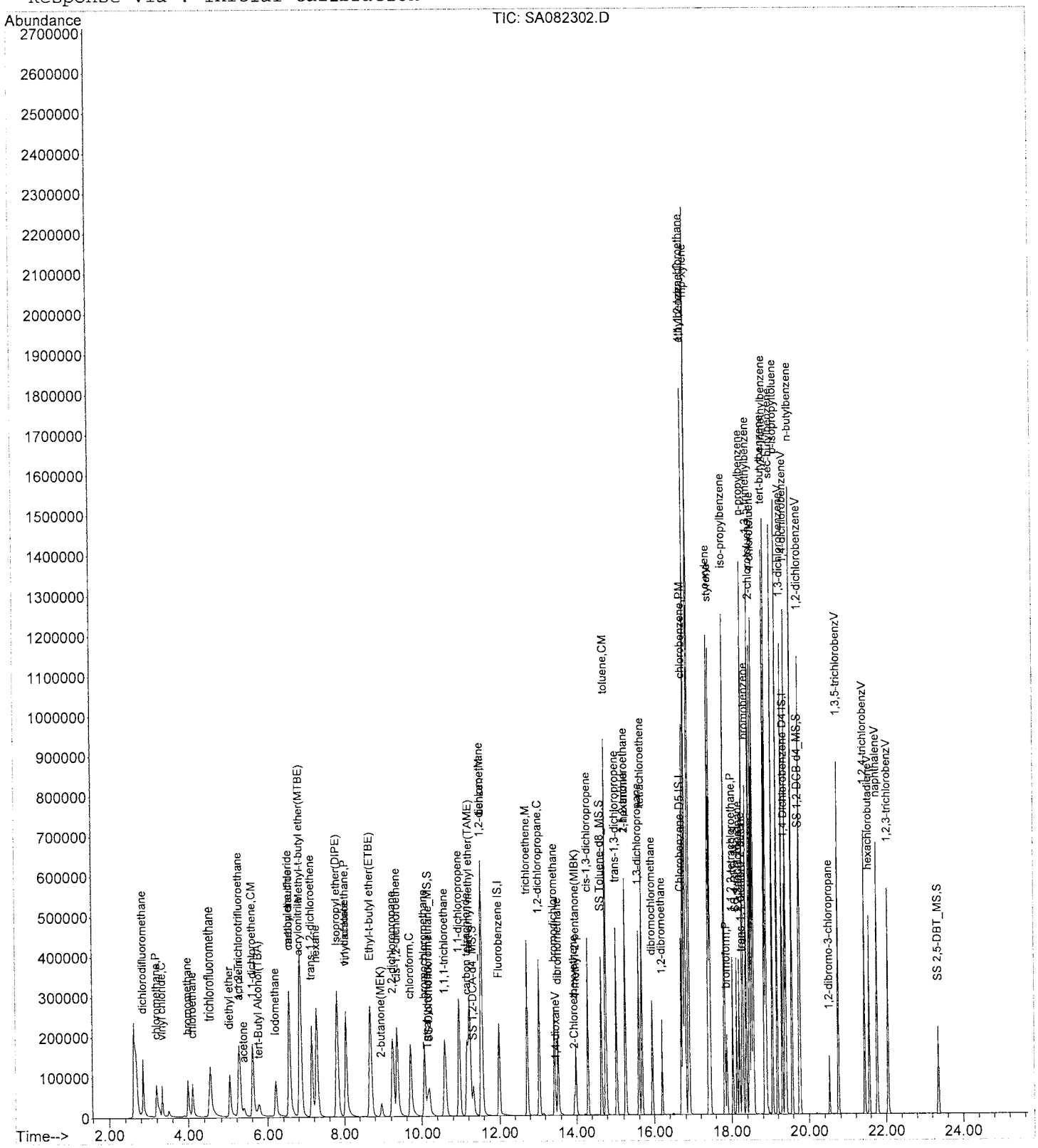
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	benzene	11.55	78	717821	21.170	ug/L		100
38)	1,2-dichloroethane	11.53	62	235213	20.514	ug/L		99
39)	trichloroethene	12.73	95	179642	19.611	ug/L		99
40)	1,2-dichloropropane	13.05	63	181736	21.302	ug/L		98
41)	1,4-dioxaneV	13.48	88	3899	47.365	ug/L		96
42)	dibromomethane	13.53	93	100490	20.699	ug/L		98
43)	bromodichloromethane	13.44	83	204219	20.042	ug/L		100
44)	2-Chloroethoxyethene	13.94	63	22674	19.173	ug/L	#	62
45)	4-methyl-2-pentanone(MIBK)	13.99	58	55481	20.768	ug/L		97
46)	cis-1,3-dichloropropene	14.30	75	256231	20.909	ug/L		99
49)	toluene	14.77	91	791406	20.875	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	239006	20.458	ug/L		99
51)	1,1,2-trichloroethane	15.25	83	121554	20.305	ug/L		99
52)	2-hexanone	15.25	43	95869	19.914	ug/L		100
53)	tetrachloroethene	15.67	166	199410	19.102	ug/L		99
54)	1,3-dichloropropane	15.60	76	258811	19.599	ug/L		99
55)	dibromochloromethane	15.95	129	151813	18.202	ug/L	#	99
56)	1,2-dibromoethane	16.22	107	152757	20.279	ug/L		99
57)	chlorobenzene	16.74	112	532922	20.671	ug/L		100
58)	1,1,1,2-tetrachloroethane	16.79	131	168567	21.469	ug/L		99
59)	ethylbenzene	16.79	91	906559	20.861	ug/L		100
60)	mp-xylene	16.89	106	733981	40.849	ug/L		98
61)	o-xylene	17.41	106	352266	20.995	ug/L		99
62)	styrene	17.46	104	589856	21.330	ug/L		99
63)	bromoform	17.89	173	84761	16.902	ug/L		99
64)	iso-propylbenzene	17.83	105	851135	21.423	ug/L		100
67)	bromobenzene	18.38	156	226109	20.607	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	184421	21.071	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	56615	20.265	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	34915	18.112	ug/L		99
71)	n-propylbenzene	18.28	91	1081320	21.796	ug/L		100
72)	2-chlorotoluene	18.51	91	641361	20.794	ug/L		100
73)	4-chlorotoluene	18.56	91	655828	21.207	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	758416	21.479	ug/L		99
75)	tert-butylbenzene	18.84	119	673221	21.484	ug/L		98
76)	1,2,4-trimethylbenzene	18.89	105	780450	21.687	ug/L		99
77)	sec-butylbenzene	19.06	105	953808	21.880	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	435317	20.955	ug/L		100
79)	p-isopropyltoluene	19.19	119	824577	22.158	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	433271	20.909	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	404776	20.905	ug/L		100
82)	n-butylbenzene	19.58	91	708648	22.393	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	33499	18.728	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	257085	21.029	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	216772	20.939	ug/L		99
87)	hexachlorobutadieneV	21.56	225	92374	19.911	ug/L		99
88)	naphthaleneV	21.76	128	559279	21.413	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	185107	20.740	ug/L		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 8:59 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:20 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	310827	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249684	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	131291	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72395	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.86%			
35) SS 1,2-DCA-d4_MS	11.33	65	87669	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.26%			
48) SS Toluene-d8_MS	14.65	98	312142	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.54%			
65) SS 4-BFB_MS	18.13	95	124036	10.00	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.02%			
83) SS 1,2-DCB-d4_MS	19.75	152	131949	10.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.67%			
90) SS 2,5-DBT_MS	23.36	250	5789	4.45	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 11.14%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	15996	1.615	ug/L	96
3) chloromethane	3.19	50	15806	1.789	ug/L	99
4) vinyl chloride	3.34	62	8864	1.729	ug/L	99
5) bromomethane	3.99	94	9781	2.071	ug/L	91
6) chloroethane	4.12	64	9446	1.735	ug/L	96
7) trichlorofluoromethane	4.52	101	19222	1.646	ug/L	99
8) diethyl ether	5.02	59	10513	1.719	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	13908	1.727	ug/L	99
11) acetone	5.39	43	4191	2.217	ug/L	98
12) 1,1-dichloroethene	5.62	96	15646	2.034	ug/L	97
13) tert-Butyl Alcohol(TBA)	5.78	59	7688	11.623	ug/L	92
14) Iodomethane	6.20	142	10136	0.742	ug/L #	99
15) methylene chloride	6.55	84	21055	2.585	ug/L	97
16) carbon disulfide	6.57	76	55849	2.417	ug/L #	95
17) acrylonitrile	6.82	53	6567	1.947	ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	87087	4.063	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	19155	2.312	ug/L	99
20) hexane	7.28	57	22790	1.777	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	67255	2.339	ug/L	98
22) vinyl acetate	8.05	43	25437	1.724	ug/L	98
23) 1,1-dichloroethane	8.04	63	35981	2.357	ug/L	98
24) Ethyl-t-butyl ether(ETBE)	8.69	59	57762	2.274	ug/L	98
25) 2,2-dichloropropane	9.25	77	24159	2.090	ug/L	96
26) cis-1,2-dichloroethene	9.35	61	28734	2.405	ug/L	98
27) 2-butanone(MEK)	8.97	43	6106	1.755	ug/L #	98
28) bromochloromethane	10.08	128	10205	2.327	ug/L	97
29) Tetrahydrofuran(THF)	10.17	42	4647	1.986	ug/L	93
30) chloroform	9.71	83	33409	2.267	ug/L	98
32) 1,1,1-trichloroethane	10.60	97	25983	2.109	ug/L	99
33) carbon tetrachloride	11.17	117	20729	1.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	27133	2.235	ug/L	99
36) tert-amyl methyl ether(TAM	11.24	73	50188	2.251	ug/L	98
37) benzene	11.55	78	84098	2.418	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:20 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

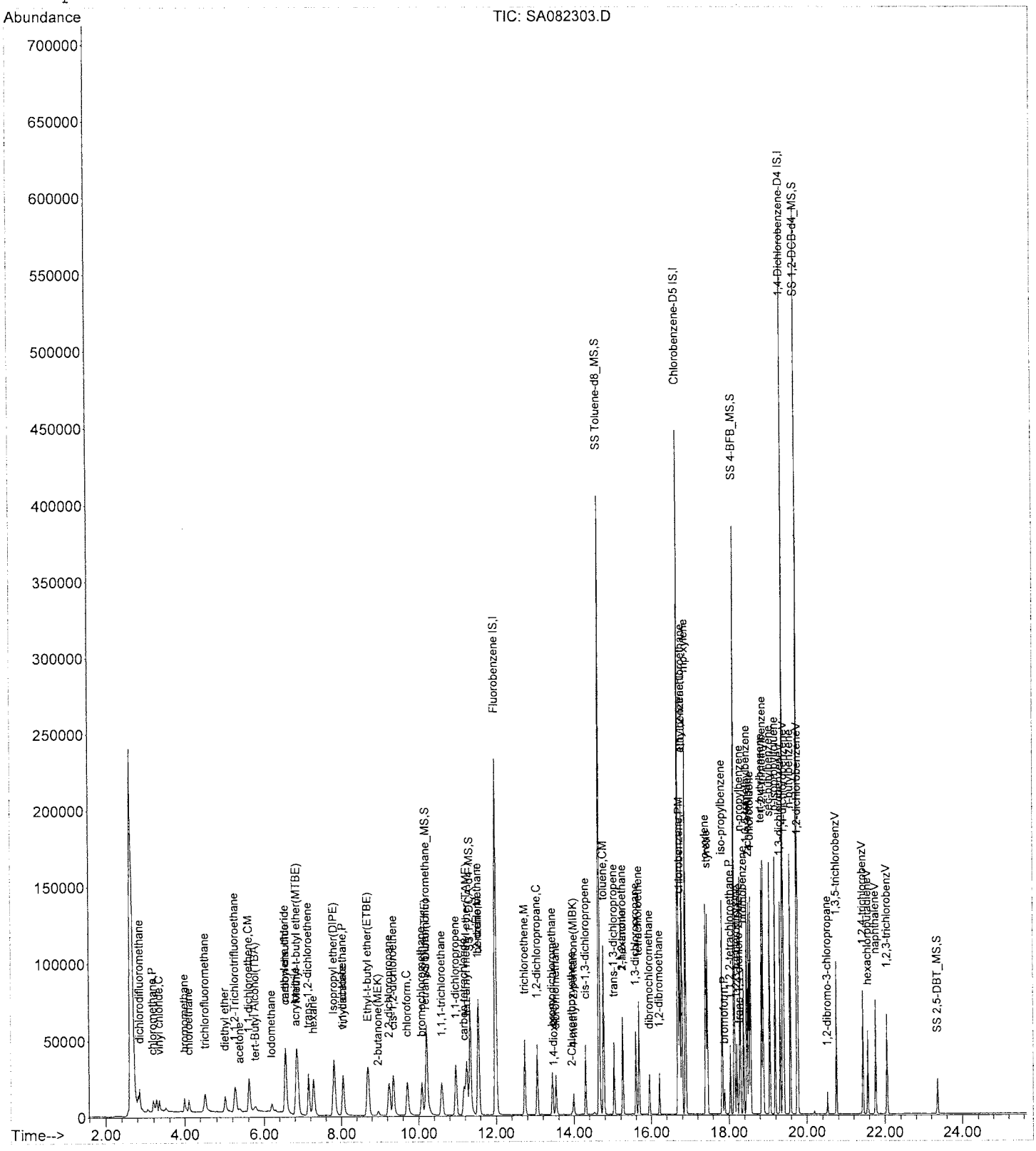
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	28253	2.402 ug/L	99
39) trichloroethene	12.73	95	20668	2.199 ug/L	100
40) 1,2-dichloropropane	13.05	63	20773	2.374 ug/L	98
41) 1,4-dioxaneV	13.48	88	162	1.918 ug/L #	77
42) dibromomethane	13.53	93	11872	2.384 ug/L	96
43) bromodichloromethane	13.44	83	21288	2.037 ug/L	100
44) 2-Chloroethoxyethene	13.94	63	806	6.728 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	4353	1.588 ug/L	98
46) cis-1,3-dichloropropene	14.30	75	26464	2.105 ug/L	99
49) toluene	14.77	91	90966	2.373 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	24104	2.041 ug/L	98
51) 1,1,2-trichloroethane	15.25	83	14139	2.336 ug/L	100
52) 2-hexanone	15.26	43	7969	1.637 ug/L	97
53) tetrachloroethene	15.67	166	22369	2.119 ug/L	98
54) 1,3-dichloropropane	15.59	76	30197	2.262 ug/L	100
55) dibromochloromethane	15.95	129	14243	2.027 ug/L #	100
56) 1,2-dibromoethane	16.22	107	17014	2.234 ug/L	99
57) chlorobenzene	16.74	112	62395	2.394 ug/L	100
58) 1,1,1,2-tetrachloroethane	16.78	131	17207	2.167 ug/L	98
59) ethylbenzene	16.79	91	102061	2.323 ug/L	99
60) mp-xylene	16.89	106	83274	4.584 ug/L	99
61) o-xylene	17.41	106	39945	2.355 ug/L	98
62) styrene	17.46	104	64676	2.313 ug/L	99
63) bromoform	17.89	173	7089	2.654 ug/L	97
64) iso-propylbenzene	17.83	105	93940	2.339 ug/L	100
67) bromobenzene	18.38	156	25580	2.337 ug/L	98
68) 1,1,2,2-tetrachloroethane	18.04	83	20770	2.379 ug/L #	1
69) 1,2,3-trichloropropane	18.20	110	6501	2.333 ug/L	94
70) trans-1,4-dichloro-2-buten	18.26	75	3031	2.421 ug/L #	85
71) n-propylbenzene	18.28	91	118956	2.404 ug/L	100
72) 2-chlorotoluene	18.51	91	73991	2.405 ug/L	100
73) 4-chlorotoluene	18.56	91	75702	2.454 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	83209	2.363 ug/L	100
75) tert-butylbenzene	18.84	119	72684	2.326 ug/L	100
76) 1,2,4-trimethylbenzene	18.89	105	86748	2.417 ug/L	100
77) sec-butylbenzene	19.06	105	104484	2.403 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	49581	2.393 ug/L	99
79) p-isopropyltoluene	19.19	119	88806	2.393 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	50734	2.455 ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	46731	2.420 ug/L	93
82) n-butylbenzene	19.58	91	74894	2.373 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	3019	2.810 ug/L	93
85) 1,3,5-trichlorobenzV	20.75	180	28248	2.317 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	24365	2.360 ug/L	98
87) hexachlorobutadieneV	21.56	225	10292	2.224 ug/L	99
88) naphthaleneV	21.76	128	61950	2.378 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	21420	2.406 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 9:30 am Operator: BAM
Sample : BlnkA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:24 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

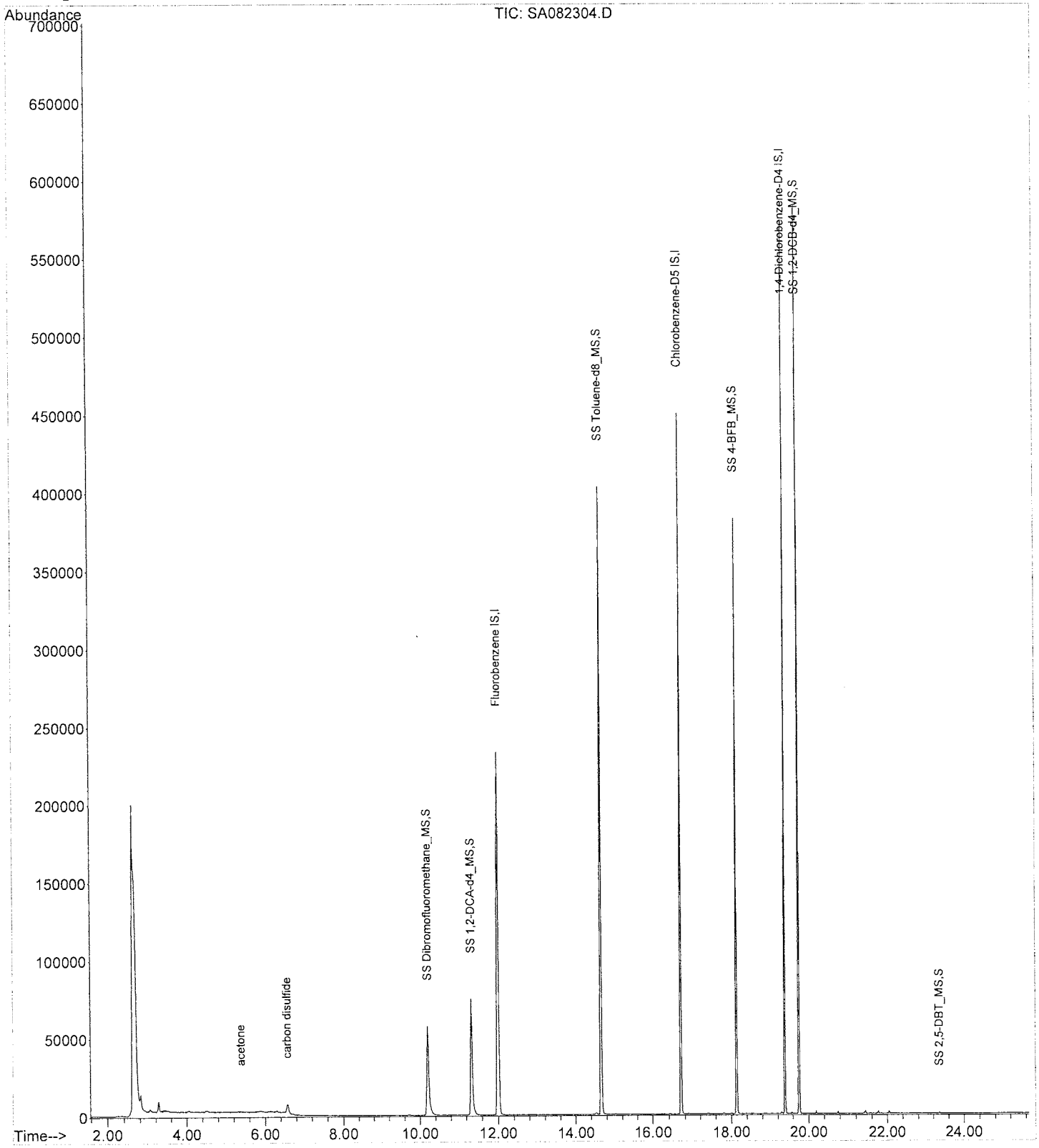
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	311185	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	248808	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	127553	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	71820	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.97%			
35) SS 1,2-DCA-d4_MS	11.33	65	87842	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.34%			
48) SS Toluene-d8_MS	14.65	98	311929	9.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.82%			
65) SS 4-BFB_MS	18.13	95	120812	9.78	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.76%			
83) SS 1,2-DCB-d4_MS	19.75	152	129987	10.21	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.08%			
90) SS 2,5-DBT_MS	23.36	250	190	2.76	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.90%#			
Target Compounds						Qvalue
11) acetone	5.38	43	546	0.289	ug/L #	42
16) carbon disulfide	6.57	76	10778	0.466	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 9:30 am Operator: BAM
Sample : BlnkA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082305.D Vial: 5
Acq On : 23 Aug 2013 10:05 am Operator: BAM
Sample : 123650.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:33:57 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	302073	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	244096	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	125774	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	70584	9.92 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.18%		
35) SS 1,2-DCA-d4_MS	11.33	65	84586	9.95 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.54%		
48) SS Toluene-d8_MS	14.65	98	304022	9.82 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.17%		
65) SS 4-BFB_MS	18.13	95	119395	9.85 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.48%		
83) SS 1,2-DCB-d4_MS	19.75	152	126859	10.10 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.03%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
6) chloroethane	4.12	64	3334	0.630 ug/L	94
8) diethyl ether	5.02	59	30472	5.126 ug/L #	73
11) acetone	5.39	43	3930	2.140 ug/L #	88
13) tert-Butyl Alcohol(TBA)	5.76	59	1880	2.925 ug/L #	89
16) carbon disulfide	6.57	76	10133	0.451 ug/L #	85
29) Tetrahydrofuran(THF)	10.16	42	16403	7.215 ug/L	99
37) benzene	11.55	78	24949	0.738 ug/L	98
41) 1,4-dioxaneV	13.48	88	656	~~7.994~~ ug/L #	72
57) chlorobenzene	16.74	112	39478	1.549 ug/L	99
64) iso-propylbenzene	17.83	105	10304	0.262 ug/L	97
70) trans-1,4-dichloro-2-buten	18.13	75	57037	~~30.309~~ ug/L #	2
80) 1,4-dichlorobenzeneV	19.42	146	9920	0.501 ug/L #	71

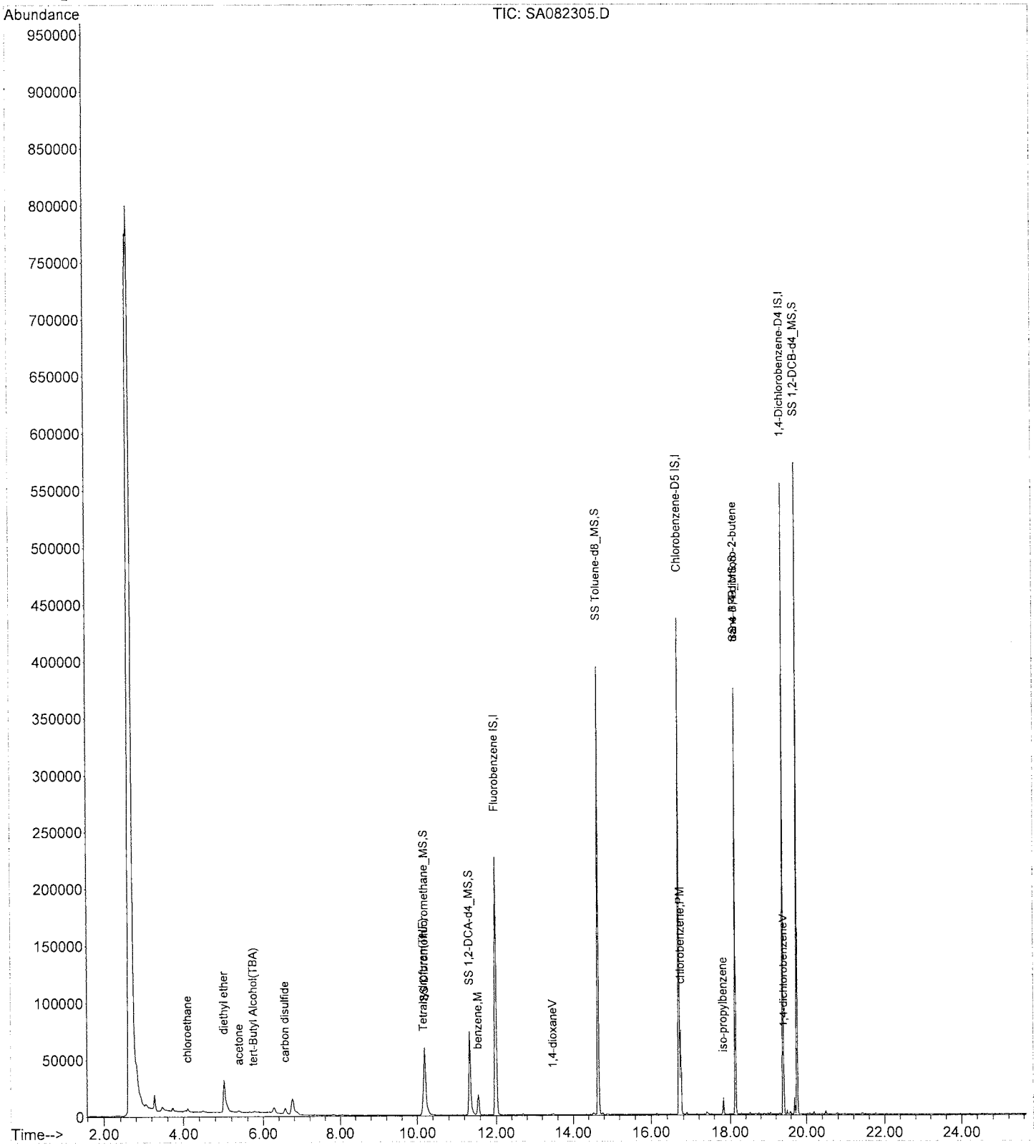
Baker 8/27/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082305.D Vial: 5
Acq On : 23 Aug 2013 10:05 am Operator: BAM
Sample : 123650.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:33 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082306.D Vial: 6
Acq On : 23 Aug 2013 10:39 am Operator: BAM
Sample : 123650.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:06 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	297357	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	239164	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	123235	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	69902	9.98	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.78%			
35) SS 1,2-DCA-d4_MS	11.34	65	85326	10.20	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.00%			
48) SS Toluene-d8_MS	14.66	98	298297	9.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.31%			
65) SS 4-BFB_MS	18.13	95	116799	9.83	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.32%			
83) SS 1,2-DCB-d4_MS	19.75	152	125112	10.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.70%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
6) chloroethane	4.11	64	24990	4.798	ug/L	98
8) diethyl ether	5.02	59	150941	25.792	ug/L	95
11) acetone	5.39	43	4064	2.248	ug/L	91
13) tert-Butyl Alcohol(TBA)	5.78	59	9419	14.886	ug/L	99
15) methylene chloride	6.55	84	1941	0.249	ug/L	92
16) carbon disulfide	6.57	76	10579	0.478	ug/L #	81
18) Methyl-t-butyl ether(MTBE)	6.86	73	17399	0.848	ug/L #	90
27) 2-butanone(MEK)	8.98	43	954	0.287	ug/L #	59
29) Tetrahydrofuran(THF)	10.15	42	72284	32.299	ug/L	98
37) benzene	11.55	78	58742	1.765	ug/L	98
41) 1,4-dioxaneV	13.48	88	5493	67.996	ug/L #	82
52) 2-hexanone	15.14	43	1310	0.281	ug/L #	37
57) chlorobenzene	16.74	112	36876	1.477	ug/L	99
64) iso-propylbenzene	17.83	105	11551	0.300	ug/L	98
70) trans-1,4-dichloro-2-buten	18.13	75	55732	~~30.229~~	ug/L #	2
78) 1,3-dichlorobenzeneV	~~19.42~~	146	9478	~~0.487~~	ug/L #	74
80) 1,4-dichlorobenzeneV	19.42	146	9478	0.489	ug/L #	71

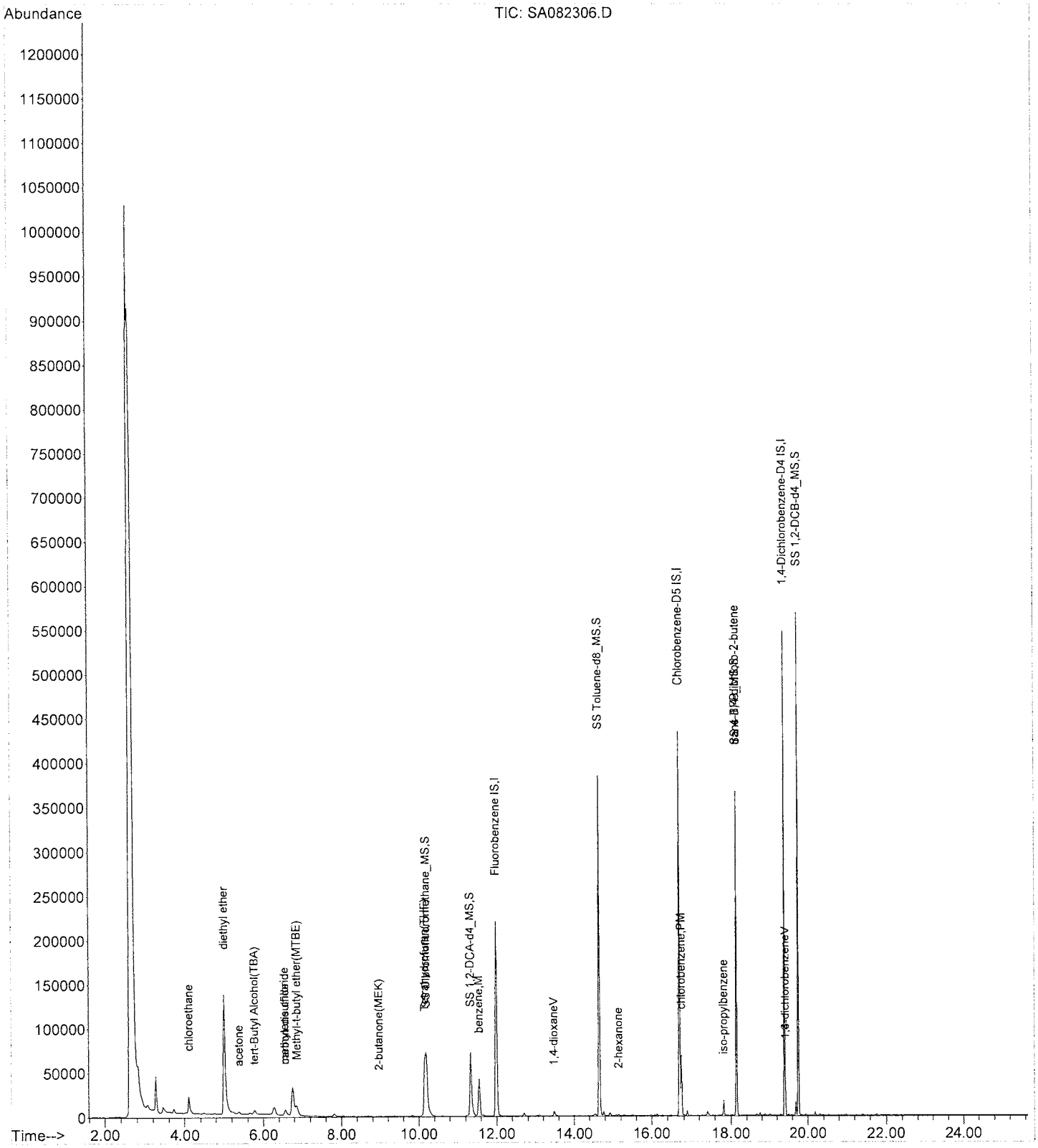
Bcm 8/27/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082306.D 5VID0819.M Mon Aug 26 07:34:08 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082306.D Vial: 6
Acq On : 23 Aug 2013 10:39 am Operator: BAM
Sample : 123650.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:34 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082307.D Vial: 7
Acq On : 23 Aug 2013 11:13 am Operator: BAM
Sample : 123650.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:10 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	295318	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	238157	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	121404	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	69538	9.99	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.95%			
35) SS 1,2-DCA-d4_MS	11.33	65	83911	10.10	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.00%			
48) SS Toluene-d8_MS	14.65	98	295780	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.89%			
65) SS 4-BFB_MS	18.13	95	115187	9.74	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.38%			
83) SS 1,2-DCB-d4_MS	19.75	152	123560	10.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.95%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
11) acetone	5.39	43	1471	0.819	ug/L #	47
16) carbon disulfide	6.57	76	8958	0.408	ug/L #	81
29) Tetrahydrofuran(THF)	10.17	42	553	0.249	ug/L #	38
70) trans-1,4-dichloro-2-buten	18.13	75	54682	~~30.110~~	ug/L #	2

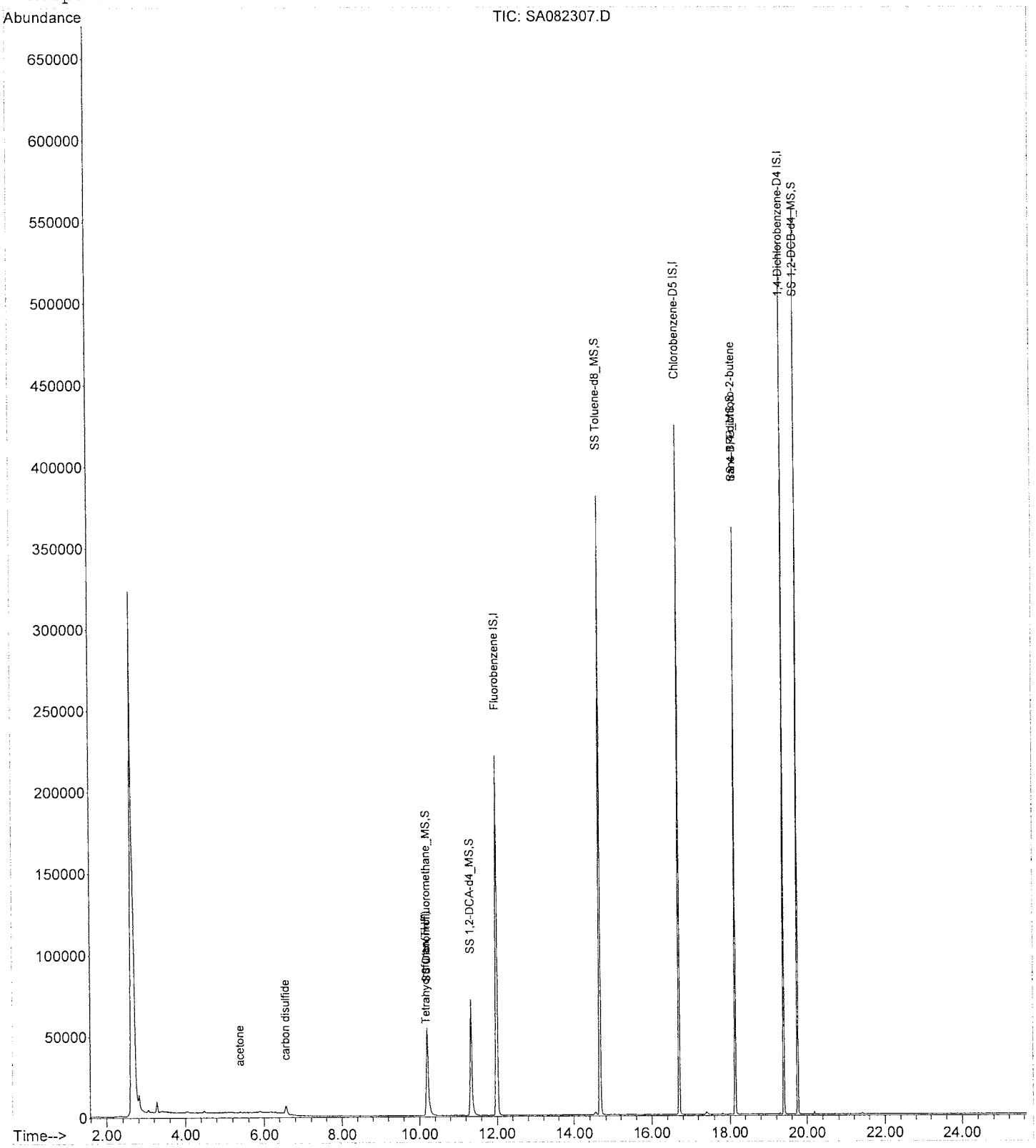
8/27/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082307.D Vial: 7
Acq On : 23 Aug 2013 11:13 am Operator: BAM
Sample : 123650.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:34 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:45 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	299596	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	246012	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	132098	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72350	10.25	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.51%			
35) SS 1,2-DCA-d4_MS	11.33	65	82731	9.82	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.16%			
48) SS Toluene-d8_MS	14.65	98	305107	9.78	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.75%			
65) SS 4-BFB_MS	18.13	95	122197	10.00	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.01%			
83) SS 1,2-DCB-d4_MS	19.75	152	132653	10.06	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.59%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	196844	20.614	ug/L	100
3) chloromethane	3.19	50	182023	21.376	ug/L	100
4) vinyl chloride	3.33	62	84111	22.111	ug/L	100
5) bromomethane	3.99	94	89520	19.663	ug/L	98
6) chloroethane	4.11	64	107596	20.504	ug/L	99
7) trichlorofluoromethane	4.52	101	222007	19.726	ug/L	100
8) diethyl ether	5.02	59	120459	20.430	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	146637	18.894	ug/L	99
10) acrolein	5.27	56	14463	23.113	ug/L	89
11) acetone	5.38	43	34519	18.948	ug/L	99
12) 1,1-dichloroethene	5.61	96	129379	17.449	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	58203	91.295	ug/L	94
14) Iodomethane	6.20	142	185409	18.266	ug/L #	99
15) methylene chloride	6.55	84	149194	19.003	ug/L	98
16) carbon disulfide	6.57	76	368240	16.531	ug/L	98
17) acrylonitrile	6.82	53	59880	18.421	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	396896	19.209	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	153683	19.242	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	533723	19.256	ug/L	99
22) vinyl acetate	8.05	43	162281	11.413	ug/L	100
23) 1,1-dichloroethane	8.04	63	289677	19.683	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	463278	18.924	ug/L	99
25) 2,2-dichloropropane	9.24	77	210954	18.937	ug/L	97
26) cis-1,2-dichloroethene	9.36	61	250258	21.730	ug/L	95
27) 2-butanone(MEK)	8.96	43	65318	19.482	ug/L	98
28) bromochloromethane	10.08	128	83325	19.715	ug/L	100
29) Tetrahydrofuran(THF)	10.16	42	44370	19.678	ug/L	99
30) chloroform	9.71	83	282529	19.894	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	219342	18.468	ug/L	99
33) carbon tetrachloride	11.17	117	185314	18.236	ug/L	99
34) 1,1-dichloropropene	10.96	75	214278	18.314	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	417582	19.428	ug/L #	54
37) benzene	11.55	78	682087	20.345	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:45 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

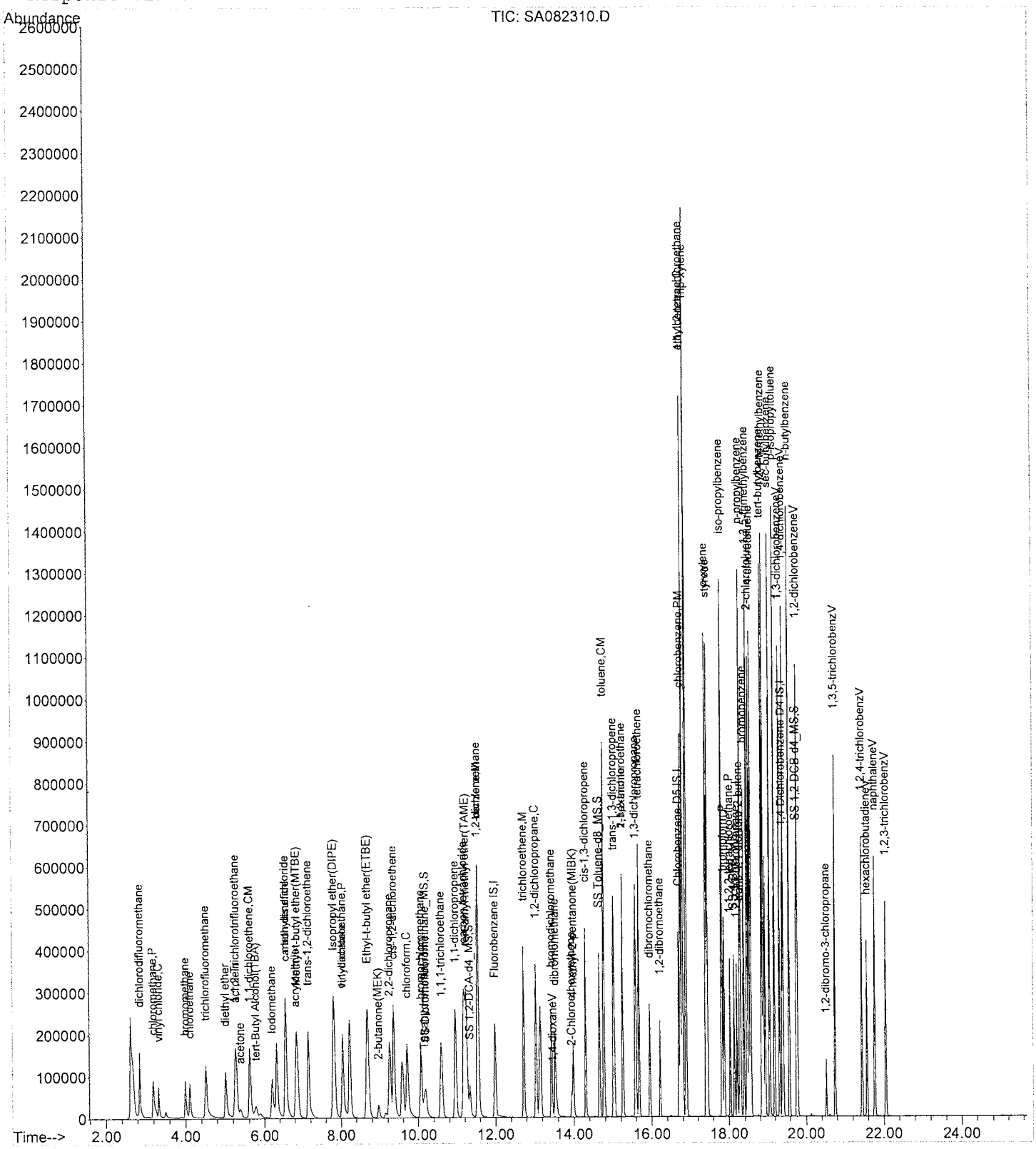
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	222822	19.654 ug/L	99
39) trichloroethene	12.73	95	167541	18.498 ug/L	99
40) 1,2-dichloropropane	13.05	63	170757	20.242 ug/L	98
41) 1,4-dioxaneV	13.48	88	2096	25.752 ug/L	99
42) dibromomethane	13.53	93	96244	20.050 ug/L	98
43) bromodichloromethane	13.44	83	187448	18.606 ug/L	100
44) 2-Chloroethoxyethene	13.94	63	27245	21.863 ug/L #	38
45) 4-methyl-2-pentanone(MIBK)	13.98	58	56189	21.273 ug/L	97
46) cis-1,3-dichloropropene	14.30	75	258462	21.330 ug/L	99
49) toluene	14.77	91	749955	19.856 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	222207	19.093 ug/L #	76
51) 1,1,2-trichloroethane	15.25	83	118981	19.950 ug/L	98
52) 2-hexanone	15.25	43	99991	20.849 ug/L	99
53) tetrachloroethene	15.67	166	198239	19.062 ug/L	99
54) 1,3-dichloropropane	15.60	76	252185	19.170 ug/L #	83
55) dibromochloromethane	15.95	129	143083	17.240 ug/L #	100
56) 1,2-dibromoethane	16.22	107	146151	19.476 ug/L	100
57) chlorobenzene	16.74	112	502767	19.576 ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	155904	19.932 ug/L	99
59) ethylbenzene	16.79	91	855764	19.767 ug/L	99
60) mp-xylene	16.89	106	690072	38.551 ug/L	98
61) o-xylene	17.41	106	333861	19.974 ug/L	99
62) styrene	17.46	104	573763	20.827 ug/L	99
63) bromoform	17.89	173	82987	16.635 ug/L #	93
64) iso-propylbenzene	17.83	105	864817	21.850 ug/L	99
67) bromobenzene	18.38	156	214068	19.441 ug/L	99
68) 1,1,2,2-tetrachloroethane	18.04	83	175380	19.967 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	54220	19.339 ug/L	99
70) trans-1,4-dichloro-2-buten	18.26	75	64752	32.687 ug/L #	83
71) n-propylbenzene	18.28	91	1029036	20.669 ug/L	100
72) 2-chlorotoluene	18.51	91	598176	19.325 ug/L	100
73) 4-chlorotoluene	18.56	91	622633	20.062 ug/L	100
74) 1,3,5-trimethylbenzene	18.46	105	713517	20.136 ug/L	99
75) tert-butylbenzene	18.84	119	627691	19.960 ug/L	99
76) 1,2,4-trimethylbenzene	18.89	105	730604	20.231 ug/L	99
77) sec-butylbenzene	19.06	105	889843	20.341 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	413919	19.855 ug/L	100
79) p-isopropyltoluene	19.19	119	780662	20.904 ug/L	100
80) 1,4-dichlorobenzeneV	19.42	146	414583	19.936 ug/L	100
81) 1,2-dichlorobenzeneV	19.78	146	383437	19.733 ug/L	100
82) n-butylbenzene	19.58	91	656611	20.675 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	31352	17.548 ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	247432	20.168 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	202193	19.462 ug/L	99
87) hexachlorobutadieneV	21.56	225	78782	16.921 ug/L	99
88) naphthaleneV	21.76	128	517663	19.749 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	172782	19.291 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:01:10 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	308392	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	255451	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	136135	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	73446	10.11	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.09%			
35) SS 1,2-DCA-d4_MS	11.34	65	84934	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.90%			
48) SS Toluene-d8_MS	14.65	98	317843	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.07%			
65) SS 4-BFB_MS	18.13	95	126170	9.94	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.44%			
83) SS 1,2-DCB-d4_MS	19.75	152	136190	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	205656	20.923	ug/L	100
3) chloromethane	3.19	50	193374	22.061	ug/L	100
4) vinyl chloride	3.34	62	90402	23.112	ug/L	100
5) bromomethane	3.99	94	102767	21.929	ug/L	98
6) chloroethane	4.11	64	112995	20.919	ug/L	99
7) trichlorofluoromethane	4.52	101	231922	20.019	ug/L	100
8) diethyl ether	5.02	59	123763	20.392	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	152270	19.061	ug/L	99
10) acrolein	5.27	56	14182	22.018	ug/L	85
11) acetone	5.39	43	35078	18.706	ug/L	98
12) 1,1-dichloroethene	5.61	96	135316	17.729	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	54969	83.763	ug/L	91
14) Iodomethane	6.20	142	199414	19.096	ug/L #	100
15) methylene chloride	6.55	84	156128	19.319	ug/L	99
16) carbon disulfide	6.57	76	394301	17.196	ug/L	98
17) acrylonitrile	6.81	53	60059	17.949	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	406758	19.125	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	161695	19.668	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	555646	19.476	ug/L	100
22) vinyl acetate	8.05	43	165420	11.302	ug/L	99
23) 1,1-dichloroethane	8.04	63	300721	19.851	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	475295	18.861	ug/L	98
25) 2,2-dichloropropane	9.25	77	219812	19.170	ug/L	98
26) cis-1,2-dichloroethene	9.35	61	255792	21.577	ug/L	96
27) 2-butanone(MEK)	8.96	43	65340	18.932	ug/L	99
28) bromochloromethane	10.08	128	87321	20.071	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	43526	18.753	ug/L	97
30) chloroform	9.71	83	294371	20.136	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	229597	18.780	ug/L	99
33) carbon tetrachloride	11.17	117	197219	18.854	ug/L	99
34) 1,1-dichloropropene	10.96	75	226119	18.775	ug/L	98
36) tert-amyl methyl ether(TAM	11.23	73	431482	19.503	ug/L #	56
37) benzene	11.55	78	711656	20.621	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:01:10 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

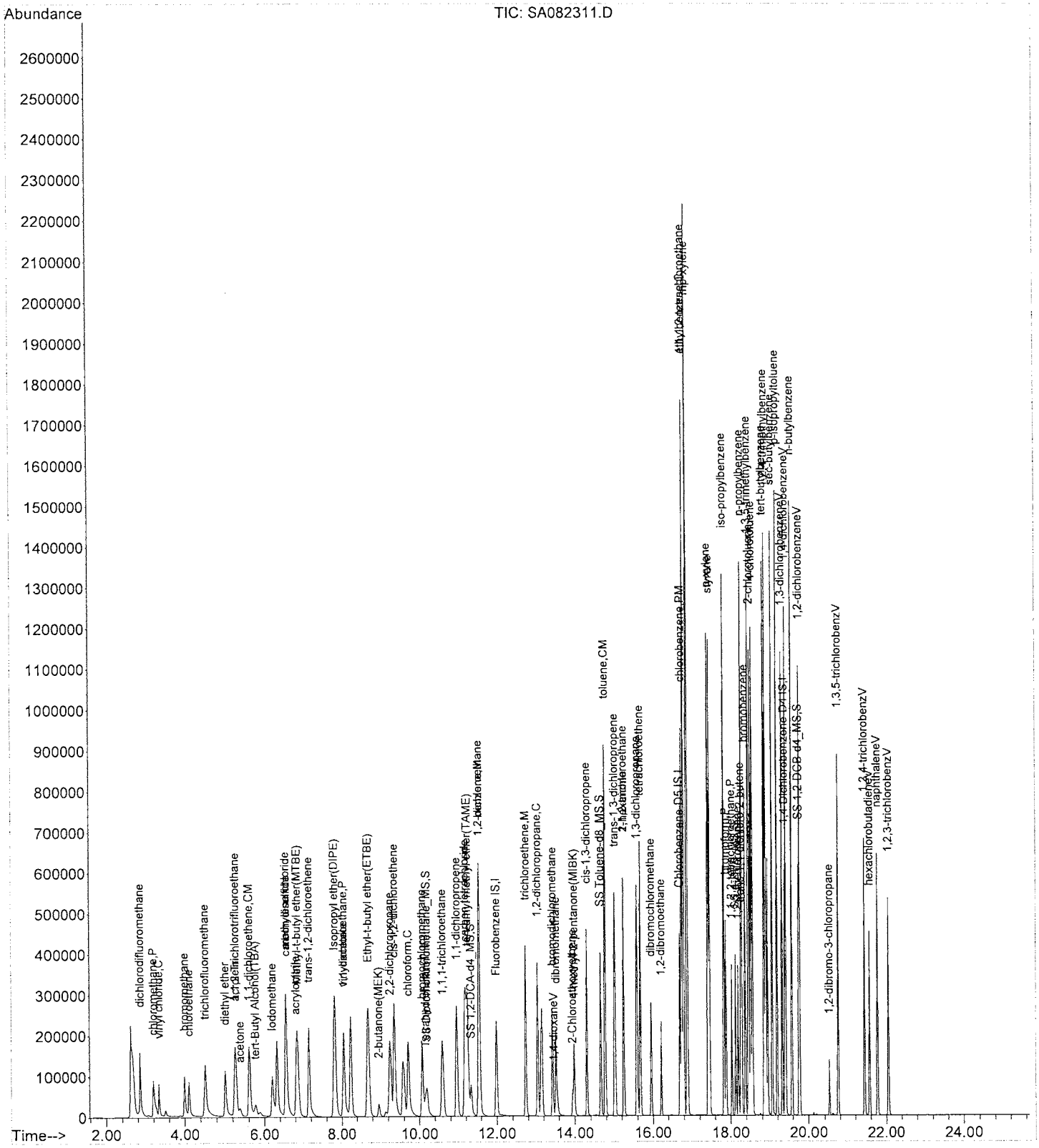
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	227077	19.459	ug/L		99
39)	trichloroethene	12.73	95	174300	18.696	ug/L		99
40)	1,2-dichloropropane	13.05	63	177538	20.446	ug/L		97
41)	1,4-dioxaneV	13.48	88	2093	24.981	ug/L		97
42)	dibromomethane	13.53	93	99324	20.102	ug/L		98
43)	bromodichloromethane	13.44	83	193999	18.707	ug/L		100
44)	2-Chloroethoxyethene	13.95	63	29094	22.427	ug/L	#	30
45)	4-methyl-2-pentanone(MIBK)	13.98	58	56411	20.748	ug/L		97
46)	cis-1,3-dichloropropene	14.30	75	266908	21.399	ug/L		98
49)	toluene	14.77	91	777248	19.819	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	229590	18.998	ug/L	#	77
51)	1,1,2-trichloroethane	15.25	83	120848	19.515	ug/L		98
52)	2-hexanone	15.25	43	99452	19.970	ug/L		100
53)	tetrachloroethene	15.67	166	208263	19.286	ug/L		99
54)	1,3-dichloropropane	15.59	76	257065	18.819	ug/L	#	84
55)	dibromochloromethane	15.95	129	148157	17.193	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	148458	19.052	ug/L		100
57)	chlorobenzene	16.74	112	520650	19.523	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	162164	19.966	ug/L		99
59)	ethylbenzene	16.79	91	892070	19.844	ug/L		100
60)	mp-xylene	16.89	106	718341	38.647	ug/L		99
61)	o-xylene	17.41	106	347202	20.005	ug/L		98
62)	styrene	17.46	104	594824	20.794	ug/L		99
63)	bromoform	17.89	173	85940	16.594	ug/L	#	92
64)	iso-propylbenzene	17.83	105	901150	21.927	ug/L		100
67)	bromobenzene	18.38	156	221260	19.498	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	175154	19.350	ug/L		99
69)	1,2,3-trichloropropane	18.21	110	54099	18.724	ug/L		98
70)	trans-1,4-dichloro-2-buten	18.26	75	66268	32.467	ug/L	#	83
71)	n-propylbenzene	18.28	91	1069850	20.852	ug/L		100
72)	2-chlorotoluene	18.51	91	620441	19.450	ug/L		100
73)	4-chlorotoluene	18.56	91	639114	19.982	ug/L		99
74)	1,3,5-trimethylbenzene	18.46	105	738186	20.214	ug/L		99
75)	tert-butylbenzene	18.84	119	651845	20.114	ug/L		99
76)	1,2,4-trimethylbenzene	18.89	105	755174	20.291	ug/L		99
77)	sec-butylbenzene	19.06	105	923771	20.490	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	426677	19.860	ug/L		100
79)	p-isopropyltoluene	19.19	119	811103	21.075	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	430556	20.090	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	393633	19.657	ug/L		100
82)	n-butylbenzene	19.58	91	683432	20.881	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	31556	17.168	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	258055	20.410	ug/L		99
86)	1,2,4-trichlorobenzV	21.44	180	208287	19.454	ug/L		99
87)	hexachlorobutadieneV	21.56	225	84340	17.578	ug/L		99
88)	naphthaleneV	21.76	128	533376	19.745	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	179921	19.492	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:01 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

Professional laboratory & drilling services

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4001

Standard ID= V- 4010

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VB

Date: 5/10/23

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAIS1001	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMDSD	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120424.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120424.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	22					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120424.03				✓	VOC			
39	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/23

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

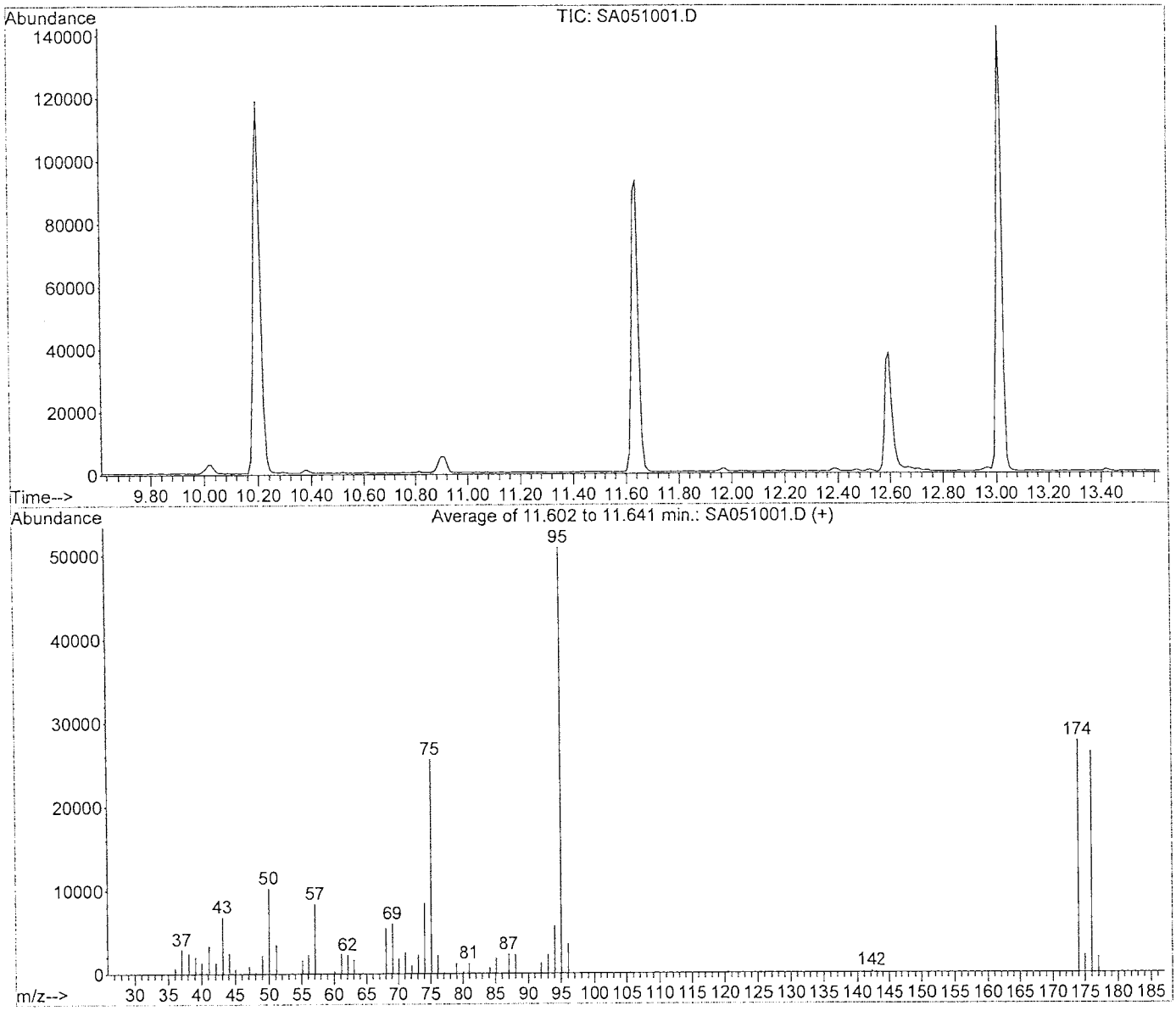
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

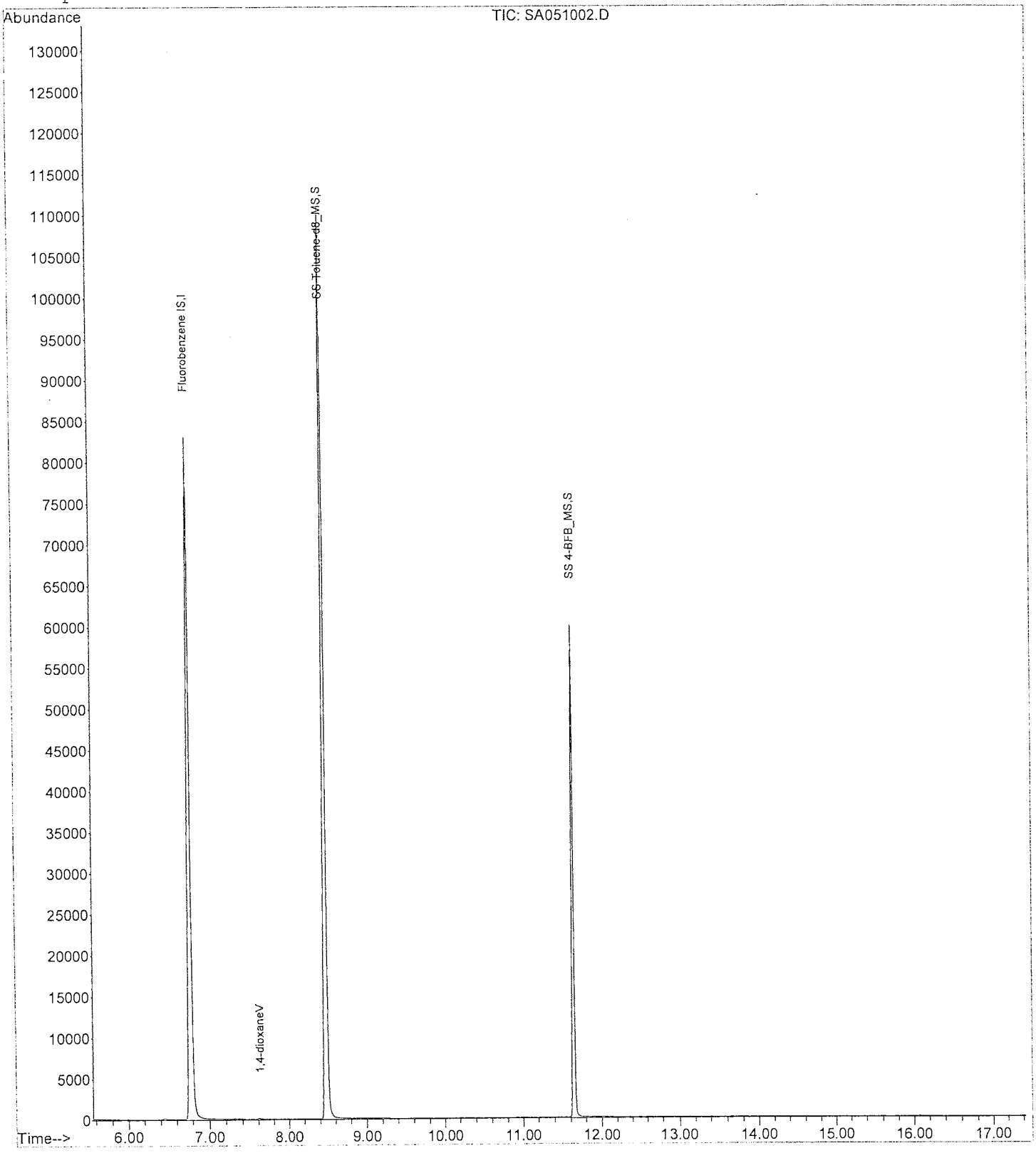
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	160084	9.79	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS	11.64	95	56746	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051002.D 2SIM0510.M Wed Aug 21 13:48:36 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

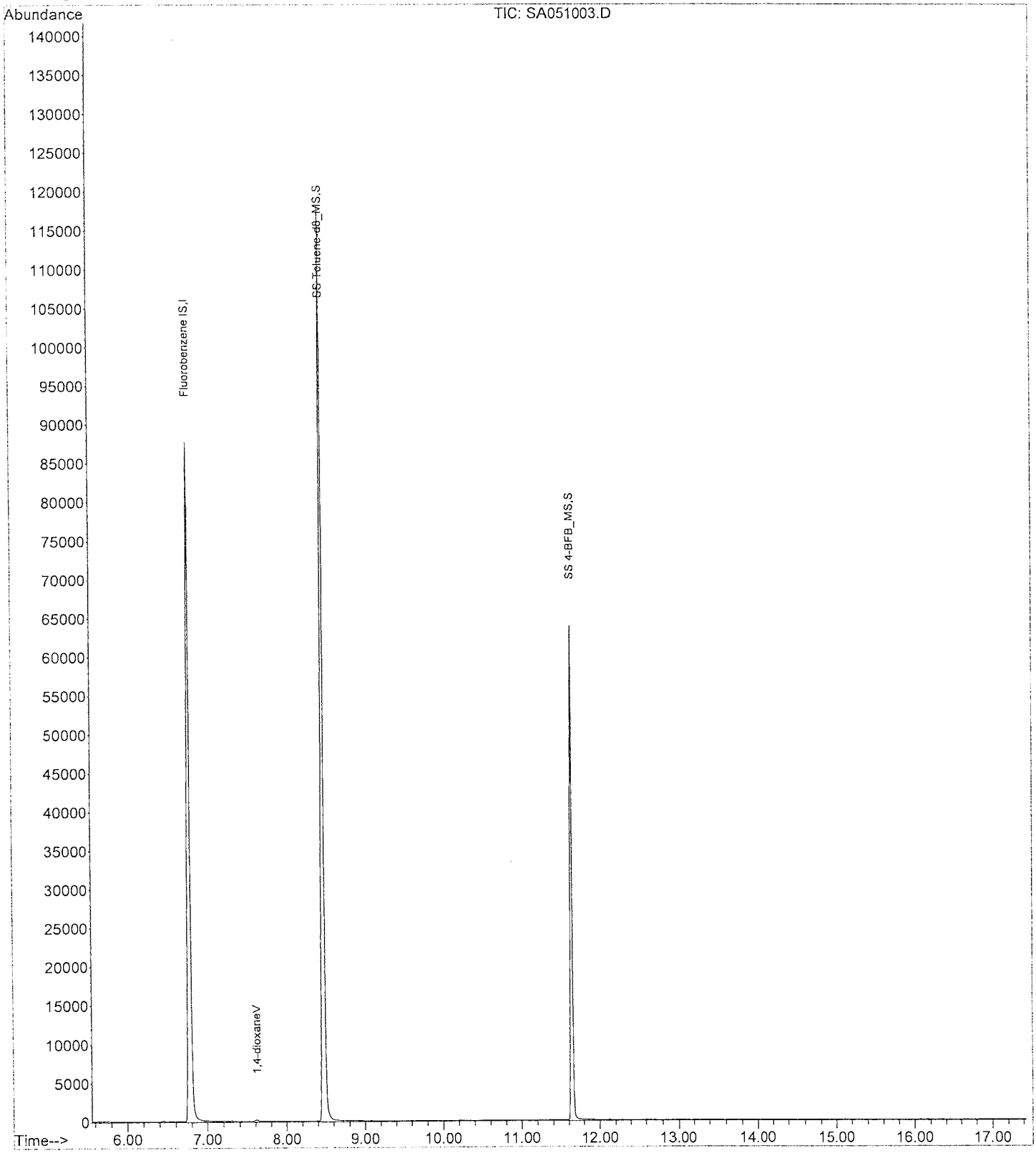
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

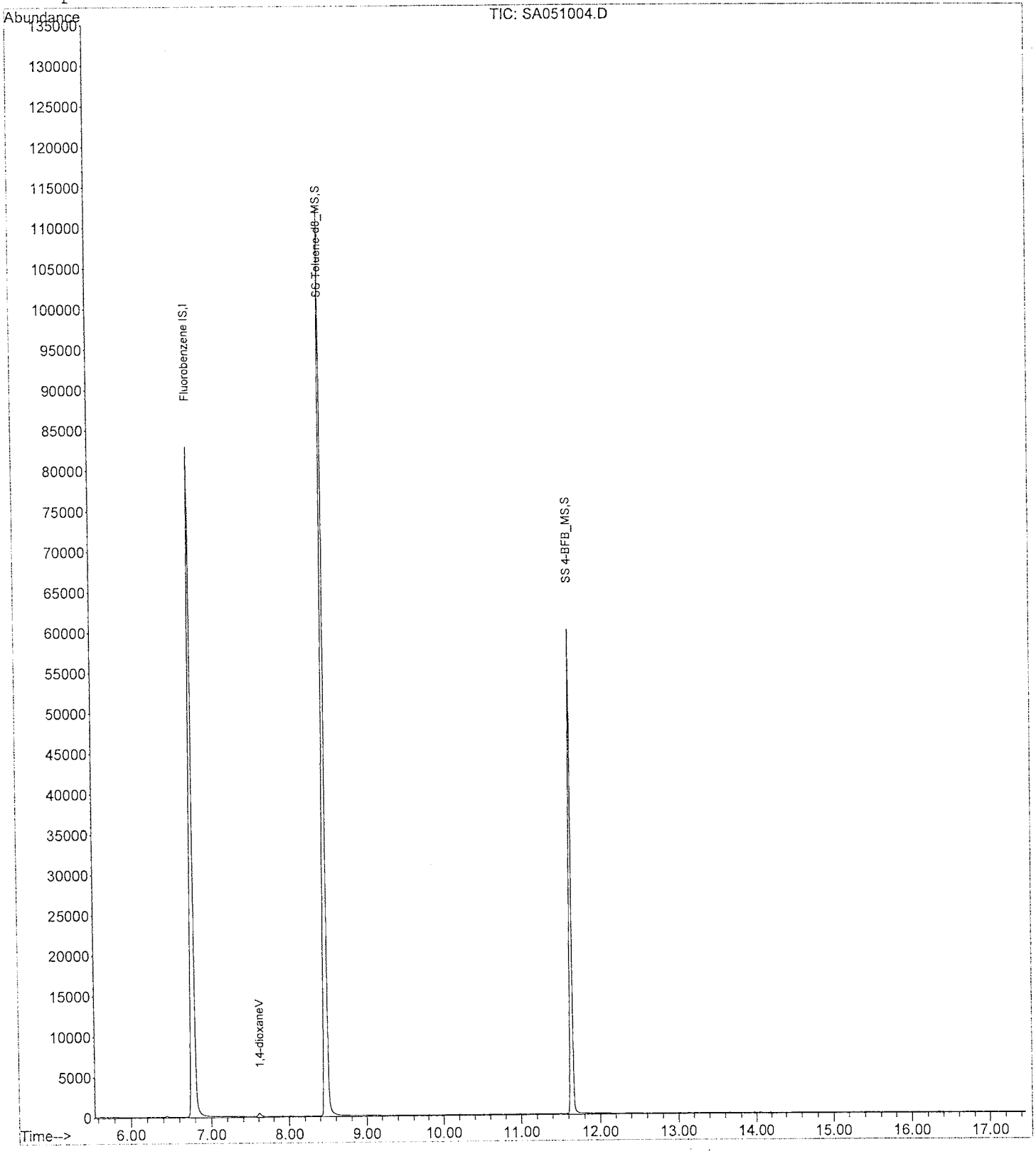
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

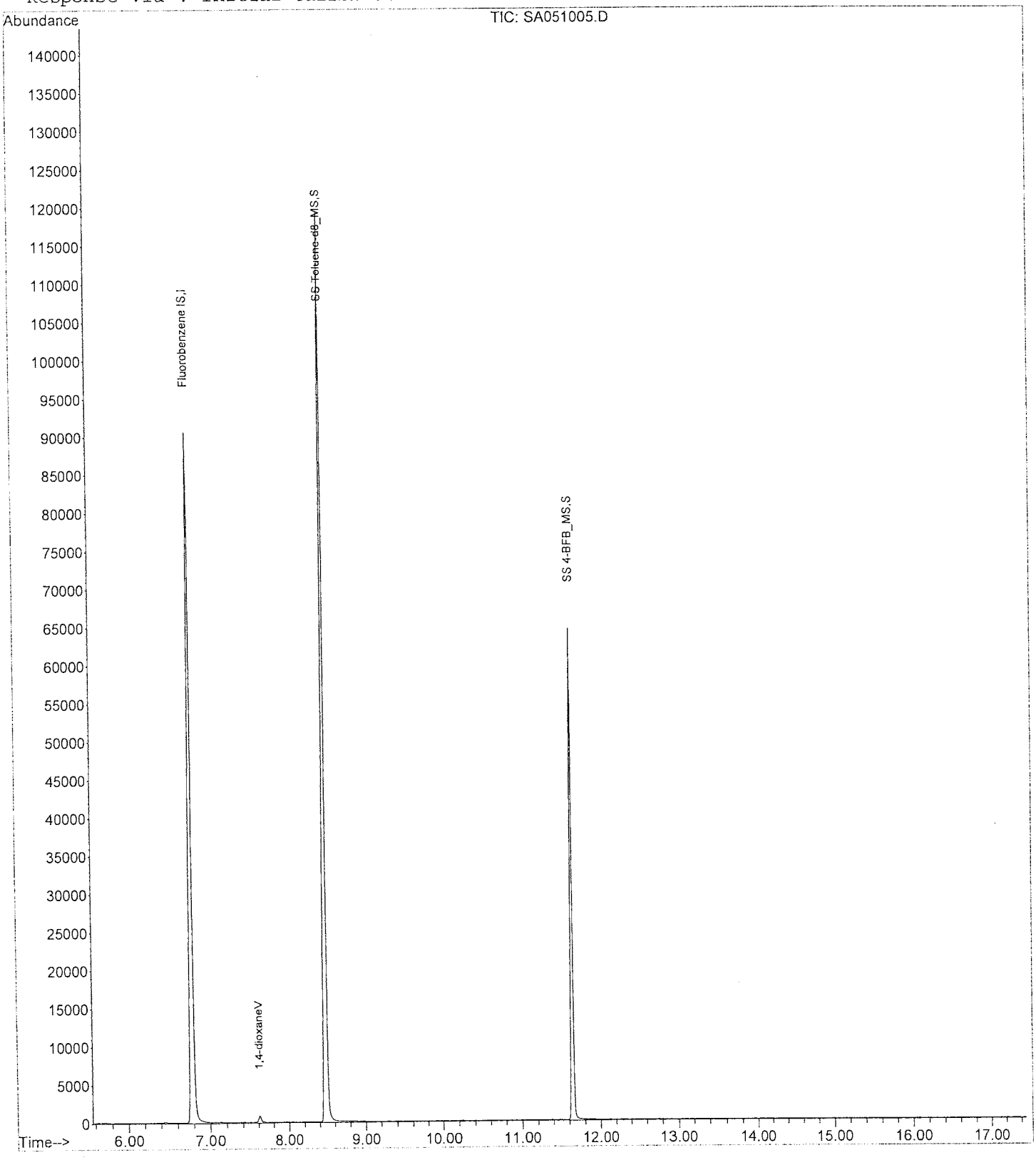
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170943	9.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.75%			
4) SS 4-BFB_MS	11.64	95	59771	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

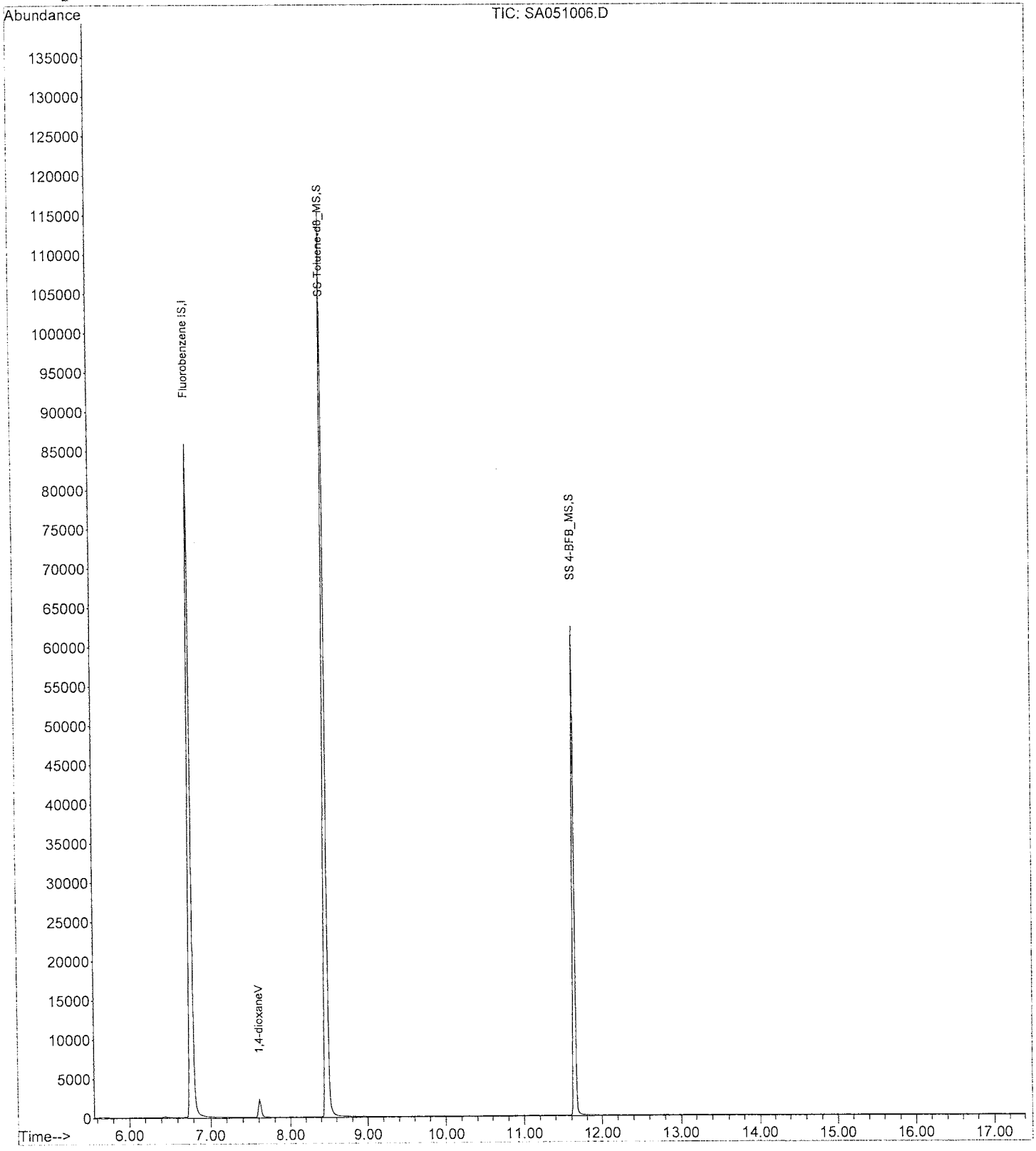
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

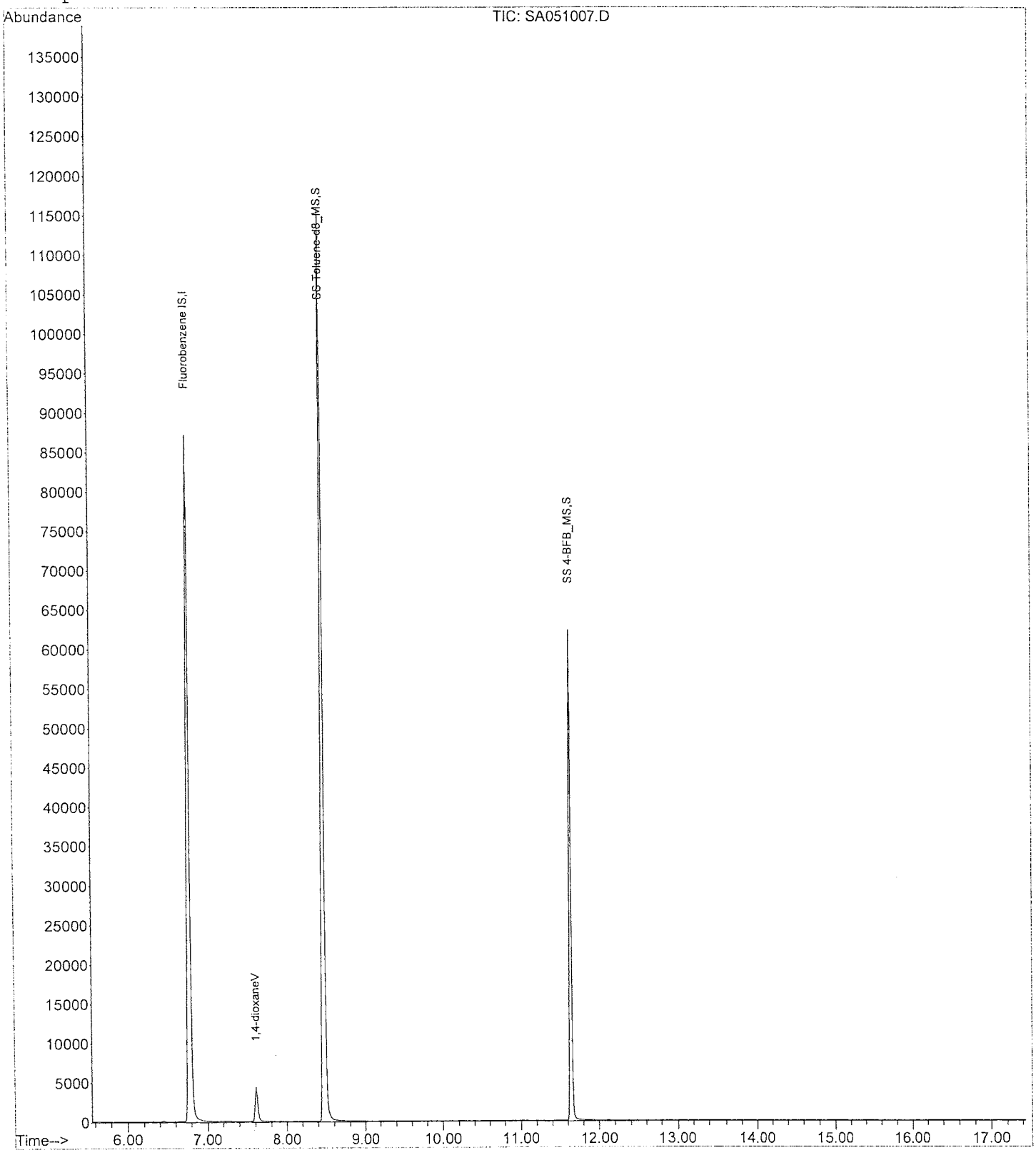
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	159671	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%			
4) SS 4-BFB_MS	11.64	95	58595	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051007.D 2SIM0510.M Wed Aug 21 13:49:48 2013

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

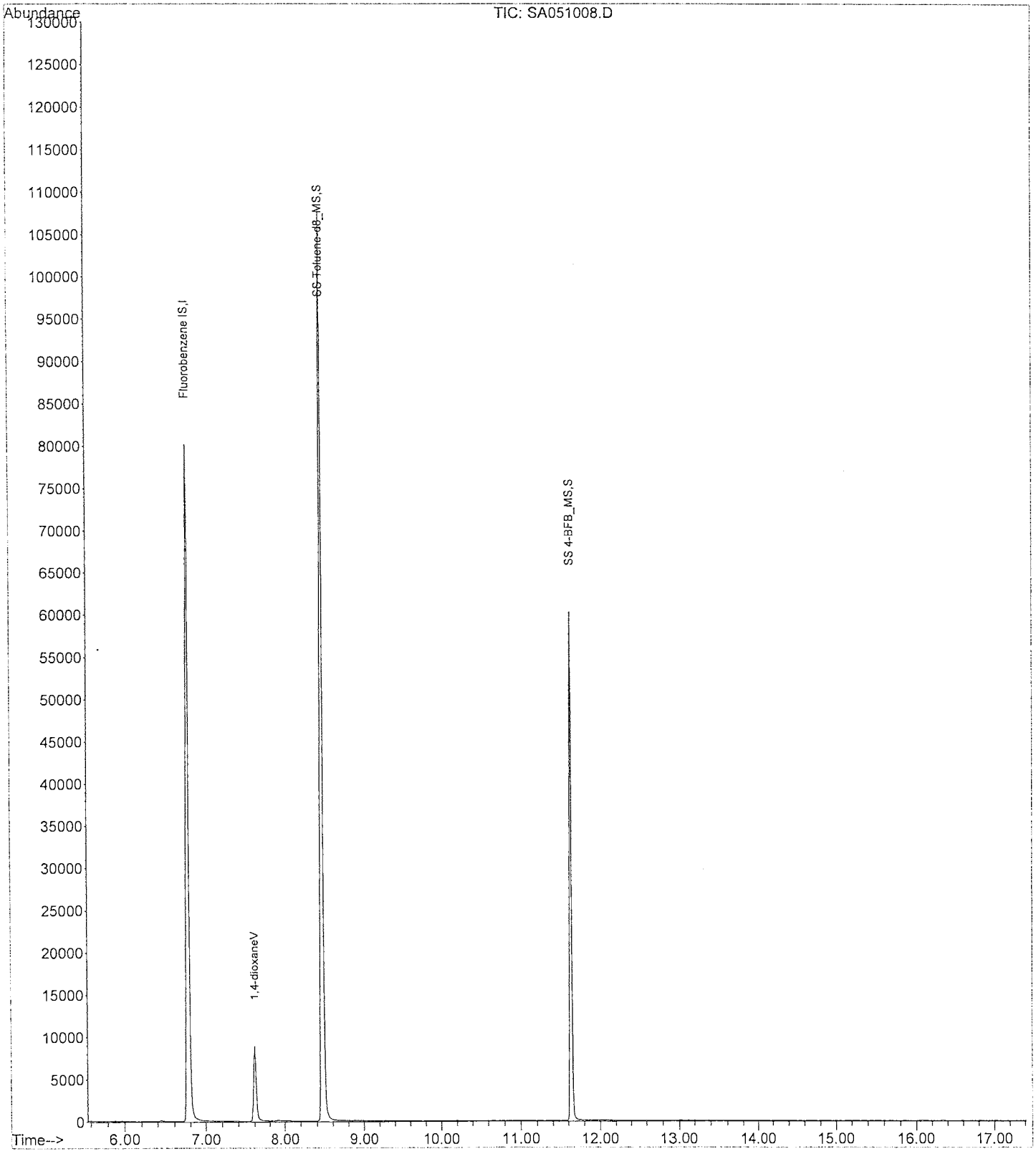
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	149017	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%			
4) SS 4-BFB_MS	11.64	95	55675	10.21	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

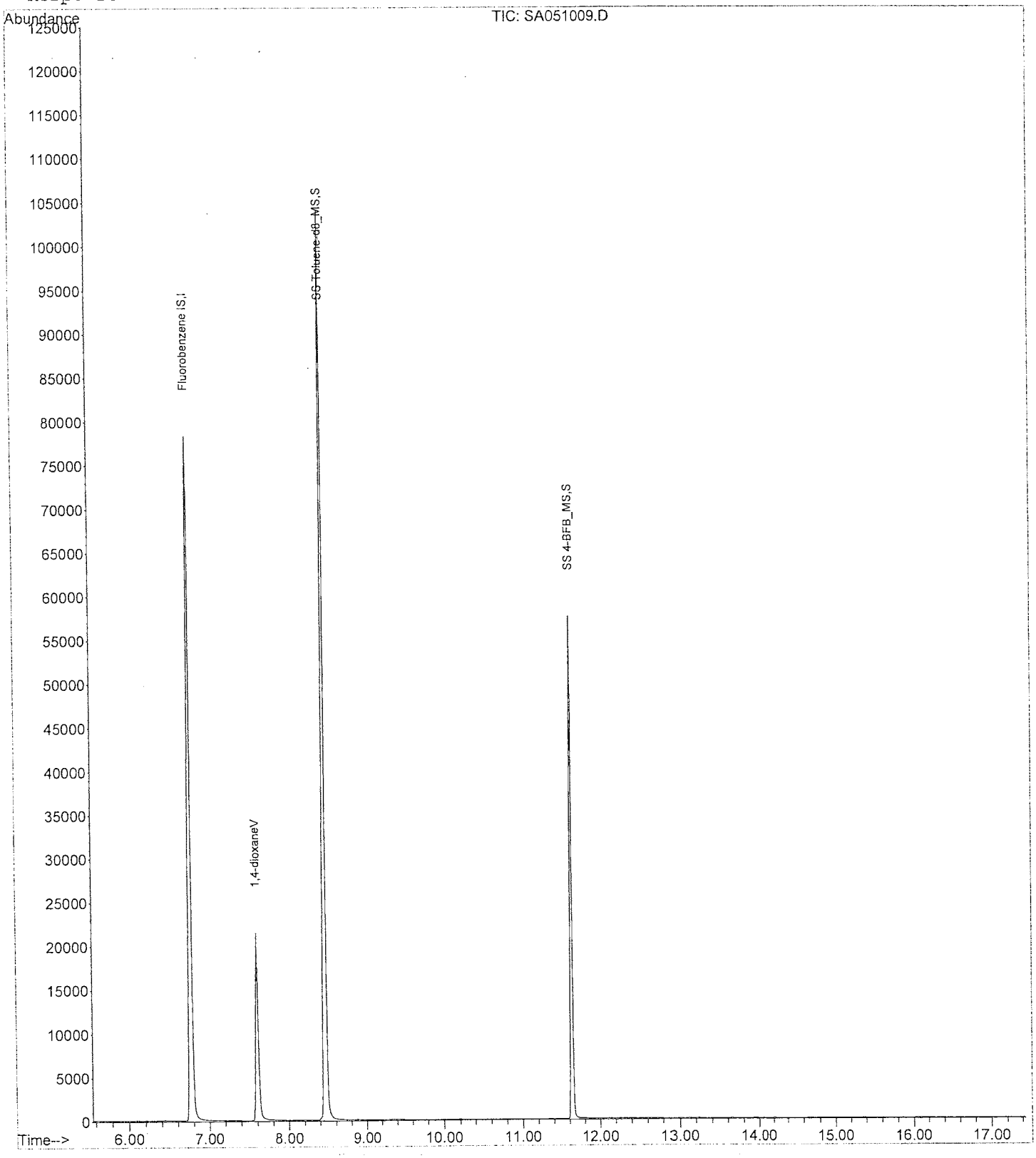
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	148830	9.89 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%		
4) SS 4-BFB_MS	11.63	95	52945	10.26 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671 ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

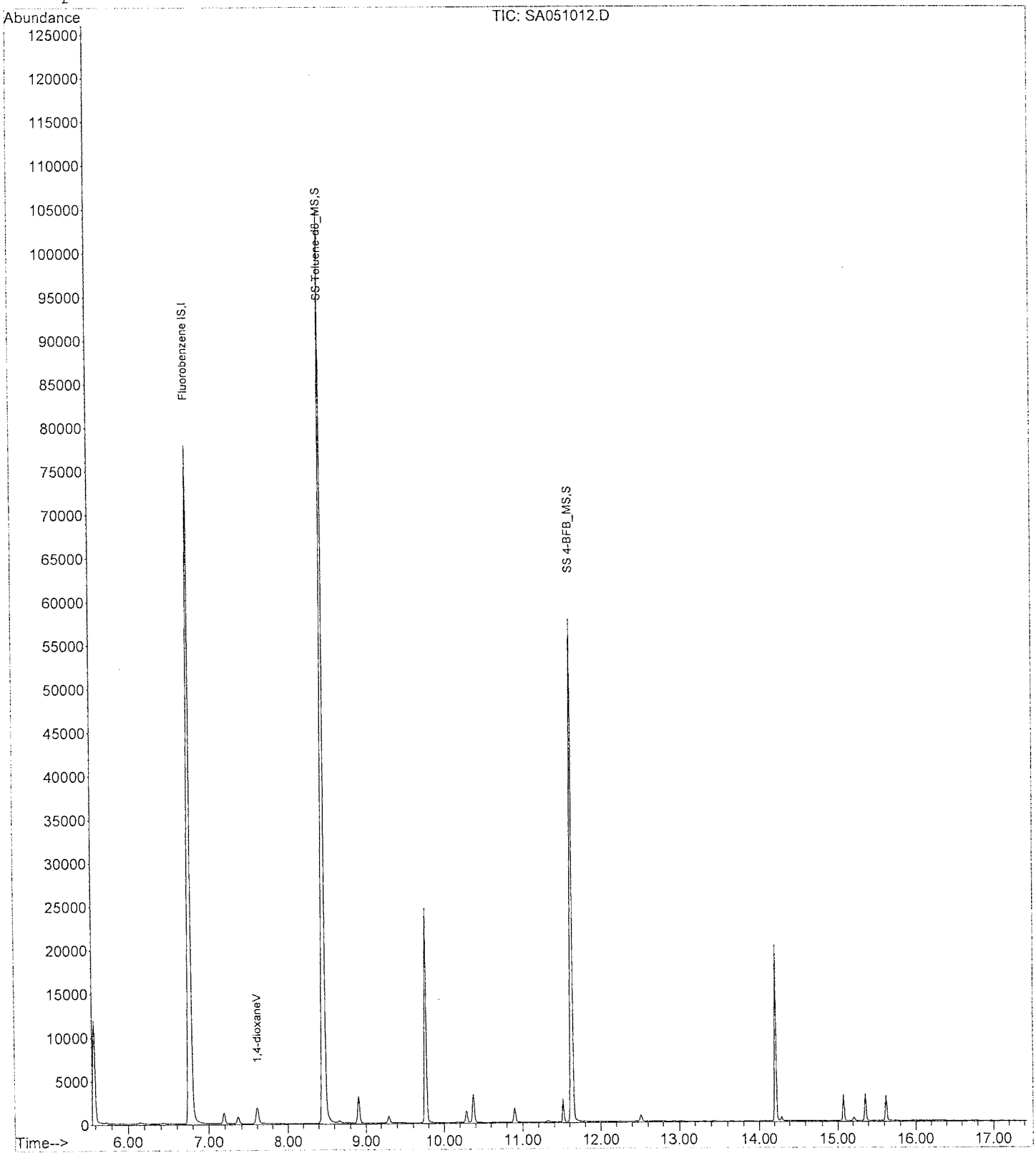
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%			
4) SS 4-BFB_MS	11.63	95	52679	10.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
professional laboratory & drilling services

123650
1,4 Dioxane VOC 8260B SIM
Support Data

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VS

Date: 8/21/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	A00101	BFB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	5IM050		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank				↓	VOC			
6	6	123649.06 MS				X10	VOC			
7	7	MSD				X10	VOC			
8	8	123650.01				X5	VOC			
9	9	03				X5	VOC			
10	10	04				X10	VOC			
11	11	06				X1	VOC			
12	12	123705.01					VOC			
13	13	02					VOC			
14	14	04					VOC			
15	15	05					VOC			
16	16	STD.25					VOC			
17	17	BFB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123705.06					VOC			
23	23	07					VOC			
24	24	08					VOC			
25	25	09					VOC			
26	26	10					VOC			
27	27	123704.06				↓	VOC			
28	28	02				X10	VOC			
29	29	03					VOC			
30	30	DMS					VOC			
31	31	02MS		✓		↓	VOC			
							VOC			
							VOC			
							VOC			
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							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by VS 8/23/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D
Tune Time : 21 Aug 2013 11:16 am

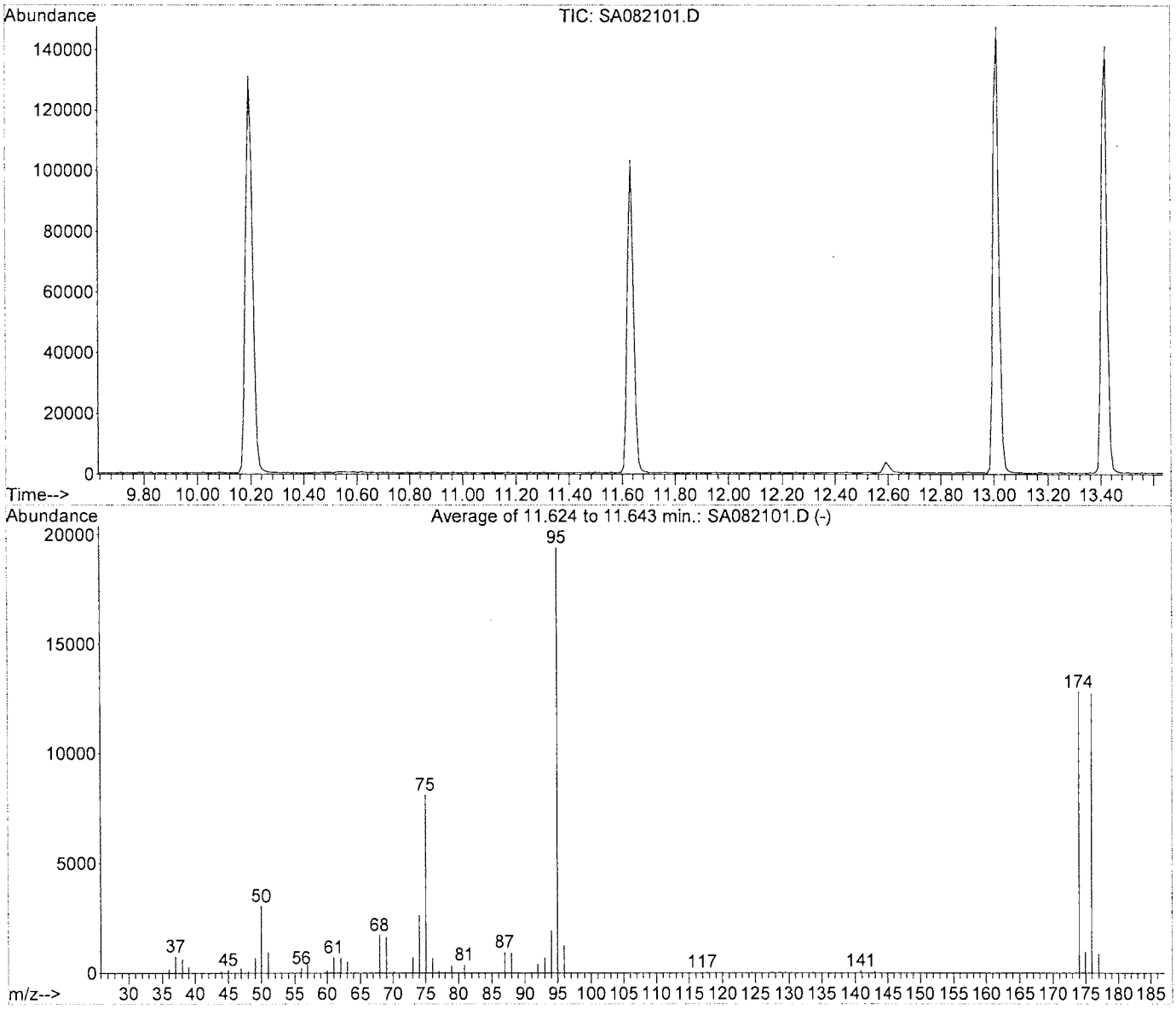
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D

				181533
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082102.D	STD5	97	109	181533
SA082103.D	LCS5	95	104	178431
SA082104.D	LCSD	97	104	178225
SA082105.D	BLANK	96	105	176829
SA082106.D	123649.06M	102	106	174878
SA082107.D	123649.06M	97	105	175883
SA082108.D	123650.01	102	108	174522
SA082109.D	123650.03	100	107	176431
SA082110.D	123650.04	101	106	177560
SA082111.D	123650.06	96	107	166242
SA082112.D	123705.01	97	109	157923
SA082113.D	123705.02	98	111	157712
SA082114.D	123705.04	97	109	158204
SA082115.D	123705.05	97	110	157532
SA082116.D	tSTD0.25	101	110	159681

t - fails 12hr time check * - fails criteria

Created: Thu Aug 22 09:03:49 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D Vial: 1
Acq On : 21 Aug 2013 11:16 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.624 to 11.643 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	3059	PASS
75	95	30	60	41.7	8107	PASS
95	95	100	100	100.0	19418	PASS
96	95	5	9	6.5	1256	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.1	12837	PASS
175	174	5	9	7.5	967	PASS
176	174	95	101	99.3	12747	PASS
177	176	5	9	6.9	875	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	114	0.00
2		1,4-dioxaneV	5.000	4.026	19.5	92	0.00
3	S	SS Toluene-d8_MS	10.000	9.669	3.3	109	0.00
4	S	SS 4-BFB_MS	10.000	10.854	-8.5	125	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 15:36:17 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 12:25:25 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

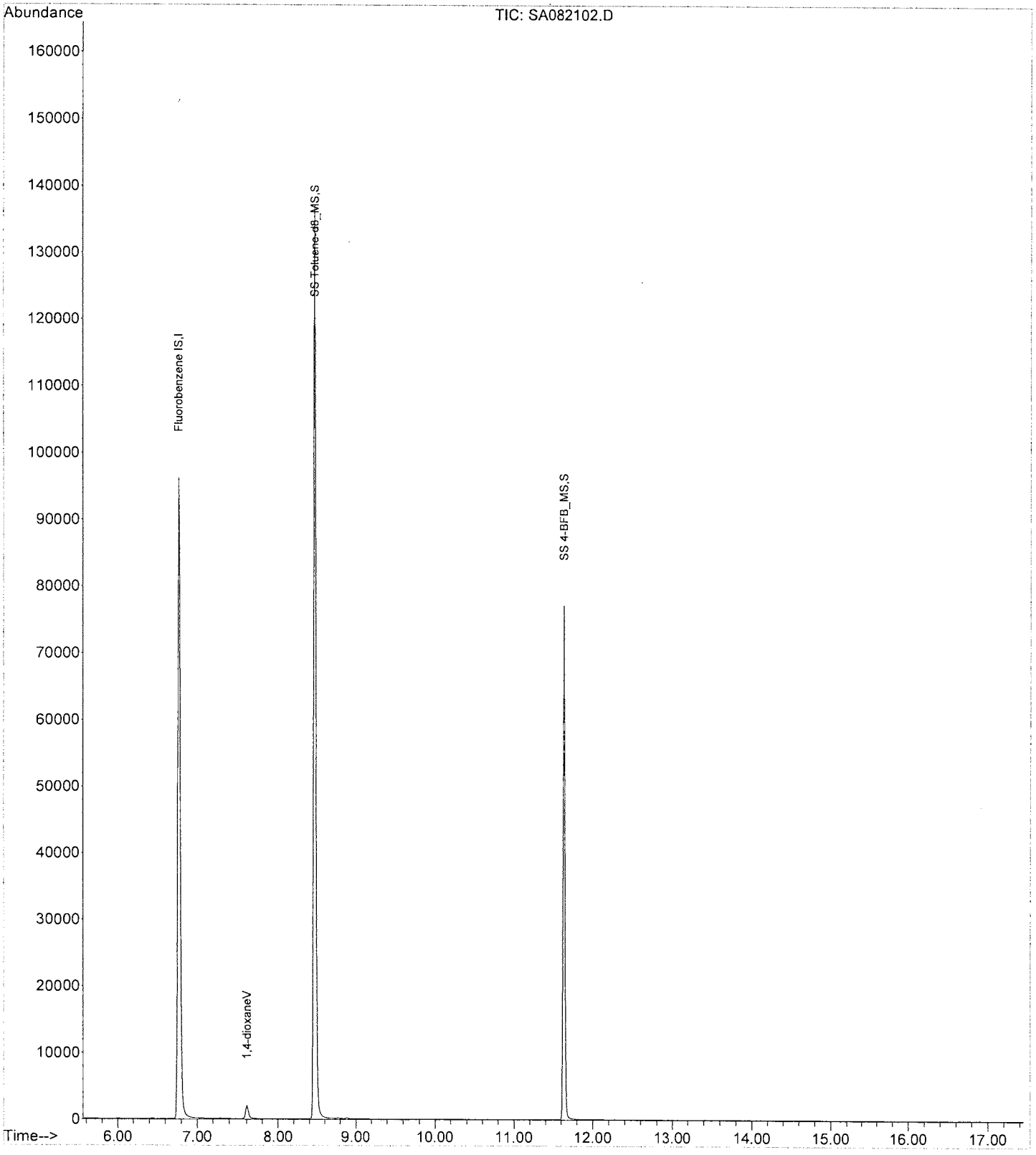
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	181533	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	182190	9.67	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.69%			
4) SS 4-BFB_MS	11.63	95	73262	10.85	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.54%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3067m	4.026	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:48 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

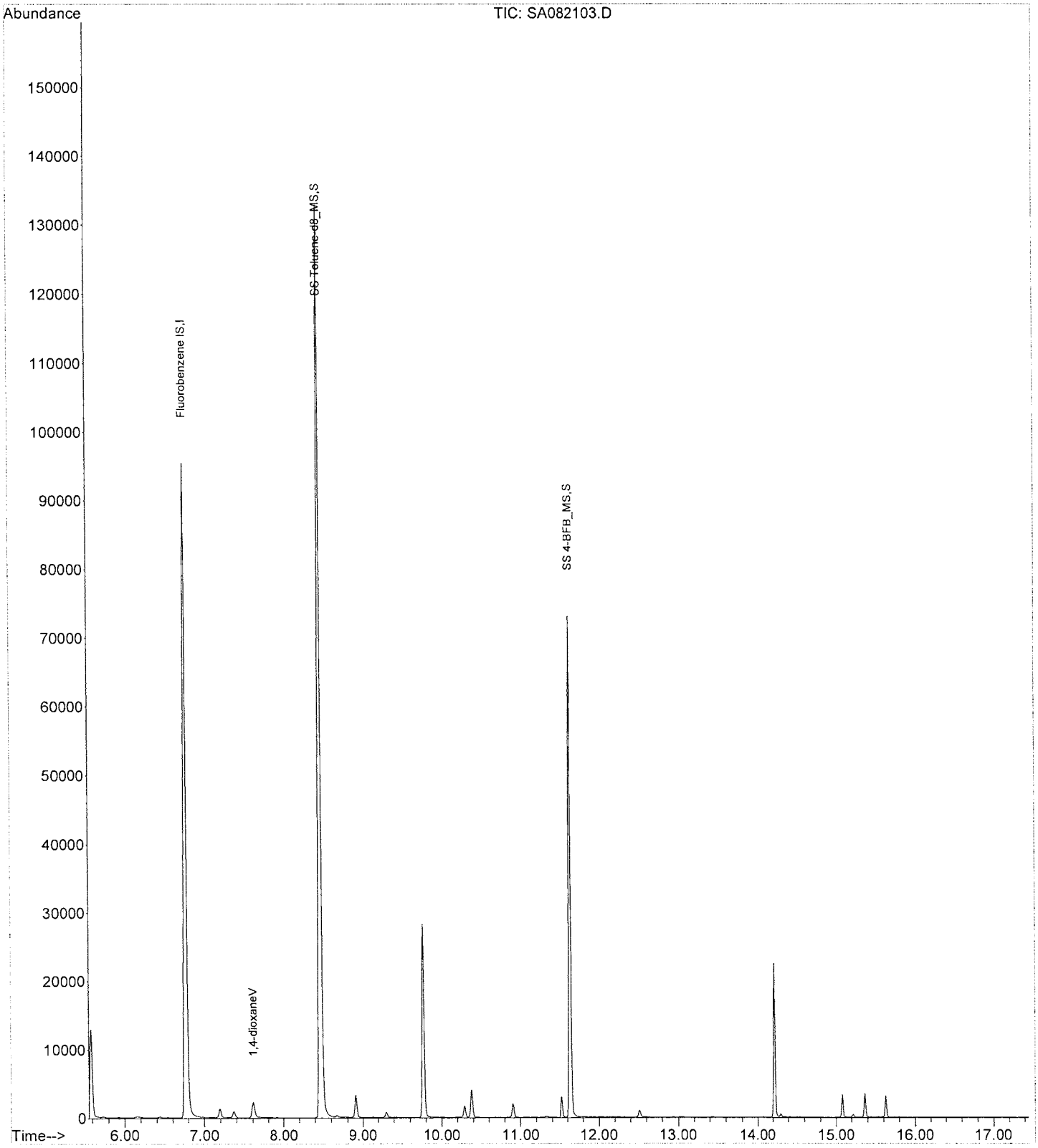
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178431	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176592	9.53	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.35%			
4) SS 4-BFB_MS	11.64	95	68955	10.39	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.93%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3230m	4.313	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:58 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

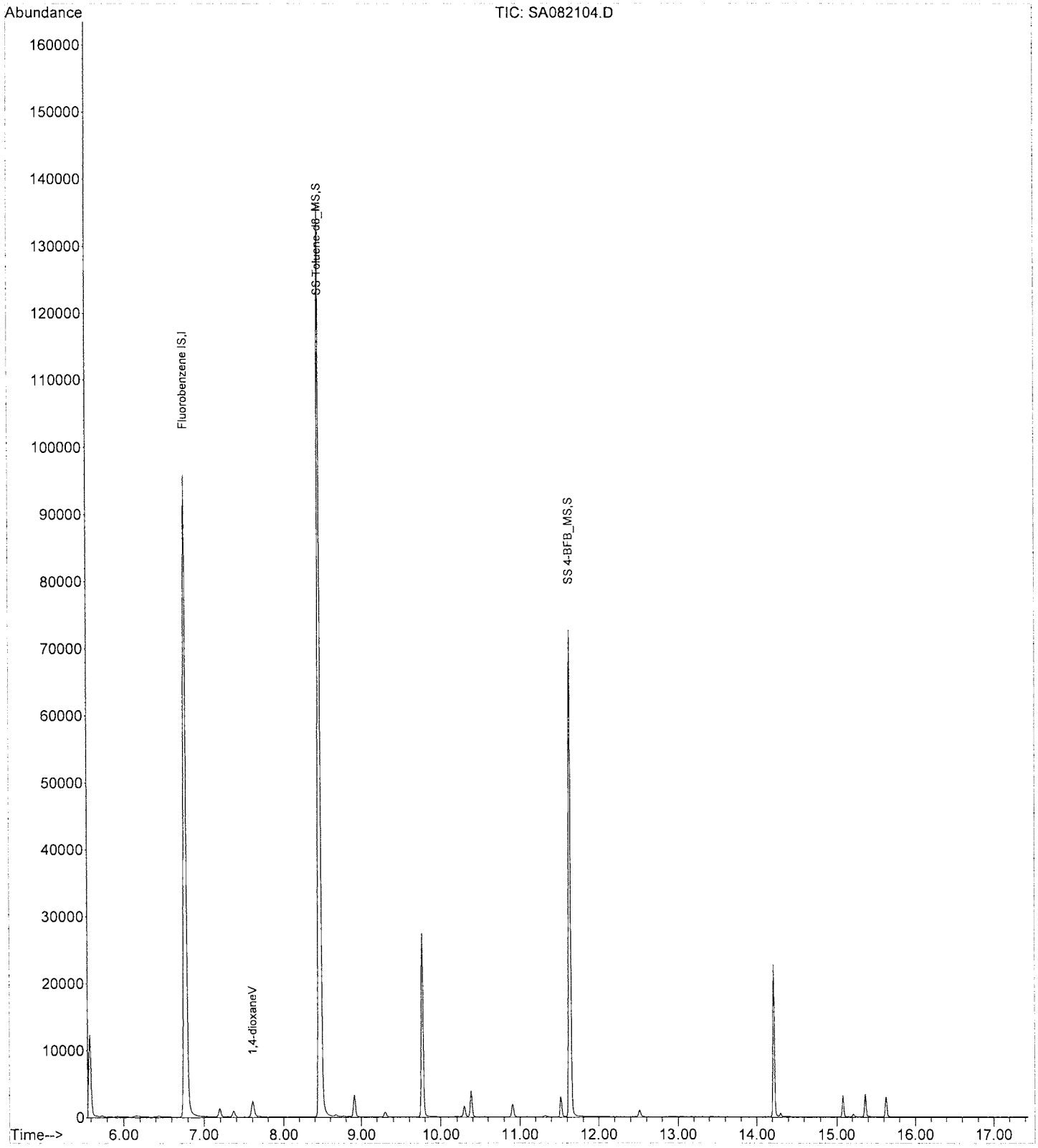
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178225	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178660	9.66	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.57%			
4) SS 4-BFB_MS	11.64	95	69038	10.42	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3330m	4.452	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:34:17 2013 Quant Results File: 2SIM0510.RES

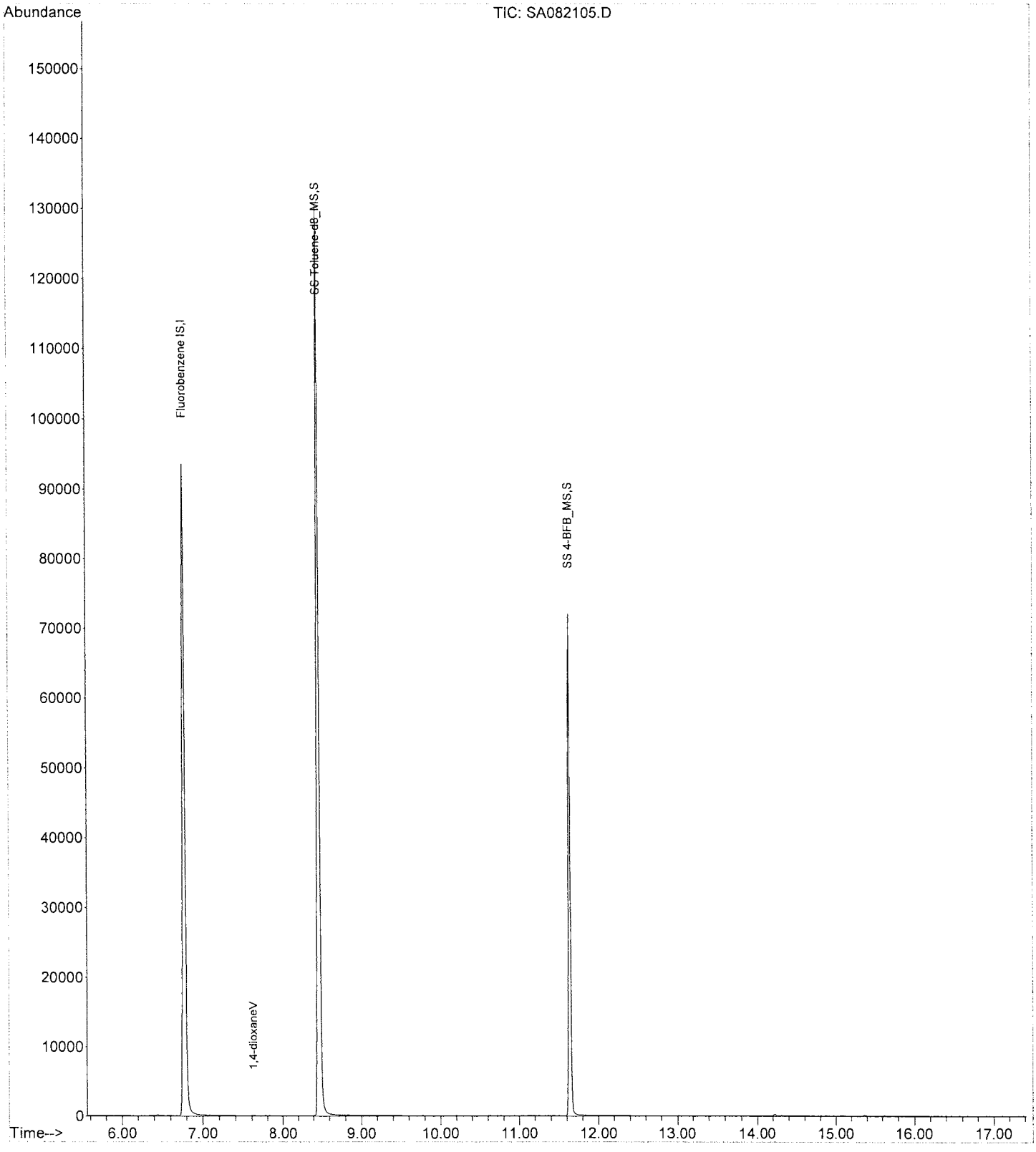
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176829	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	175780	9.58	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.77%			
4) SS 4-BFB_MS	11.64	95	68723	10.45	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.52%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	91m	0.123	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082108.D Vial: 8
Acq On : 21 Aug 2013 4:56 pm Operator: VG
Sample : 123650.01 Inst : VOAMS2
Misc : X5;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:24 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	174522	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	185064	10.22	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.16%			
4) SS 4-BFB_MS	11.64	95	69860	10.77	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.65%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1662	~~2.269~~ 1.22	ug/L	# 69

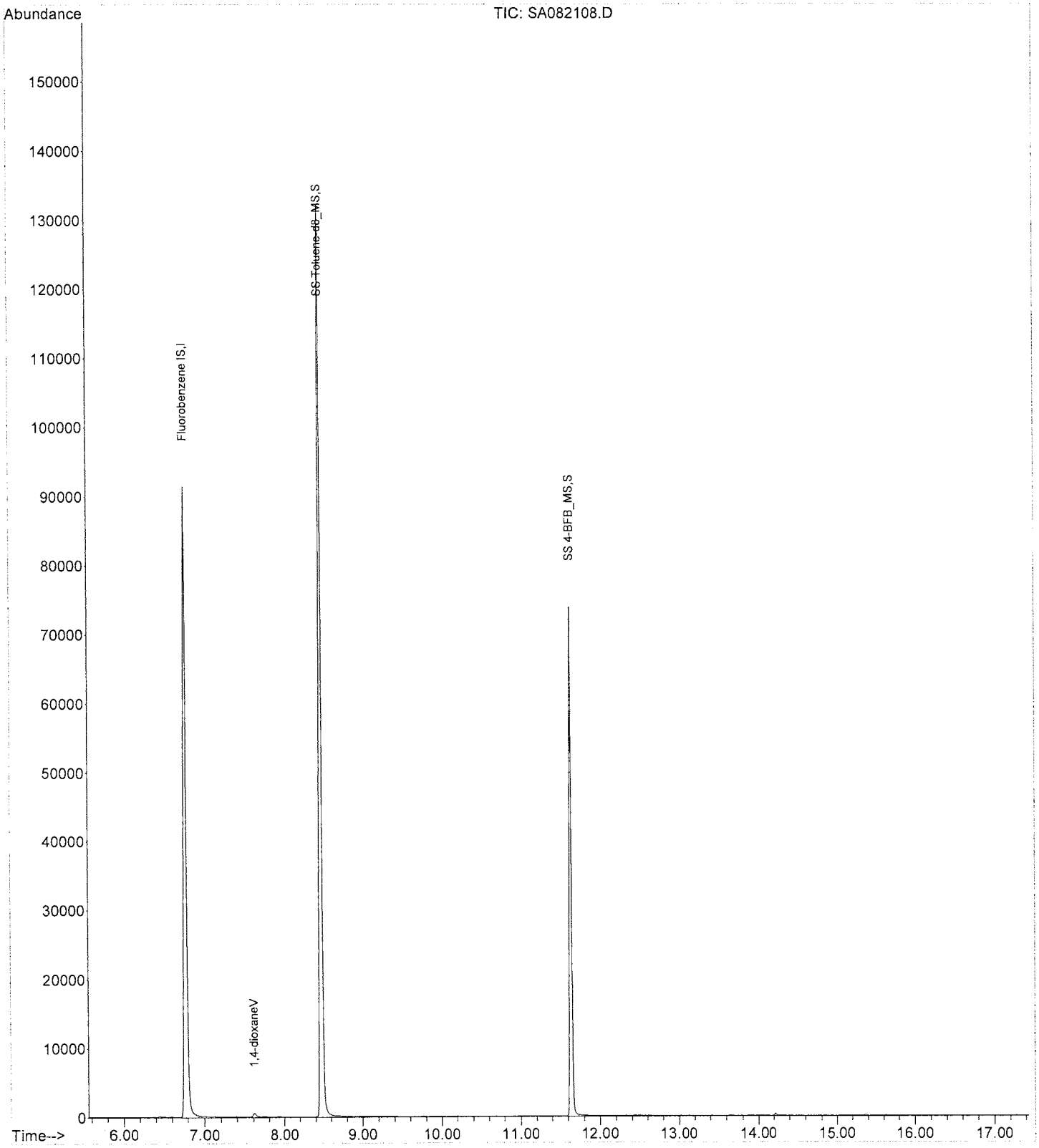
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082108.D 2SIM0510.M Thu Aug 22 09:01:24 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082108.D Vial: 8
Acq On : 21 Aug 2013 4:56 pm Operator: VG
Sample : 123650.01 Inst : VOAMS2
Misc : X5;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082109.D Vial: 9
Acq On : 21 Aug 2013 5:45 pm Operator: VG
Sample : 123650.03 Inst : VOAMS2
Misc : X5;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:27 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

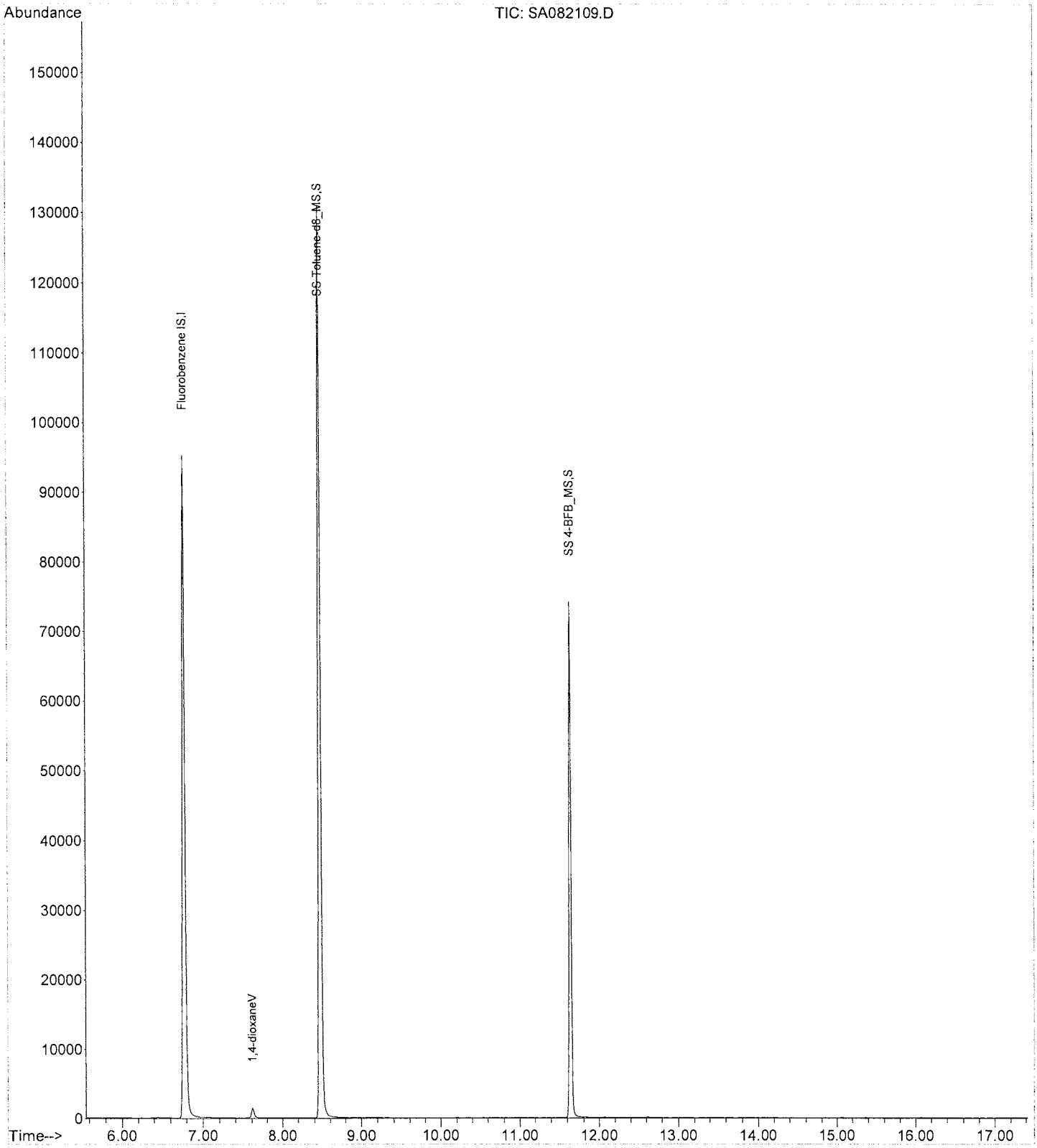
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	176431	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	183920	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.43%			
4) SS 4-BFB_MS	11.64	95	70092	10.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.84%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2148	2.901	ug/L	83

8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082109.D Vial: 9
Acq On : 21 Aug 2013 5:45 pm Operator: VG
Sample : 123650.03 Inst : VOAMS2
Misc : X5;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082110.D Vial: 10
Acq On : 21 Aug 2013 6:34 pm Operator: VG
Sample : 123650.04 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:30 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	177560	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	186054	10.09	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.95%			
4) SS 4-BFB_MS	11.64	95	70089	10.62	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.16%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	7327	~~9.833~~ 8.76	ug/L	85

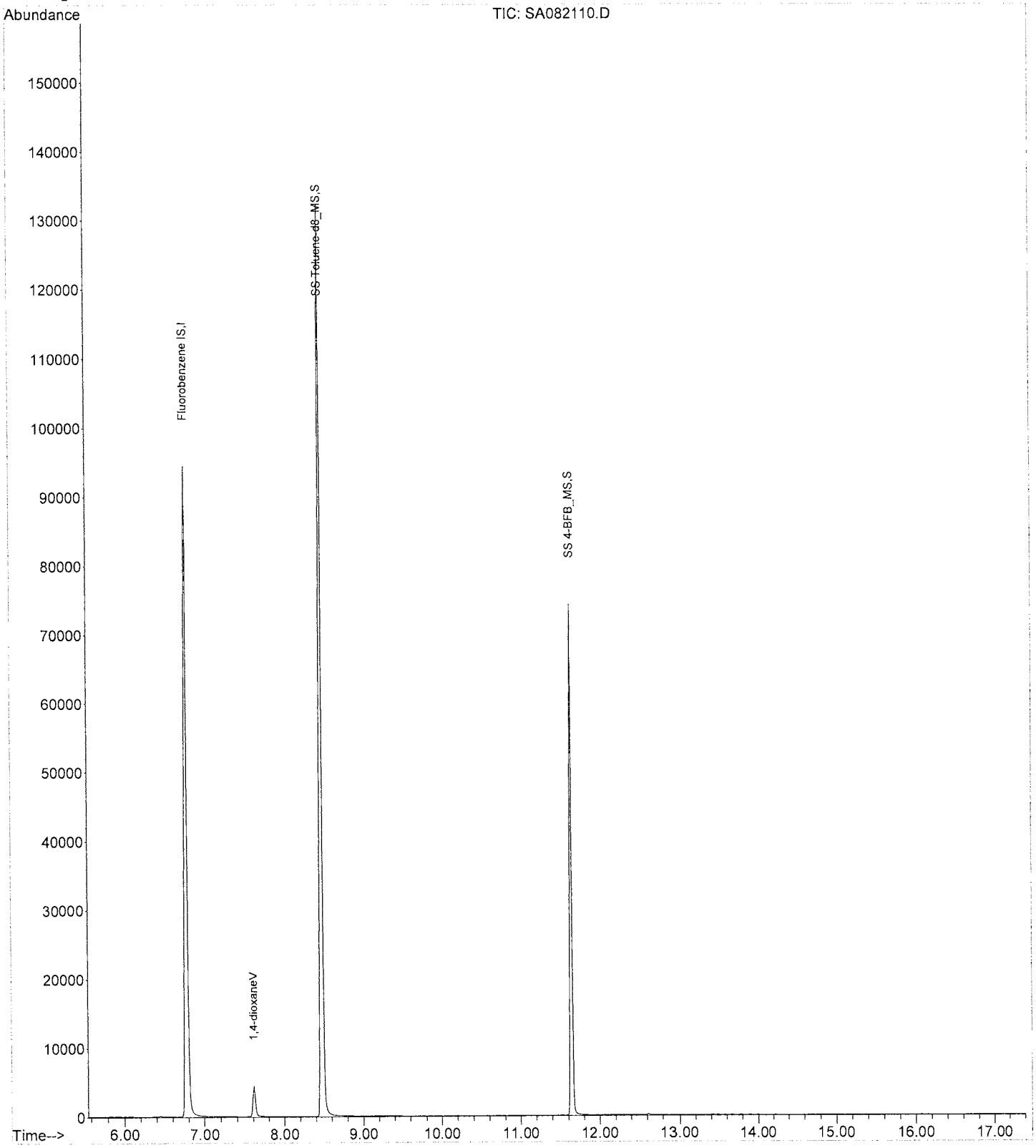
8/27/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082110.D Vial: 10
Acq On : 21 Aug 2013 6:34 pm Operator: VG
Sample : 123650.04 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082111.D Vial: 11
Acq On : 21 Aug 2013 7:22 pm Operator: VG
Sample : 123650.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:33 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	166242	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	165765	9.61	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.06%			
4) SS 4-BFB_MS	11.63	95	65836	10.65	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.51%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	134	0.192	ug/L	78

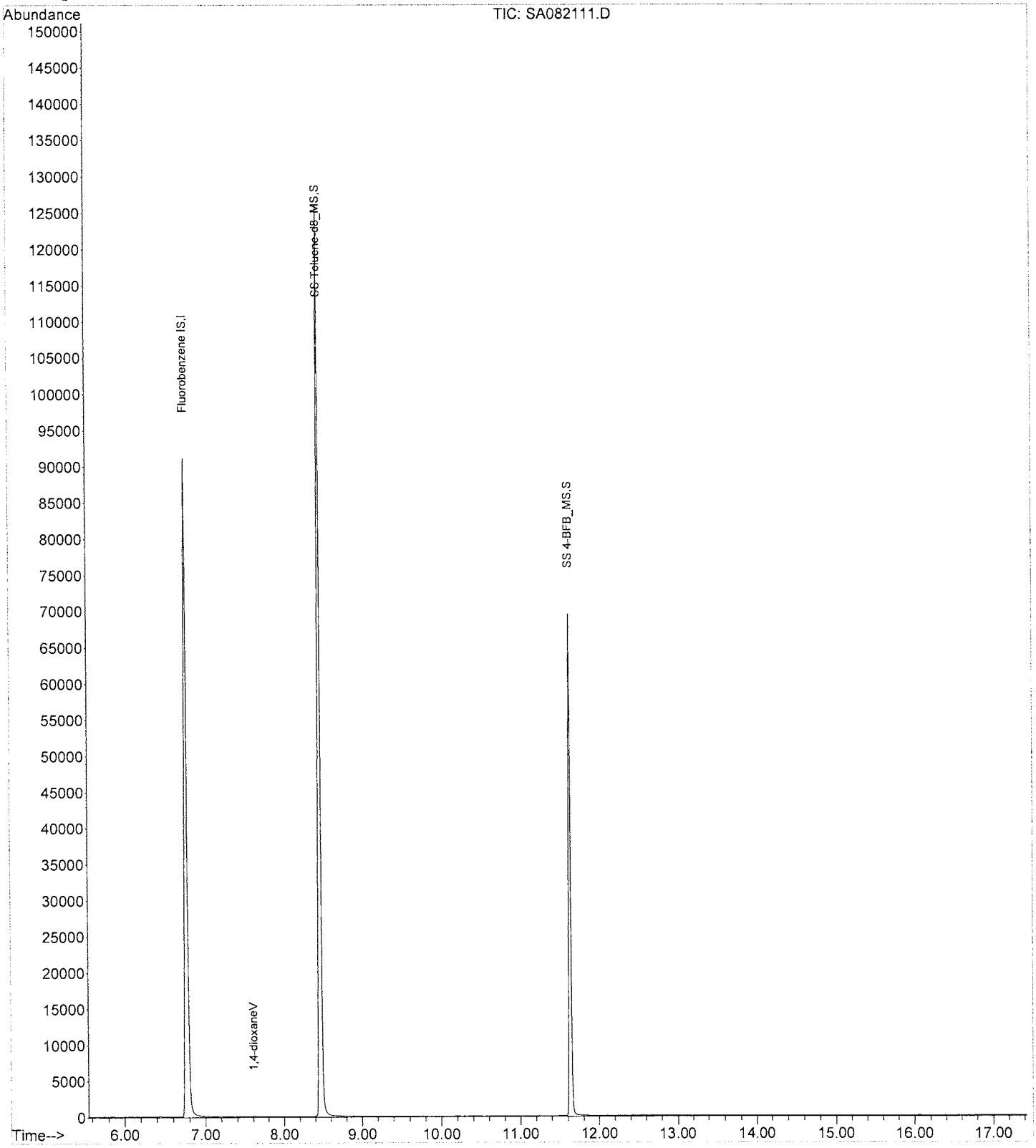
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082111.D 2SIM0510.M Thu Aug 22 09:01:33 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082111.D Vial: 11
Acq On : 21 Aug 2013 7:22 pm Operator: VG
Sample : 123650.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082116.D Vial: 16
Acq On : 21 Aug 2013 11:38 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:34:40 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

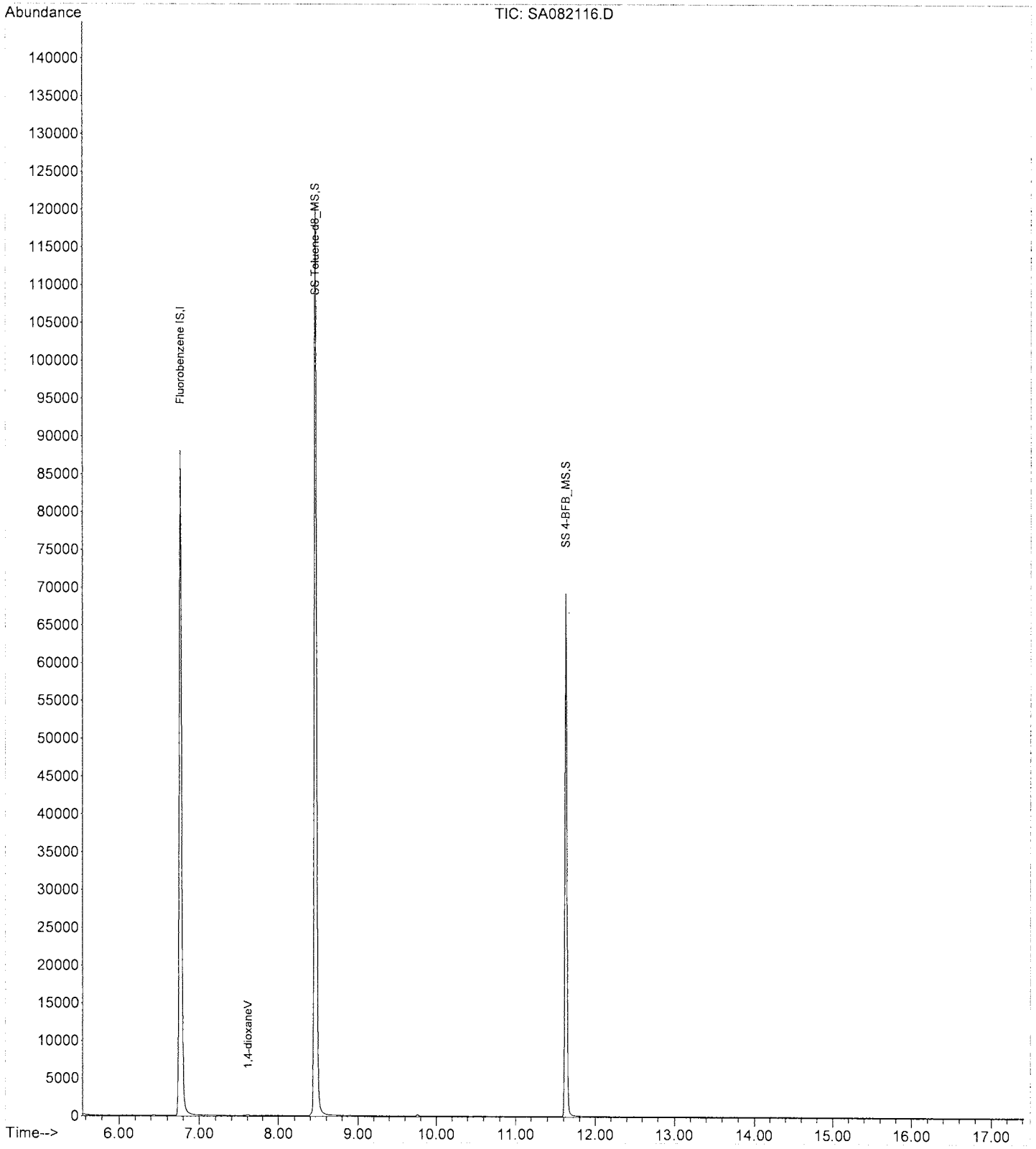
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.766	96	159681	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.462	98	167099	10.081	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.810%			
4) SS 4-BFB_MS	11.627	95	65454	11.024	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.240%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.609	88	207	0.309	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082116.D 2SIM0510.M Tue Sep 03 11:38:34 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082116.D Vial: 16
Acq On : 21 Aug 2013 11:38 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
professional laboratory & drilling services

123650
Metals by 200.8
Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15	1:10	Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets po	Sample
63	123649.01 MS	1:1 Sc mets po	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets po	Sample
74	123649.06 MS	1:1 Sc mets po	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets po	Sample
90	123739.13 MS	1:1 Sc mets po	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 MSpre		Sample
104	123529.10 MSpre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

Last ~~good~~ passing QC set.
autosampler malfunctions
Not Reporting any As, Mn

auto sampler malfuctions

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 M$post	Sample
120	123529.20 M$post	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 M$post	Sample
135	123739.03 M$post	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 M$post	Sample
150	123739.19 M$post	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74169.7

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168.7

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L				Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000	Be	9	5122.086	ug/L	102.44		5000
B	10	0.547369	ug/L				B	10	1.337862	ug/L			
Ag	107	1962.435	ug/L	98.12		2000	Ag	107	4892.98	ug/L	97.86		5000
Ag	109	1948.06	ug/L	97.40		2000	Ag	109	4852.101	ug/L	97.04		5000
Al	27	1786.075	ug/L	89.30		2000	Al	27	4443.011	ug/L	88.86		5000
As	75	2080.388	ug/L	104.02		2000	As	75	5233.348	ug/L	104.67		5000
Ba	138	2107.411	ug/L	105.37		2000	Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L				Bi	209		ug/L			
Br	79		ug/L				Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000	Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L				Cl	35		ug/L			
ClO	51		ug/L				ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000	Cr	53	5487.522	ug/L	109.75		5000
Cu	63	2051.496	ug/L	102.57		2000	Cu	63	4992.413	ug/L	99.85		5000
Cu	65	2047.486	ug/L	102.37		2000	Cu	65	4962.615	ug/L	99.25		5000
Fe	54	2052.748	ug/L	102.64		2000	Fe	54	5075.569	ug/L	101.51		5000
Fe	56	1994.66	ug/L	99.73		2000	Fe	56	5038.408	ug/L	100.77		5000
Fe	57	1953.271	ug/L	97.66		2000	Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		92.208		Ge	72		ug/L		89.389	
Hg	200	0.069113	ug/L				Hg	200	0.163319	ug/L			
Hg	202	0.075451	ug/L				Hg	202	0.157861	ug/L			
Ho	165		ug/L		101.26		Ho	165		ug/L		99.877	
In	115		ug/L		96.089		In	115		ug/L		93.603	
K	39	1912.769	ug/L	95.64		2000	K	39	4629.843	ug/L	92.60		5000
Mg	24	1842.793	ug/L	92.14		2000	Mg	24	4520.756	ug/L	90.42		5000
Mg	25	1644.939	ug/L	82.25		2000	Mg	25	4489.597	ug/L	89.79		5000
Mo	95	2209.171	ug/L	110.46		2000	Mo	95	5631.358	ug/L	112.63		5000
Na	23	1874.281	ug/L	93.71		2000	Na	23	4579.596	ug/L	91.59		5000
Ni	60	2121.476	ug/L	106.07		2000	Ni	60	5242.275	ug/L	104.85		5000
Ni	62	2001.711	ug/L	100.09		2000	Ni	62	4886.569	ug/L	97.73		5000
P	31	-1.88364	ug/L				P	31	-4.44807	ug/L			
Pb	208	2130.234	ug/L	106.51		2000	Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L				Rh	103		ug/L			
S	32		ug/L				S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000	Sb	121	5322.991	ug/L	106.46		5000
Se	82	1988.486	ug/L	99.42		2000	Se	82	5011.986	ug/L	100.24		5000
Se	77	1881.467	ug/L	94.07		2000	Se	77	4637.123	ug/L	92.74		5000
Se	78	1878.803	ug/L	93.94		2000	Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L				Si	28		ug/L			
Tb	159		ug/L				Tb	159		ug/L			
Ti	47	0.078613	ug/L				Ti	47	0.20214	ug/L			
Zn	64	1941.876	ug/L	97.09		2000	Zn	64	4788.644	ug/L	95.77		5000
Zn	66	1964.373	ug/L	98.22		2000	Zn	66	4809.177	ug/L	96.18		5000
Zn	68	2024.79	ug/L	101.19		2001	Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		85.830
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.208
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 96.089
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 101.260
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 89.389
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
> Rh
| Ag
| Ag
| Cd
| Cd
> In 93.603
| Sb
| Sb
| Ba
| Ba
> Tb
> Ho 99.877
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 14:32:52	Sample Date/Time:	Wednesday, August 21, 2013 17:20:00
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1	Ag	107	0.11138	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1	Ag	109	0.119796	ug/L		< 1
Al	27	-0.26208	ug/L		< 50	Al	27	-0.096673	ug/L		< 50
As	75	-0.071958	ug/L		< 1	As	75	-0.107506	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1	Ba	137	0.009978	ug/L		< 1
Ba	138	0.000189	ug/L		< 1	Ba	138	0.013973	ug/L		< 1
Be	9	-0.011526	ug/L		< 1	Be	9	-0.013222	ug/L		< 1
Ca	44	1.285014	ug/L		< 50	Ca	44	2.131988	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1	Cd	111	-0.044567	ug/L		< 1
Cd	114	0.007666	ug/L		< 1	Cd	114	-0.038087	ug/L		< 1
Co	59	-0.060007	ug/L		< 1	Co	59	-0.0905	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1	Cr	52	0.017578	ug/L		< 1
Cu	63	0.021397	ug/L		< 1	Cu	63	0.021827	ug/L		< 1
Cu	65	0.029362	ug/L		< 1	Cu	65	0.027876	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50	Fe	54	-4.694121	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50	Fe	56	0.7008	ug/L		< 50
Fe	57	0.03486	ug/L		< 50	Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	98.551		Ge	72		ug/L	92.793	
Hg	200	0.000835	ug/L		< 0.2	Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2	Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	99.821		Ho	165		ug/L	95.506	
In	115		ug/L	97.623		In	115		ug/L	93.097	
K	39	-1.029991	ug/L		< 50	K	39	-2.584433	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50	Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50	Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5	Mn	55	-0.0295	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000	Na	23	-0.140785	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1	Ni	60	0.004618	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1	Ni	62	-0.035148	ug/L		< 1
P	31	-0.685617	ug/L		< 50	P	31	-4.843357	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1	Pb	208	-0.004769	ug/L		< 1
Sb	121	0.072129	ug/L		< 1	Sb	121	-0.001531	ug/L		< 1
Sb	123	0.074335	ug/L		< 1	Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	98.465		Sc	45		ug/L	92.391	
Se	82	0.043643	ug/L		< 1	Se	82	-0.033791	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1	Tl	205	-0.068961	ug/L		< 1
V	51	0.220601	ug/L		< 1	V	51	0.347795	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5	Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 18:51:22
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1
Ag	109	0.382578	ug/L		< 1
Al	27	-0.04987	ug/L		< 50
As	75	-0.029484	ug/L		< 1
Ba	137	0.00932	ug/L		< 1
Ba	138	0.013228	ug/L		< 1
Be	9	-0.010209	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1
Co	59	-0.098027	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1
Cu	63	0.069722	ug/L		< 1
Cu	65	0.073293	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50
Ge	72		ug/L	82.019	
Hg	200	0.002538	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2
Ho	165		ug/L	95.831	
In	115		ug/L	88.586	
K	39	-5.938476	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1
P	31	0.144733	ug/L		< 50
Pb	208	0.003305	ug/L		< 1
Sb	121	0.546547	ug/L		< 1
Sb	123	0.557478	ug/L		< 1
Sc	45		ug/L	83.518	
Se	82	-0.069326	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1
V	51	-0.169861	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 20:22:45
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.409088	ug/L		< 1
Ag	109	0.462557	ug/L		< 1
Al	27	-0.058166	ug/L		< 50
As	75	0.021676	ug/L		< 1
Ba	137	0.012484	ug/L		< 1
Ba	138	0.01333	ug/L		< 1
Be	9	-0.001978	ug/L		< 1
Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.07032	ug/L		< 1
Co	59	-0.099707	ug/L		< 1
Cr	52	-0.090933	ug/L		< 1
Cu	63	0.082017	ug/L		< 1
Cu	65	0.073695	ug/L		< 1
Fe	54	-6.674499	ug/L		< 50
Fe	56	-55.093425	ug/L		< 50
Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	83.541	
Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	97.845	
In	115		ug/L	89.505	
K	39	-6.379123	ug/L		< 50
Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.022123	ug/L		< 5
Na	23	0.056546	ug/L		< 5000
Ni	60	0.008771	ug/L		< 1
Ni	62	-0.024023	ug/L		< 1
P	31	-2.824856	ug/L		< 50
Pb	208	0.008953	ug/L		< 1
Sb	121	0.723441	ug/L		< 1
Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	82.676	
Se	82	0.060139	ug/L		< 1
Tl	205	-0.045467	ug/L		< 1
V	51	-0.214544	ug/L		< 1
Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 21:54:09	Sample Date/Time:	Wednesday, August 21, 2013 23:25:34
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.153846	ug/L		< 1	Ag	107	0.155097	ug/L		< 1
Ag	109	0.15035	ug/L		< 1	Ag	109	0.156398	ug/L		< 1
Al	27	0.013772	ug/L		< 50	Al	27	0.049873	ug/L		< 50
As	75	0.37065	ug/L		< 1	As	75	0.319848	ug/L		< 1
Ba	137	0.01947	ug/L		< 1	Ba	137	0.01958	ug/L		< 1
Ba	138	0.021745	ug/L		< 1	Ba	138	0.021384	ug/L		< 1
Be	9	0.004878	ug/L		< 1	Be	9	0.004036	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50	Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1	Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1	Cd	114	-0.063347	ug/L		< 1
Co	59	-0.10566	ug/L		< 1	Co	59	-0.109626	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1	Cr	52	-0.075727	ug/L		< 1
Cu	63	0.163582	ug/L		< 1	Cu	63	0.09756	ug/L		< 1
Cu	65	0.161789	ug/L		< 1	Cu	65	0.094357	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50	Fe	54	-2.050464	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50	Fe	56	-4.061431	ug/L		< 50
Fe	57	2.66129	ug/L		< 50	Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	85.734		Ge	72		ug/L	84.343	
Hg	200	0.007564	ug/L		< 0.2	Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2	Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	96.63		Ho	165		ug/L	95.521	
In	115		ug/L	90.015		In	115		ug/L	89.464	
K	39	-3.247278	ug/L		< 50	K	39	-3.193172	ug/L		< 50
Mg	24	0.269698	ug/L		< 50	Mg	24	0.229747	ug/L		< 50
Mg	25	0.317386	ug/L		< 50	Mg	25	0.143982	ug/L		< 50
Mn	55	0.018114	ug/L		< 5	Mn	55	-0.007129	ug/L		< 5
Na	23	4.750616	ug/L		< 5000	Na	23	4.091156	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1	Ni	60	0.014038	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1	Ni	62	-0.037908	ug/L		< 1
P	31	-0.93812	ug/L		< 50	P	31	-3.357474	ug/L		< 50
Pb	208	0.033931	ug/L		< 1	Pb	208	0.029733	ug/L		< 1
Sb	121	0.653921	ug/L		< 1	Sb	121	1.653256	ug/L		< 1
Sb	123	0.671316	ug/L		< 1	Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.08		Sc	45		ug/L	85.39	
Se	82	0.575163	ug/L		< 1	Se	82	0.458721	ug/L		< 1
Tl	205	0.003967	ug/L		< 1	Tl	205	-0.01207	ug/L		< 1
V	51	-0.280011	ug/L		< 1	V	51	-0.30454	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5	Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 00:57:05
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.152331	ug/L		< 1
Ag	109	0.15027	ug/L		< 1
Al	27	-0.03779	ug/L		< 50
As	75	0.057719	ug/L		< 1
Ba	137	0.010942	ug/L		< 1
Ba	138	0.015616	ug/L		< 1
Be	9	-0.011321	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1
Co	59	-0.115011	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1
Cu	63	0.036833	ug/L		< 1
Cu	65	0.037452	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50
Fe	57	1.44184	ug/L		< 50
Ge	72		ug/L	82.371	
Hg	200	0.001505	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2
Ho	165		ug/L	98.75	
In	115		ug/L	90.548	
K	39	-3.35505	ug/L		< 50
Mg	24	0.204655	ug/L		< 50
Mg	25	0.12711	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5
Na	23	2.807046	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1
P	31	-0.22554	ug/L		< 50
Pb	208	0.002268	ug/L		< 1
Sb	121	0.174891	ug/L		< 1
Sb	123	0.17576	ug/L		< 1
Sc	45		ug/L	81.683	
Se	82	0.112483	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1
V	51	-0.328191	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 02:28:35
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	1.288914	ug/L		< 1
Ag	109	1.28419	ug/L		< 1
Al	27	0.044205	ug/L		< 50
As	75	0.225436	ug/L		< 1
Ba	137	0.018145	ug/L		< 1
Ba	138	0.017597	ug/L		< 1
Be	9	-0.003792	ug/L		< 1
Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.062216	ug/L		< 1
Co	59	-0.110973	ug/L		< 1
Cr	52	-0.064696	ug/L		< 1
Cu	63	0.072073	ug/L		< 1
Cu	65	0.06893	ug/L		< 1
Fe	54	-3.680317	ug/L		< 50
Fe	56	-47.09427	ug/L		< 50
Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	80.61	
Hg	200	0.005209	ug/L		< 0.2
Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	97.019	
In	115		ug/L	88.977	
K	39	-3.434466	ug/L		< 50
Mg	24	0.148344	ug/L		< 50
Mg	25	0.037963	ug/L		< 50
Mn	55	0.008374	ug/L		< 5
Na	23	5.300602	ug/L		< 5000
Ni	60	0.012988	ug/L		< 1
Ni	62	-0.005112	ug/L		< 1
P	31	-2.730091	ug/L		< 50
Pb	208	0.018434	ug/L		< 1
Sb	121	1.521021	ug/L		< 1
Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	80.611	
Se	82	0.174458	ug/L		< 1
Tl	205	-0.053724	ug/L		< 1
V	51	-0.309052	ug/L		< 1
Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 04:00:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.109538	ug/L		< 1
Ag	109	0.107885	ug/L		< 1
Al	27	-0.008883	ug/L		< 50
As	75	0.127157	ug/L		< 1
Ba	137	0.016023	ug/L		< 1
Ba	138	0.016167	ug/L		< 1
Be	9	-0.007956	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1
Co	59	-0.114875	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1
Cu	63	0.032424	ug/L		< 1
Cu	65	0.030497	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50
Ge	72		ug/L	80.444	
Hg	200	0.001923	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2
Ho	165		ug/L	95.511	
In	115		ug/L	88.955	
K	39	-3.001431	ug/L		< 50
Mg	24	0.309671	ug/L		< 50
Mg	25	0.298606	ug/L		< 50
Mn	55	0.023224	ug/L		< 5
Na	23	7.000406	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1
P	31	-0.44829	ug/L		< 50
Pb	208	0.001211	ug/L		< 1
Sb	121	0.079278	ug/L		< 1
Sb	123	0.083749	ug/L		< 1
Sc	45		ug/L	81.009	
Se	82	0.129524	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1
V	51	-0.509723	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 05:31:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.005663	ug/L		< 1
Ag	109	0.010628	ug/L		< 1
Al	27	-0.502926	ug/L		< 50
As	75	1.129123	ug/L		< 1
Ba	137	-0.010148	ug/L		< 1
Ba	138	-0.008275	ug/L		< 1
Be	9	-0.015683	ug/L		< 1
Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.039959	ug/L		< 1
Co	59	0.012542	ug/L		< 1
Cr	52	-0.491944	ug/L		< 1
Cu	63	-0.001465	ug/L		< 1
Cu	65	-0.006339	ug/L		< 1
Fe	54	284.471578	ug/L		< 50
Fe	56	-129.55362	ug/L		< 50
Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	129.949	
Hg	200	-0.003001	ug/L		< 0.2
Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	141.908	
In	115		ug/L	125.817	
K	39	-31.826232	ug/L		< 50
Mg	24	-0.136734	ug/L		< 50
Mg	25	-0.19183	ug/L		< 50
Mn	55	0.061396	ug/L		< 5
Na	23	1.090327	ug/L		< 5000
Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.076872	ug/L		< 1
P	31	26.141474	ug/L		< 50
Pb	208	-0.007794	ug/L		< 1
Sb	121	0.002988	ug/L		< 1
Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	141.513	
Se	82	-0.152989	ug/L		< 1
Tl	205	-0.081941	ug/L		< 1
V	51	-2.241279	ug/L		< 1
Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 07:03:30
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1
Al	27	-0.524824	ug/L		< 50
As	75	1.098666	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1
Be	9	-0.016149	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1
Co	59	-0.033016	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1
Fe	54	318.31098	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50
Ge	72		ug/L	135.534	
Hg	200	-0.00305	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2
Ho	165		ug/L	135.791	
In	115		ug/L	133.042	
K	39	-33.575308	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50
Mn	55	0.05205	ug/L		< 5
Na	23	0.12898	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1
P	31	28.414772	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1
Sc	45		ug/L	135.399	
Se	82	-0.162972	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1
V	51	-2.302445	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 08:35:16
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524517	ug/L		< 50
As	75	1.054567	ug/L		< 1
Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.009079	ug/L		< 1
Be	9	-0.014621	ug/L		< 1
Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.090179	ug/L		< 1
Co	59	-0.078269	ug/L		< 1
Cr	52	-0.47418	ug/L		< 1
Cu	63	0.0013	ug/L		< 1
Cu	65	-0.003215	ug/L		< 1
Fe	54	319.135316	ug/L		< 50
Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.134	
Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	140.956	
In	115		ug/L	144.07	
K	39	-32.805094	ug/L		< 50
Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.229129	ug/L		< 50
Mn	55	0.048782	ug/L		< 5
Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.061371	ug/L		< 1
P	31	27.860573	ug/L		< 50
Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	130.84	
Se	82	-0.404338	ug/L		< 1
Tl	205	-0.093371	ug/L		< 1
V	51	-2.29718	ug/L		< 1
Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 09:33:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.095298	ug/L		< 1
Ag	109	0.094355	ug/L		< 1
Al	27	0.075903	ug/L		< 50
As	75	-0.03098	ug/L		< 1
Ba	137	0.017392	ug/L		< 1
Ba	138	0.020186	ug/L		< 1
Be	9	-0.010611	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1
Co	59	-0.137349	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1
Cu	63	0.039414	ug/L		< 1
Cu	65	0.031906	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50
Ge	72		ug/L	89.373	
Hg	200	0.000491	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2
Ho	165		ug/L	98.89	
In	115		ug/L	92.57	
K	39	-4.157267	ug/L		< 50
Mg	24	0.574241	ug/L		< 50
Mg	25	0.636205	ug/L		< 50
Mn	55	0.021759	ug/L		< 5
Na	23	2.780659	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1
P	31	-0.173755	ug/L		< 50
Pb	208	0.001538	ug/L		< 1
Sb	121	0.078009	ug/L		< 1
Sb	123	0.087634	ug/L		< 1
Sc	45		ug/L	85.875	
Se	82	0.043633	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1
V	51	-0.596453	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 11:24:19
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.090915	ug/L		< 1
Ag	109	0.09819	ug/L		< 1
Al	27	0.047217	ug/L		< 50
As	75	-0.030436	ug/L		< 1
Ba	137	0.016176	ug/L		< 1
Ba	138	0.020659	ug/L		< 1
Be	9	-0.011288	ug/L		< 1
Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.082977	ug/L		< 1
Co	59	-0.147596	ug/L		< 1
Cr	52	-0.06319	ug/L		< 1
Cu	63	0.038297	ug/L		< 1
Cu	65	0.034062	ug/L		< 1
Fe	54	-1.456751	ug/L		< 50
Fe	56	-0.025537	ug/L		< 50
Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	86.417	
Hg	200	0.00115	ug/L		< 0.2
Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	100.905	
In	115		ug/L	92.826	
K	39	-0.314828	ug/L		< 50
Mg	24	0.573024	ug/L		< 50
Mg	25	0.393241	ug/L		< 50
Mn	55	0.02926	ug/L		< 5
Na	23	4.257669	ug/L		< 5000
Ni	60	0.00676	ug/L		< 1
Ni	62	-0.003664	ug/L		< 1
P	31	0.06278	ug/L		< 50
Pb	208	0.000639	ug/L		< 1
Sb	121	0.071262	ug/L		< 1
Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.343	
Se	82	0.023146	ug/L		< 1
Tl	205	-0.073176	ug/L		< 1
V	51	-0.366388	ug/L		< 1
Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 13:43:03
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1
Ag	109	0.640631	ug/L		< 1
Al	27	0.09732	ug/L		< 50
As	75	0.128392	ug/L		< 1
Ba	137	0.023246	ug/L		< 1
Ba	138	0.021737	ug/L		< 1
Be	9	-0.002378	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1
Co	59	-0.14108	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1
Cu	63	0.072079	ug/L		< 1
Cu	65	0.082805	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50
Fe	57	2.699095	ug/L		< 50
Ge	72		ug/L	79.059	
Hg	200	0.003667	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2
Ho	165		ug/L	92.372	
In	115		ug/L	86.481	
K	39	-0.06939	ug/L		< 50
Mg	24	0.658856	ug/L		< 50
Mg	25	0.529086	ug/L		< 50
Mn	55	0.027991	ug/L		< 5
Na	23	4.666609	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1
P	31	0.073182	ug/L		< 50
Pb	208	0.015682	ug/L		< 1
Sb	121	1.267409	ug/L		< 1
Sb	123	1.287874	ug/L		< 1
Sc	45		ug/L	- 76.201	
Se	82	0.150628	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1
V	51	-0.220549	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 14:35:14
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.222791	ug/L		< 1
Ag	109	0.224883	ug/L		< 1
Al	27	0.500197	ug/L		< 50
As	75	-0.06713	ug/L		< 1
Ba	137	0.017237	ug/L		< 1
Ba	138	0.021829	ug/L		< 1
Be	9	-0.010387	ug/L		< 1
Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.085964	ug/L		< 1
Co	59	-0.146151	ug/L		< 1
Cr	52	-0.045782	ug/L		< 1
Cu	63	0.041847	ug/L		< 1
Cu	65	0.035843	ug/L		< 1
Fe	54	4.533522	ug/L		< 50
Fe	56	-35.057302	ug/L		< 50
Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.142	
Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	93.451	
In	115		ug/L	87.75	
K	39	0.959589	ug/L		< 50
Mg	24	0.990964	ug/L		< 50
Mg	25	0.888904	ug/L		< 50
Mn	55	0.014971	ug/L		< 5
Na	23	5.109504	ug/L		< 5000
Ni	60	0.00981	ug/L		< 1
Ni	62	-0.00789	ug/L		< 1
P	31	0.284032	ug/L		< 50
Pb	208	0.007423	ug/L		< 1
Sb	121	0.253468	ug/L		< 1
Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.542	
Se	82	0.06488	ug/L		< 1
Tl	205	-0.051882	ug/L		< 1
V	51	-0.227237	ug/L		< 1
Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929		1
Hg	202	1.040778	ug/L	104.078		1
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662		1000
Mg	24	103.781446	ug/L	103.368		100
Mg	25	101.910134	ug/L	101.504		100
Mn	55	101.057709	ug/L	100.455		100
Na	23	100.277066	ug/L	98.795		100
Ni	60	102.584982	ug/L	102.176		100
Ni	62	102.933276	ug/L	102.523		100
Pb	208	99.694126	ug/L	98.903		100
Sb	121	100.398697	ug/L	99.999		100
Sb	123	100.622444	ug/L	100.222		100
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043		100
Tl	205	99.216104	ug/L	99.515		100
V	51	101.059419	ug/L	100.059		100
Zn	64	107.272953	ug/L	106.846		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593		1
Hg	202	1.040768	ug/L	104.077		1
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252		1000
Mg	24	98.319154	ug/L	97.927		100
Mg	25	96.031291	ug/L	95.649		100
Mn	55	98.959577	ug/L	98.369		100
Na	23	96.168791	ug/L	94.748		100
Ni	60	100.55402	ug/L	100.153		100
Ni	62	102.661248	ug/L	102.252		100
Pb	208	98.323004	ug/L	97.543		100
Sb	121	99.99654	ug/L	99.598		100
Sb	123	99.453167	ug/L	99.057		100
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583		100
Tl	205	97.452476	ug/L	97.746		100
V	51	101.271779	ug/L	100.269		100
Zn	64	109.836832	ug/L	109.399		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4		10000
Mg	24	9880.11872	ug/L	98.801		10000
Mg	25	9759.45121	ug/L	97.595		10000
Na	23	9883.02508	ug/L	98.83		10000
P	31	9713.82327	ug/L	97.138		10000
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896		10000
Mg	24	8956.63881	ug/L	89.566		10000
Mg	25	8963.69564	ug/L	89.637		10000
Na	23	9024.94466	ug/L	90.249		10000
P	31	9411.4984	ug/L	94.115		10000
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 14:52:24
Sample Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 17:33:02
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1	Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.528061	ug/L	107.807		31.1	Ag	109	33.401584	ug/L	107.401		31.1
Al	27	175.79957	ug/L	108.518		162	Al	27	170.207121	ug/L	105.066		162
As	75	44.004738	ug/L	108.654		40.5	As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.819208	ug/L	101.974		26.3	Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.677018	ug/L	108.212		53.3	Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.935119	ug/L	101.525		48.2	Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.027357	ug/L	101.717		48.2	Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.704507	ug/L	108.555		24.6	Co	59	26.02674	ug/L	105.8		24.6
Cr	52	12.125672	ug/L	105.441		11.5	Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.535617	ug/L	105.484		28	Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.324751	ug/L	104.731		28	Cu	65	29.265666	ug/L	104.52		28
Fe	54	49.158941	ug/L	110.718		44.4	Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	48.011563	ug/L	108.134		44.4	Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		96.994		Ge	72		ug/L		90.92	
Hg	200	1.073622	ug/L	107.362		1	Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.06403	ug/L	106.403		1	Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		98.773		Ho	165		ug/L		95.67	
In	115		ug/L		97.432		In	115		ug/L		91.805	
Mn	55	156.696069	ug/L	105.876		148	Mn	55	152.821227	ug/L	103.258		148
Ni	60	37.877474	ug/L	104.924		36.1	Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.770046	ug/L	104.626		36.1	Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.241661	ug/L	102.366		137	Pb	208	140.83278	ug/L	102.798		137
Sb	121	77.130222	ug/L	120.894		63.8	Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	78.14608	ug/L	122.486		63.8	Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		97.791		Sc	45		ug/L		89.874	
Se	82	170.349456	ug/L	105.154		162	Se	82	163.258818	ug/L	100.777		162
Tl	205	29.143939	ug/L	104.834		27.8	Tl	205	28.779001	ug/L	103.522		27.8
V	51	146.163334	ug/L	102.932		142	V	51	145.251347	ug/L	102.29		142
Zn	64	136.871927	ug/L	108.629		126	Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922	1	
Hg	202	1.082203	ug/L	108.22	1	
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119	1000	
Mg	24	99.317125	ug/L	98.921	100	
Mg	25	97.694613	ug/L	97.305	100	
Mn	55	97.083947	ug/L	96.505	100	
Na	23	97.926622	ug/L	96.479	100	
Ni	60	99.931756	ug/L	99.534	100	
Ni	62	101.122532	ug/L	100.72	100	
Pb	208	104.220792	ug/L	103.394	100	
Sb	121	103.564096	ug/L	103.151	100	
Sb	123	105.370593	ug/L	104.951	100	
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647	100	
Tl	205	102.083183	ug/L	102.39	100	
V	51	99.948537	ug/L	98.959	100	
Zn	64	111.868594	ug/L	111.423	100	

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489	1	
Hg	202	1.036762	ug/L	103.676	1	
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214	1000	
Mg	24	97.583939	ug/L	97.195	100	
Mg	25	96.371483	ug/L	95.988	100	
Mn	55	96.222644	ug/L	95.649	100	
Na	23	94.867561	ug/L	93.466	100	
Ni	60	99.787099	ug/L	99.39	100	
Ni	62	100.716791	ug/L	100.316	100	
Pb	208	101.118943	ug/L	100.316	100	
Sb	121	101.603508	ug/L	101.199	100	
Sb	123	101.96027	ug/L	101.554	100	
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683	100	
Tl	205	99.868488	ug/L	100.169	100	
V	51	99.064993	ug/L	98.084	100	
Zn	64	110.300389	ug/L	109.861	100	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339	10000	
Mg	24	9107.17615	ug/L	91.072	10000	
Mg	25	9113.08412	ug/L	91.131	10000	
Na	23	9142.69945	ug/L	91.427	10000	
P	31	9237.4397	ug/L	92.374	10000	
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23	10000	
Mg	24	9115.36461	ug/L	91.154	10000	
Mg	25	9076.8622	ug/L	90.769	10000	
Na	23	9186.42576	ug/L	91.864	10000	
P	31	9240.66309	ug/L	92.407	10000	
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 19:04:23	Sample Date/Time:	Wednesday, August 21, 2013 20:35:46
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1	Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.243043	ug/L	103.675		31.1	Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.877405	ug/L	104.863		162	Al	27	169.56866	ug/L	104.672		162
As	75	43.649422	ug/L	107.776		40.5	As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.539059	ug/L	100.909		26.3	Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.537574	ug/L	109.827		53.3	Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.686438	ug/L	98.935		48.2	Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	48.50097	ug/L	100.624		48.2	Cd	114	47.957987	ug/L	99.498		48.2
Co	59	24.967966	ug/L	101.496		24.6	Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.295588	ug/L	98.223		11.5	Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	28.509718	ug/L	101.82		28	Cu	63	29.183414	ug/L	104.226		28
Cu	65	28.505075	ug/L	101.804		28	Cu	65	29.283253	ug/L	104.583		28
Fe	54	36.488238	ug/L	82.181		44.4	Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	37.63998	ug/L	84.775		44.4	Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		83.794		Ge	72		ug/L		82.957	
Hg	200	1.079841	ug/L	107.984		1	Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.075676	ug/L	107.568		1	Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		94.617		Ho	165		ug/L		96.96	
In	115		ug/L		89.825		In	115		ug/L		90.311	
Mn	55	146.325811	ug/L	98.869		148	Mn	55	149.386866	ug/L	100.937		148
Ni	60	35.354291	ug/L	97.934		36.1	Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	35.812885	ug/L	99.205		36.1	Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	142.748232	ug/L	104.196		137	Pb	208	139.712907	ug/L	101.98		137
Sb	121	78.438027	ug/L	122.944		63.8	Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	79.381895	ug/L	124.423		63.8	Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		85.798		Sc	45		ug/L		83.441	
Se	82	168.196615	ug/L	103.825		162	Se	82	170.175299	ug/L	105.046		162
Tl	205	29.939774	ug/L	107.697		27.8	Tl	205	28.521962	ug/L	102.597		27.8
V	51	138.465296	ug/L	97.511		142	V	51	142.922273	ug/L	100.649		142
Zn	64	132.284935	ug/L	104.988		126	Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID:	QC Std 5	Sample ID:	QC Std 5
ıple Date/Time:	Thursday, August 22, 2013 01:10:06	Sample Date/Time:	Thursday, August 22, 2013 02:41:37
ıple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ıcentration Results				QC Std	Int Std	True
ılyte	Mass	Conc.	Units	% R	% R	Value
	107	32.085084	ug/L	103.167		31.1
	109	32.283397	ug/L	103.805		31.1
	27	176.628105	ug/L	109.03		162
	75	43.800976	ug/L	108.151		40.5
	137	26.837539	ug/L	102.044		26.3
	9	61.614851	ug/L	115.6		53.3
	111	47.430034	ug/L	98.403		48.2
	114	48.746097	ug/L	101.133		48.2
	59	26.280712	ug/L	106.832		24.6
	52	12.015753	ug/L	104.485		11.5
J	63	29.462402	ug/L	105.223		28
J	65	29.259493	ug/L	104.498		28
;	54	44.033776	ug/L	99.175		44.4
;	57	43.567683	ug/L	98.125		44.4
e	72		ug/L		82.707	
g	200	1.057705	ug/L	105.77	1	
g	202	1.069887	ug/L	106.989	1	
o	165		ug/L		96.744	
ı	115		ug/L		90.217	
ſn	55	156.302321	ug/L	105.61	148	
ıli	60	37.297646	ug/L	103.318	36.1	
ıli	62	37.56515	ug/L	104.059	36.1	
?b	208	141.740015	ug/L	103.46	137	
Sb	121	78.450993	ug/L	122.964	63.8	
Sb	123	78.806471	ug/L	123.521	63.8	
Sc	45		ug/L		79.964	
Se	82	169.290777	ug/L	104.5	162	
Tl	205	28.847121	ug/L	103.767	27.8	
V	51	147.903791	ug/L	104.158	142	
Zn	64	138.748402	ug/L	110.118	126	

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.40122	ug/L	104.184		31.1
Ag	109	32.681402	ug/L	105.085		31.1
Al	27	175.971114	ug/L	108.624		162
As	75	43.433784	ug/L	107.244		40.5
Ba	137	26.985416	ug/L	102.606		26.3
Be	9	61.712462	ug/L	115.783		53.3
Cd	111	47.380861	ug/L	98.301		48.2
Cd	114	48.585557	ug/L	100.8		48.2
Co	59	26.170913	ug/L	106.386		24.6
Cr	52	11.920527	ug/L	103.657		11.5
Cu	63	28.915989	ug/L	103.271		28
Cu	65	29.162714	ug/L	104.153		28
Fe	54	44.487941	ug/L	100.198		44.4
Fe	57	42.710078	ug/L	96.194		44.4
Ge	72		ug/L		81.216	
Hg	200	1.026397	ug/L	102.64	1	
Hg	202	1.042264	ug/L	104.226	1	
Ho	165		ug/L		96.797	
In	115		ug/L		88.977	
Mn	55	155.899113	ug/L	105.337	148	
Ni	60	36.847545	ug/L	102.071	36.1	
Ni	62	36.750603	ug/L	101.802	36.1	
Pb	208	140.681713	ug/L	102.687	137	
Sb	121	78.164808	ug/L	122.515	63.8	
Sb	123	79.249706	ug/L	124.216	63.8	
Sc	45		ug/L		81.057	
Se	82	169.545511	ug/L	104.658	162	
Tl	205	28.82577	ug/L	103.69	27.8	
V	51	146.069039	ug/L	102.866	142	
Zn	64	136.170963	ug/L	108.072	126	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905		1
Hg	202	1.034894	ug/L	103.489		1
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

mple ID: QC Std 5
mple Date/Time: Thursday, August 22, 2013 04:13:10
mple Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 05:44:51
Sample Description: CV - Trace Metals 2

ncentration Results				QC Std	Int Std	True
alyte	Mass	Conc.	Units	% R	% R	Value
	107	31.910435	ug/L	102.606		31.1
	109	32.451735	ug/L	104.346		31.1
	27	176.978661	ug/L	109.246		162
	75	43.693437	ug/L	107.885		40.5
	137	26.960732	ug/L	102.512		26.3
	9	63.399941	ug/L	118.949		53.3
	111	48.186725	ug/L	99.972		48.2
	114	48.776891	ug/L	101.197		48.2
	59	26.421149	ug/L	107.403		24.6
	52	11.97374	ug/L	104.119		11.5
	63	29.055703	ug/L	103.77		28
	65	29.197034	ug/L	104.275		28
	54	43.74309	ug/L	98.52		44.4
	57	41.962856	ug/L	94.511		44.4
	72		ug/L		80.709	
	200	1.069262	ug/L	106.926		1
	202	1.056357	ug/L	105.636		1
	165		ug/L		95.83	
	115		ug/L		88.442	
In	55	156.943489	ug/L	106.043		148
Ii	60	37.048042	ug/L	102.626		36.1
Ii	62	36.398976	ug/L	100.828		36.1
'b	208	141.718411	ug/L	103.444		137
;b	121	78.316181	ug/L	122.753		63.8
;b	123	78.931664	ug/L	123.717		63.8
;c	45		ug/L		80.835	
;e	82	171.023934	ug/L	105.57		162
'l	205	28.771042	ug/L	103.493		27.8
/	51	146.166037	ug/L	102.934		142
'n	64	138.002467	ug/L	109.526		126

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.002583	ug/L	-0.008		31.1
Ag	109	-0.001163	ug/L	-0.004		31.1
Al	27	-0.512186	ug/L	-0.316		162
As	75	1.099476	ug/L	2.715		40.5
Ba	137	-0.009982	ug/L	-0.038		26.3
Be	9	-0.016701	ug/L	-0.031		53.3
Cd	111	-0.043471	ug/L	-0.09		48.2
Cd	114	-0.050387	ug/L	-0.105		48.2
Co	59	0.008112	ug/L	0.033		24.6
Cr	52	-0.495766	ug/L	-4.311		11.5
Cu	63	-0.000159	ug/L	-0.001		28
Cu	65	-0.005692	ug/L	-0.02		28
Fe	54	291.990802	ug/L	657.637		44.4
Fe	57	-21.372424	ug/L	-48.136		44.4
Ge	72		ug/L		132.416	
Hg	200	-0.003091	ug/L	-0.309		1
Hg	202	-0.003251	ug/L	-0.325		1
Ho	165		ug/L		126.741	
In	115		ug/L		145.25	
Mn	55	0.053751	ug/L	0.036		148
Ni	60	-0.011788	ug/L	-0.033		36.1
Ni	62	-0.058488	ug/L	-0.162		36.1
Pb	208	-0.007995	ug/L	-0.006		137
Sb	121	-0.004589	ug/L	-0.007		63.8
Sb	123	-0.002685	ug/L	-0.004		63.8
Sc	45		ug/L		143.741	
Se	82	-0.047835	ug/L	-0.03		162
Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	-2.27818	ug/L	-1.604		142
Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282		1
Hg	202	-0.003181	ug/L	-0.318		1
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406		1000
Mg	24	-0.174617	ug/L	-0.174		100
Mg	25	-0.247938	ug/L	-0.247		100
Mn	55	0.05222	ug/L	0.052		100
Na	23	0.032718	ug/L	0.032		100
Ni	60	-0.011779	ug/L	-0.012		100
Ni	62	-0.061766	ug/L	-0.062		100
Pb	208	-0.011789	ug/L	-0.012		100
Sb	121	-0.014839	ug/L	-0.015		100
Sb	123	-0.014279	ug/L	-0.014		100
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152		100
Tl	205	-0.096793	ug/L	-0.097		100
V	51	-2.312245	ug/L	-2.289		100
Zn	64	-1.422791	ug/L	-1.417		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295		1
Hg	202	-0.002419	ug/L	-0.242		1
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002		1000
Mg	24	-0.166032	ug/L	-0.165		100
Mg	25	-0.22414	ug/L	-0.223		100
Mn	55	0.061606	ug/L	0.061		100
Na	23	-0.358021	ug/L	-0.353		100
Ni	60	-0.011193	ug/L	-0.011		100
Ni	62	-0.060722	ug/L	-0.06		100
Pb	208	-0.011966	ug/L	-0.012		100
Sb	121	-0.018787	ug/L	-0.019		100
Sb	123	-0.01744	ug/L	-0.017		100
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294		100
Tl	205	-0.09285	ug/L	-0.093		100
V	51	-2.221141	ug/L	-2.199		100
Zn	64	-1.411079	ug/L	-1.405		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344		10000
Mg	24	-0.161123	ug/L	-0.002		10000
Mg	25	-0.20827	ug/L	-0.002		10000
Na	23	-0.132712	ug/L	-0.001		10000
P	31	22.784733	ug/L	0.228		10000
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338		10000
Mg	24	-0.17897	ug/L	-0.002		10000
Mg	25	-0.22029	ug/L	-0.002		10000
Na	23	-0.508698	ug/L	-0.005		10000
P	31	22.801151	ug/L	0.228		10000
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 07:16:32
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 08:48:17
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143		1
Hg	202	1.052693	ug/L	105.269		1
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067		1000
Mg	24	105.163942	ug/L	104.745		100
Mg	25	104.562376	ug/L	104.146		100
Mn	55	103.439706	ug/L	102.823		100
Na	23	107.064006	ug/L	105.482		100
Ni	60	103.416914	ug/L	103.005		100
Ni	62	104.626279	ug/L	104.209		100
Pb	208	102.222971	ug/L	101.412		100
Sb	121	105.67022	ug/L	105.249		100
Sb	123	106.381046	ug/L	105.957		100
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517		100
Tl	205	102.761032	ug/L	103.07		100
V	51	102.90077	ug/L	101.882		100
Zn	64	114.087363	ug/L	113.633		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757		1
Hg	202	1.034154	ug/L	103.415		1
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132		1000
Mg	24	104.129898	ug/L	103.715		100
Mg	25	103.655906	ug/L	103.243		100
Mn	55	104.253269	ug/L	103.631		100
Na	23	106.903493	ug/L	105.324		100
Ni	60	105.713366	ug/L	105.292		100
Ni	62	104.35735	ug/L	103.942		100
Pb	208	103.094453	ug/L	102.276		100
Sb	121	103.629563	ug/L	103.217		100
Sb	123	103.888418	ug/L	103.475		100
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303		100
Tl	205	102.099164	ug/L	102.406		100
V	51	103.657425	ug/L	102.631		100
Zn	64	114.231025	ug/L	113.776		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591		10000
Mg	24	9453.82297	ug/L	94.538		10000
Mg	25	9445.54684	ug/L	94.455		10000
Na	23	9519.12975	ug/L	95.191		10000
P	31	9507.21505	ug/L	95.072		10000
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333		10000
Mg	24	9627.10708	ug/L	96.271		10000
Mg	25	9643.50715	ug/L	96.435		10000
Na	23	9640.23924	ug/L	96.402		10000
P	31	9707.49771	ug/L	97.075		10000
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1
Ag	109	33.688755	ug/L	108.324		31.1
Al	27	179.043586	ug/L	110.521		162
As	75	45.162096	ug/L	111.511		40.5
Ba	137	27.731851	ug/L	105.444		26.3
Be	9	64.398794	ug/L	120.823		53.3
Cd	111	49.461889	ug/L	102.618		48.2
Cd	114	49.490706	ug/L	102.678		48.2
Co	59	27.129774	ug/L	110.284		24.6
Cr	52	12.414864	ug/L	107.955		11.5
Cu	63	29.906814	ug/L	106.81		28
Cu	65	29.383655	ug/L	104.942		28
Fe	54	47.801167	ug/L	107.66		44.4
Fe	57	47.125058	ug/L	106.138		44.4
Ge	72		ug/L		77.442	
Hg	200	1.059861	ug/L	105.986		1
Hg	202	1.062051	ug/L	106.205		1
Ho	165		ug/L		91.204	
In	115		ug/L		85.046	
Mn	55	162.656169	ug/L	109.903		148
Ni	60	38.003502	ug/L	105.273		36.1
Ni	62	37.531851	ug/L	103.966		36.1
Pb	208	144.276791	ug/L	105.312		137
Sb	121	80.552718	ug/L	126.258		63.8
Sb	123	81.755156	ug/L	128.143		63.8
Sc	45		ug/L		76.245	
Se	82	176.391985	ug/L	108.884		162
Tl	205	29.572709	ug/L	106.377		27.8
V	51	149.952502	ug/L	105.6		142
Zn	64	141.444438	ug/L	112.257		126

Silver spike only reported.

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.078838	ug/L	106.363		31.1
Al	27	174.750964	ug/L	107.871		162
As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.205882	ug/L	103.444		26.3
Be	9	62.863805	ug/L	117.943		53.3
Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	48.546222	ug/L	100.718		48.2
Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.413619	ug/L	105.049		28
Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.354	
Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		92.327	
In	115		ug/L		86.826	
Mn	55	158.688787	ug/L	107.222		148
Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.011138	ug/L	105.118		137
Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.361	
Se	82	174.683949	ug/L	107.83		162
Tl	205	29.024052	ug/L	104.403		27.8
V	51	148.64255	ug/L	104.678		142
Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73946.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72776.5, 43816.1			
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72776.5, 43816.1			25 mL
123529.1 MSD			73087.1, 72776.5, 43816.1			25 mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

Page: 8

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			25 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			73966.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.02	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	739616.6, 73992.1, 74240.1	83.5	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
1231622.01						
1231629.01						
02						
1231641.01						
02						
1231642.04						
05						1:10 dilution
1231647.01						1:10 dilution
02						
03						
1231648.01						
1231649.01						
649.01 MS			73087.1, 72276.5, 43816.1			
649.01 MSD			73087.1, 72276.5, 43816.1			
1231649.02						
1231649.03						
1231649.04						
649.04 MS			73087.1, 72276.5, 43816.1			
649.04 MSD			73087.1, 72276.5, 43816.1			
1231650.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73966.16, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

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BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72276.5, 43816.1			25 mL
711.02 MSD			73087.1, 72276.5, 43816.1			25 mL
123741.01	↓	↓	↓	↓	↓	

Sample ID: 123650.01
Sample Date/Time: Thursday, August 22, 2013 00:37:28
Autosampler Position: 79
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123650.01.77691

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23205.582	ug/L	
Be	9	0.035323	29.667	ug/L	0.006
B	10	139.475659	15816.913	ug/L	3.166
B	11	141.961483	81986.890	ug/L	0.446
C	12		757942.499	ug/L	
Na	23	18465.592394	113882645.629	ug/L	18.246
Mg	24	11006.620802	46924769.610	ug/L	40.024
Mg	25	11055.458811	6692080.269	ug/L	112.057
Al	27	189.575196	1264968.352	ug/L	1.516
Si	28		15031520.902	ug/L	
P	31	33.510350	23937.252	ug/L	2.993
S	32		79030160.692	ug/L	
Cl	35		9503775.638	ug/L	
K	39	7405.404090	74424315.265	ug/L	52.465
Ca	44	39857.696152	12961261.674	ug/L	174.781
Sc	45		189136.671	ug/L	
Ti	47	10.666708	9162.039	ug/L	0.158
Ti	48	65.916396	604835.408	ug/L	2.474
V	51	0.744919	45268.884	ug/L	0.013
ClO	51		46124.845	ug/L	
Cr	52	0.567276	15328.601	ug/L	0.000
Cr	53	-1.925333	9587.484	ug/L	0.120
Fe	54	22567.708642	18265565.042	ug/L	176.000
Mn	55	1251.515677	20716208.509	ug/L	1.366
Fe	56	22952.747822	311245069.262	ug/L	73.296
Fe	57	22984.292797	7425210.103	ug/L	93.681
Co	59	8.543552	103424.029	ug/L	0.017
Ni	60	8.781118	21736.842	ug/L	0.034
Ni	62	8.043264	3002.859	ug/L	0.115
Cu	63	1.833370	10252.550	ug/L	0.039
Zn	64	7.341688	21219.520	ug/L	0.048
Cu	65	1.661109	4660.241	ug/L	0.015
Zn	66	7.399817	12765.417	ug/L	0.028
Zn	68	8.887092	11286.449	ug/L	0.076
Ge	72		162469.505	ug/L	
As	75	45.727280	74650.128	ug/L	0.872
Se	82	1.728014	317.916	ug/L	0.033
ArCl	77		757.039	ug/L	
Br	79		117647.610	ug/L	

Br	81		140521.126	ug/L	
Y	89		443238.299	ug/L	
Mo	95	0.886141	3464.695	ug/L	0.013
Rh	103		388244.676	ug/L	
Ag	107	0.349635	4760.962	ug/L	0.027
Ag	109	0.349199	4545.191	ug/L	0.056
Cd	111	-0.039375	206.338	ug/L	0.001
Cd	114	-0.036439	513.020	ug/L	0.002
In	115		554083.737	ug/L	
Sb	121	0.718059	6384.305	ug/L	0.018
Sb	123	0.707438	4839.568	ug/L	0.021
Ba	137	61.295188	329428.288	ug/L	0.962
Ba	138	60.264460	2103816.900	ug/L	1.529
Tb	159		768383.015	ug/L	
Ho	165		757110.098	ug/L	
Hg	200	0.006936	40.000	ug/L	0.005
Hg	202	0.004123	42.667	ug/L	0.003
Tl	205	0.000462	5222.220	ug/L	0.009
Pb	208	1.208804	70888.102	ug/L	0.023
Bi	209		716303.171	ug/L	
Se	77	-0.516554	733.704	ug/L	0.066
Se	78	-6.211131	8624.547	ug/L	0.191

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		91.819
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	82.319
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	84.592
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.713
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123650.02
Sample Date/Time: Thursday, August 22, 2013 00:44:00
Autosampler Position: 80
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123650.02.77692

Ag, Na, Sc, Tl, V & Zn not logged on, out of bottles after dilutions were performed

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22961.058	ug/L	
Be	9	0.012337	19.000	ug/L	0.004
B	10	175.987806	20046.615	ug/L	1.425
B	11	181.685446	105401.606	ug/L	1.927
C	12		879011.937	ug/L	
Na	23	31887.072428	197680557.206	ug/L	452.824
Mg	24	11069.152086	47438390.389	ug/L	152.257
Mg	25	11024.932966	6708729.390	ug/L	96.337
Al	27	134.733073	904910.586	ug/L	1.884
Si	28		18017496.682	ug/L	
P	31	224.739179	99353.213	ug/L	3.059
S	32		79289143.297	ug/L	
Cl	35		9882492.203	ug/L	
K	39	8538.927615	86180549.704	ug/L	50.575
Ca	44	42085.068989	13754881.664	ug/L	997.526
Sc	45		190162.215	ug/L	
Ti	47	9.382402	8125.044	ug/L	0.187
Ti	48	68.439791	631597.080	ug/L	0.566
V	51	-0.024598	35661.503	ug/L	0.037
ClO	51		35794.691	ug/L	
Cr	52	0.385912	13447.357	ug/L	0.035
Cr	53	-1.944607	9615.182	ug/L	0.109
Fe	54	24669.185919	20063192.179	ug/L	507.081
Mn	55	1744.470990	29026579.508	ug/L	27.933
Fe	56	25043.377090	341076614.556	ug/L	550.509
Fe	57	25049.952402	8133598.167	ug/L	527.273
Co	59	0.921239	13238.765	ug/L	0.030
Ni	60	3.591628	8971.181	ug/L	0.059
Ni	62	2.448550	959.060	ug/L	0.020
Cu	63	0.747702	4344.081	ug/L	0.004
Zn	64	1.794524	7927.688	ug/L	0.005
Cu	65	0.447045	1349.114	ug/L	0.009
Zn	66	1.611965	4466.141	ug/L	0.049
Zn	68	2.893241	4849.675	ug/L	0.125
Ge	72		165523.559	ug/L	
As	75	15.380246	25494.103	ug/L	0.285
Se	82	1.811787	339.050	ug/L	0.062
ArCl	77		783.042	ug/L	
Br	79		129837.615	ug/L	

Br	81		153990.913	ug/L	
Y	89		416422.422	ug/L	
Mo	95	0.273153	1150.418	ug/L	0.005
Rh	103		389120.955	ug/L	
Ag	107	0.215024	3118.567	ug/L	0.019
Ag	109	0.222142	3060.214	ug/L	0.025
Cd	111	-0.070335	110.335	ug/L	0.002
Cd	114	-0.065459	305.675	ug/L	0.000
In	115		564558.164	ug/L	
Sb	121	0.405239	3788.161	ug/L	0.019
Sb	123	0.412130	2956.287	ug/L	0.009
Ba	137	45.421578	248743.260	ug/L	1.082
Ba	138	44.868458	1596294.985	ug/L	0.756
Tb	159		773754.455	ug/L	
Ho	165		762438.016	ug/L	
Hg	200	0.003453	30.000	ug/L	0.002
Hg	202	0.004868	46.001	ug/L	0.003
Tl	205	-0.071038	2280.644	ug/L	0.007
Pb	208	0.806948	48021.495	ug/L	0.000
Bi	209		692207.189	ug/L	
Se	77	-0.185430	783.708	ug/L	0.053
Se	78	-6.192843	8633.407	ug/L	0.408

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		92.317
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.866
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	86.191
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	92.358
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123650.03
Sample Date/Time: Thursday, August 22, 2013 00:50:32
Autosampler Position: 81
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123650.03.77693

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23243.013	ug/L	
Be	9	-0.008273	10.333	ug/L	0.006
B	10	215.588310	27038.086	ug/L	3.350
B	11	219.739489	140384.197	ug/L	0.762
C	12		760267.047	ug/L	
Na	23	31869.359190	217688035.531	ug/L	84.650
Mg	24	9122.676468	43076131.719	ug/L	48.066
Mg	25	8996.322193	6030635.554	ug/L	120.672
Al	27	25.119824	189326.596	ug/L	0.769
Si	28		31146981.141	ug/L	
P	31	295.973127	140335.473	ug/L	8.087
S	32		83411283.101	ug/L	
Cl	35		9928469.601	ug/L	
K	39	13955.886384	154749901.337	ug/L	115.568
Ca	44	24689.606907	8896424.824	ug/L	242.555
Sc	45		209494.922	ug/L	
Ti	47	2.998969	3009.195	ug/L	0.064
Ti	48	34.914553	354508.724	ug/L	1.372
V	51	-0.483781	32814.111	ug/L	0.034
ClO	51		33090.779	ug/L	
Cr	52	-0.049892	9629.023	ug/L	0.020
Cr	53	-2.727688	9460.015	ug/L	0.030
Fe	54	15994.871170	14355735.795	ug/L	250.764
Mn	55	806.208985	14781247.565	ug/L	4.323
Fe	56	16076.618154	242409072.500	ug/L	49.437
Fe	57	16192.033299	5796952.997	ug/L	93.490
Co	59	10.344822	138160.685	ug/L	0.143
Ni	60	17.573894	48113.805	ug/L	0.215
Ni	62	16.815999	6885.676	ug/L	0.033
Cu	63	0.418517	2795.125	ug/L	0.012
Zn	64	0.346266	4876.067	ug/L	0.047
Cu	65	0.157962	611.360	ug/L	0.003
Zn	66	-0.066439	2247.967	ug/L	0.005
Zn	68	0.801920	2847.141	ug/L	0.036
Ge	72		165196.019	ug/L	
As	75	193.931579	322414.094	ug/L	2.136
Se	82	1.658898	311.405	ug/L	0.099
ArCl	77		784.375	ug/L	
Br	79		111101.928	ug/L	

Br	81		133879.453	ug/L	
Y	89		416899.859	ug/L	
Mo	95	26.164937	101506.073	ug/L	0.075
Rh	103		394224.407	ug/L	
Ag	107	0.163247	2462.358	ug/L	0.014
Ag	109	0.167070	2390.672	ug/L	0.002
Cd	111	0.004148	352.344	ug/L	0.000
Cd	114	-0.007545	742.038	ug/L	0.004
In	115		567172.194	ug/L	
Sb	121	0.274379	2662.417	ug/L	0.021
Sb	123	0.274287	2044.409	ug/L	0.004
Ba	137	28.374407	156091.527	ug/L	0.944
Ba	138	28.199081	1007989.306	ug/L	0.402
Tb	159		784063.750	ug/L	
Ho	165		771026.619	ug/L	
Hg	200	0.008817	46.667	ug/L	0.001
Hg	202	0.005974	51.001	ug/L	0.000
Tl	205	-0.072173	2256.970	ug/L	0.006
Pb	208	0.042101	3557.308	ug/L	0.001
Bi	209		698182.869	ug/L	
Se	77	-0.426047	747.372	ug/L	0.012
Se	78	-5.922672	8764.293	ug/L	0.655

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.702
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.700
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	86.590
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	93.398
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123650.04
Sample Date/Time: Thursday, August 22, 2013 01:23:09
Autosampler Position: 82
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123650.04.77698

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25430.204	ug/L	
Be	9	-0.014555	7.000	ug/L	0.003
B	10	198.228441	24787.340	ug/L	1.372
B	11	208.522092	132805.484	ug/L	0.507
C	12		858745.840	ug/L	
Na	23	S	S	ug/L	S
Mg	24	24000.008271	112914485.850	ug/L	636.081
Mg	25	23920.708328	15978975.008	ug/L	582.633
Al	27	8.637894	67664.324	ug/L	0.470
Si	28		33160460.777	ug/L	
P	31	218.813713	106541.478	ug/L	1.951
S	32		79111092.756	ug/L	
Cl	35		11710690.742	ug/L	
K	39	9950.664480	110144513.553	ug/L	200.772
Ca	44	37721.321090	13539571.298	ug/L	651.027
Sc	45		208821.823	ug/L	
Ti	47	3.334770	3306.969	ug/L	0.306
Ti	48	51.237980	518787.186	ug/L	1.564
V	51	-0.368011	34338.099	ug/L	0.012
ClO	51		34423.461	ug/L	
Cr	52	0.036030	10619.990	ug/L	0.001
Cr	53	-2.062848	10388.709	ug/L	0.084
Fe	54	10192.990615	9141285.426	ug/L	239.443
Mn	55	1162.129749	21233266.290	ug/L	18.173
Fe	56	10093.767717	152858902.642	ug/L	135.052
Fe	57	10227.712689	3653485.555	ug/L	105.249
Co	59	2.185176	31055.603	ug/L	0.047
Ni	60	8.573517	23424.711	ug/L	0.174
Ni	62	7.618766	3145.577	ug/L	0.234
Cu	63	1.343611	8363.931	ug/L	0.007
Zn	64	2.099089	9512.118	ug/L	0.035
Cu	65	0.190909	708.368	ug/L	0.010
Zn	66	1.844836	5272.915	ug/L	0.078
Zn	68	4.309287	7012.108	ug/L	0.024
Ge	72		155499.919	ug/L	
As	75	19.662975	30648.050	ug/L	0.463
Se	82	5.797253	981.047	ug/L	0.124
ArCl	77		949.392	ug/L	
Br	79		394950.080	ug/L	

Br	81		428686.402	ug/L	
Y	89		403814.888	ug/L	
Mo	95	12.316696	45010.656	ug/L	0.163
Rh	103		371931.680	ug/L	
Ag	107	0.122026	1815.200	ug/L	0.010
Ag	109	0.123738	1739.517	ug/L	0.004
Cd	111	-0.045550	179.670	ug/L	0.002
Cd	114	-0.045548	429.348	ug/L	0.000
In	115		533070.835	ug/L	
Sb	121	0.502786	4378.431	ug/L	0.003
Sb	123	0.516514	3451.503	ug/L	0.005
Ba	137	115.453190	597002.792	ug/L	0.200
Ba	138	112.629095	3783493.279	ug/L	0.110
Tb	159		756501.923	ug/L	
Ho	165		749408.503	ug/L	
Hg	200	0.018327	73.334	ug/L	0.000
Hg	202	0.015100	85.001	ug/L	0.004
Tl	205	-0.079168	1907.887	ug/L	0.006
Pb	208	0.092493	6338.935	ug/L	0.000
Bi	209		656424.073	ug/L	
Se	77	0.916121	950.059	ug/L	0.418
Se	78	-6.158223	8650.179	ug/L	0.177

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		101.375
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe
	Co
	Ni
	Ni
	Cu
	Zn
	Cu
	Zn
	Zn
>	Ge 78.788
	As
	Se
	ArCl
	Br
	Br
	Y
	Mo
	Rh
	Ag
	Ag
	Cd
	Cd
>	In 81.384
	Sb
	Sb
	Ba
	Ba
	Tb
>	Ho 90.780
	Hg
	Hg
	Tl
	Pb
	Bi
	Se
	Se

Sample ID: 123650.04
Sample Date/Time: Thursday, August 22, 2013 10:12:53
Autosampler Position: 82
Sample Description: 1:10 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123650.04.77774

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26336.763	ug/L	
Be	9	-0.020022	3.667	ug/L	0.001
B	10	25.456503	2820.466	ug/L	0.550
B	11	27.112583	15282.657	ug/L	0.697
C	12		441139.491	ug/L	
Na	23	15426.237051	91502886.502	ug/L	346.677
Mg	24	3128.434339	12828463.163	ug/L	31.444
Mg	25	3120.271258	1816622.503	ug/L	46.976
Al	27	0.724180	8361.346	ug/L	0.029
Si	28		3555009.648	ug/L	
P	31	24.981624	19803.532	ug/L	1.555
S	32		76728992.333	ug/L	
Cl	35		9601027.169	ug/L	
K	39	1261.096959	12665058.000	ug/L	19.842
Ca	44	4754.709151	1496364.718	ug/L	27.326
Sc	45		181915.443	ug/L	
Ti	47	0.348347	470.684	ug/L	0.036
Ti	48	5.869300	51377.387	ug/L	0.008
V	51	-0.704172	25798.835	ug/L	0.081
ClO	51		25875.702	ug/L	
Cr	52	-0.089081	7958.496	ug/L	0.003
Cr	53	-2.467738	8540.762	ug/L	0.040
Fe	54	1321.613865	1083765.376	ug/L	30.673
Mn	55	146.495051	2333347.549	ug/L	3.512
Fe	56	1256.958656	19003593.921	ug/L	11.954
Fe	57	1272.417911	404328.801	ug/L	7.831
Co	59	0.152559	3914.548	ug/L	0.005
Ni	60	1.119258	2713.099	ug/L	0.005
Ni	62	0.914819	377.012	ug/L	0.054
Cu	63	0.192200	1237.430	ug/L	0.005
Zn	64	-0.411051	2484.251	ug/L	0.041
Cu	65	0.042204	226.672	ug/L	0.006
Zn	66	-0.374495	1525.810	ug/L	0.033
Zn	68	-0.124489	1512.141	ug/L	0.066
Ge	72		173756.813	ug/L	
As	75	1.840237	3080.581	ug/L	0.020
Se	82	0.472021	106.605	ug/L	0.029
ArCl	77		685.033	ug/L	
Br	79		44177.239	ug/L	

Br	81		64975.838	ug/L	
Y	89		450135.165	ug/L	
Mo	95	1.190240	4946.395	ug/L	0.012
Rh	103		434460.635	ug/L	
Ag	107	0.026836	755.706	ug/L	0.000
Ag	109	0.030701	746.705	ug/L	0.001
Cd	111	-0.078507	91.001	ug/L	0.001
Cd	114	-0.081624	200.338	ug/L	0.004
In	115		612514.218	ug/L	
Sb	121	0.112176	1349.780	ug/L	0.002
Sb	123	0.111566	1026.062	ug/L	0.007
Ba	137	11.337757	67444.630	ug/L	0.233
Ba	138	11.240479	434295.785	ug/L	0.153
Tb	159		838102.995	ug/L	
Ho	165		823382.983	ug/L	
Hg	200	0.001872	27.334	ug/L	0.001
Hg	202	0.001419	35.000	ug/L	0.001
Tl	205	-0.075513	2263.640	ug/L	0.006
Pb	208	0.014620	2071.115	ug/L	0.001
Bi	209		747201.951	ug/L	
Se	77	-0.911692	674.032	ug/L	0.137
Se	78	-3.752003	9815.888	ug/L	0.028

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		88.313
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.038
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.512
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 99.741
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.
Professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123704
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/20/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — 9.5.13 — 160

Lorraine Olashaw, Lab Director | Date | # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123704.01	Trip Blank 8260	8/20/13	7/10/13	aqueous		Adheres to Sample Acceptance Policy
123704.02	GW-FPC-6A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123704.03	GW-FPC-6A-Dup-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123704.04	GW-AE-4A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123704.05	GW-AE-4B-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123704.06	Trip Blank 1,4 dioxane	8/20/13	8/6/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT



EAI ID#: **123704**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/20/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

Additional sample was received for location "GW-FPC-6A-0813" for quality control requirements.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

VOC 8260B

The calibration verification analyzed on 8/22/13 exceeded % deviation criteria of 20% for bromoform. Bromoform was not detected in any samples. The detection of bromoform in the low level standard analyzed with the samples supports the reporting limit.

1,4-DIOXANE 8260B SIM

All Quality Control criteria were met.

LABORATORY REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank 8260	GW-FPC-6A -0813	GW-FPC-6A-Dup-0813	GW-AE-4A -0813	GW-AE-4B -0813
Lab Sample ID:	123704.01	123704.02	123704.03	123704.04	123704.05
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/10/13	8/19/13	8/19/13	8/19/13	8/19/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
Analyst:	BAM	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	**12**	**12**	< 5	< 5
Acetone	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 5	< 5	< 5	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5	< 5	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethane	< 2	< 2	< 2	< 2	< 2
2,2-Dichloropropane	< 2	< 2	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2	< 2	< 2	< 2
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 2	< 2	< 2	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10
Chloroform	< 2	< 2	< 2	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2	< 2	< 2	< 2
Carbon tetrachloride	< 2	< 2	< 2	< 2	< 2
1,1-Dichloropropene	< 2	< 2	< 2	< 2	< 2
Benzene	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 2	< 2	< 2	< 2	< 2
Trichloroethene	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane	< 2	< 2	< 2	< 2	< 2
Dibromomethane	< 2	< 2	< 2	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2	< 2	< 2	< 2
Toluene	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2	< 2	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2	< 2	< 2	< 2
2-Hexanone	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	< 2	< 2	< 2	< 2	< 2
1,3-Dichloropropane	< 2	< 2	< 2	< 2	< 2
Dibromochloromethane	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2	< 2
Chlorobenzene	< 2	**3**	**3**	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1	< 1	< 1

LABORATORY REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank 8260	GW-FPC-6A -0813	GW-FPC-6A-Dup-0813	GW-AE-4A -0813	GW-AE-4B -0813
Lab Sample ID:	123704.01	123704.02	123704.03	123704.04	123704.05
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/10/13	8/19/13	8/19/13	8/19/13	8/19/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
Analyst:	BAM	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1	1
mp-Xylene	< 1	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1	< 1
Bromobenzene	< 2	< 2	< 2	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2	< 2	< 2	< 2
1,2,3-Trichloropropane	< 2	< 2	< 2	< 2	< 2
n-Propylbenzene	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 2	< 2	< 2	< 2	< 2
4-Chlorotoluene	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 5	< 5	< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	**98 %R**	**98 %R**	**97 %R**	**98 %R**	**98 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**	**102 %R**	**103 %R**	**102 %R**	**102 %R**
Toluene-d8 (surr)	**99 %R**	**99 %R**	**98 %R**	**99 %R**	**99 %R**

QC REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	20 (102 %R)	20 (100 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloromethane	< 2	19 (96 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	< 2	20 (99 %R)	19 (97 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromomethane	< 2	18 (89 %R)	19 (93 %R) (4 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloroethane	< 5	20 (98 %R)	19 (97 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	< 5	19 (95 %R)	19 (94 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	< 5	21 (107 %R)	21 (104 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Acetone	< 10	20 (110 %R)	20 (112 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	< 1	18 (89 %R)	18 (88 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	< 30	110 (110 %R)	110 (111 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methylene chloride	< 5	19 (96 %R)	19 (94 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	< 5	17 (85 %R)	17 (84 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	< 5	21 (105 %R)	21 (104 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	< 5	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	< 5	20 (100 %R)	20 (99 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	< 5	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	< 2	17 (86 %R)	17 (84 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	< 2	22 (110 %R)	22 (109 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	< 10	20 (113 %R)	20 (111 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	< 2	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	< 10	20 (116 %R)	20 (115 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chloroform	< 2	20 (99 %R)	19 (97 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	< 2	19 (96 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	< 2	19 (94 %R)	19 (95 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	< 2	19 (94 %R)	19 (93 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Benzene	< 1	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	< 2	20 (101 %R)	20 (99 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichloroethene	< 2	19 (94 %R)	19 (94 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	< 2	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromomethane	< 2	21 (106 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	< 0.5	19 (96 %R)	19 (94 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	< 50	< 50 (150 %R)	< 50 (150 %R) (0 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	< 10	20 (121 %R)	20 (119 %R) (2 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	< 2	22 (108 %R)	21 (106 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Toluene	< 1	21 (103 %R)	20 (101 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	< 2	20 (99 %R)	20 (99 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	< 2	21 (107 %R)	21 (105 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Hexanone	< 10	20 (121 %R)	20 (121 %R) (0 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	< 2	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	< 2	19 (93 %R)	18 (92 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	< 2	21 (106 %R)	21 (104 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	< 2	20 (101 %R)	20 (100 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	< 2	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B

QC REPORT

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Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
mp-Xylene	< 1	40 (99 %R)	39 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
o-Xylene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Styrene	< 1	21 (107 %R)	21 (106 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromoform	< 2	19 (94 %R)	19 (93 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	< 1	23 (113 %R)	22 (111 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromobenzene	< 2	20 (99 %R)	20 (98 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	< 2	22 (112 %R)	22 (112 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	< 2	22 (108 %R)	21 (106 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	< 1	21 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	< 2	20 (100 %R)	20 (98 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	< 2	20 (102 %R)	20 (100 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	< 1	21 (103 %R)	21 (103 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	< 1	21 (103 %R)	21 (103 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	< 1	21 (104 %R)	20 (102 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	< 1	21 (106 %R)	21 (105 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	< 1	20 (102 %R)	20 (101 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	< 1	21 (107 %R)	21 (107 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	< 1	21 (104 %R)	21 (103 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	< 1	21 (103 %R)	20 (102 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	< 1	21 (106 %R)	21 (106 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	< 2	20 (101 %R)	21 (103 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	< 1	21 (106 %R)	22 (108 %R) (2 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	< 1	21 (104 %R)	21 (104 %R) (0 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	< 0.5	18 (89 %R)	18 (90 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Naphthalene	< 5	23 (113 %R)	23 (114 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	< 1	21 (106 %R)	21 (107 %R) (1 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	98 %R	100 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4 (surr)	101 %R	101 %R	102 %R	8/22/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	100 %R	99 %R	99 %R	8/22/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

QC REPORT

EAI ID#: **123704**

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Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	123704.02	< 5	22 (111 %R)	21 (104 %R) (7 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloromethane	123704.02	< 2	23 (113 %R)	21 (106 %R) (6 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	123704.02	< 2	22 (111 %R)	21 (105 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromomethane	123704.02	< 2	22 (108 %R)	22 (107 %R) (1 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Chloroethane	123704.02	< 5	26 (108 %R)	25 (102 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	123704.02	< 5	21 (105 %R)	20 (99 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	123704.02	12	34 (109 %R)	32 (102 %R) (7 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Acetone	123704.02	< 10	20 (88 %R)	20 (77 %R) (13 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	123704.02	< 1	20 (101 %R)	19 (96 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	123704.02	< 30	100 (91 %R)	90 (85 %R) (7 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methylene chloride	123704.02	< 5	20 (101 %R)	20 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	123704.02	< 5	19 (95 %R)	18 (90 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	123704.02	< 5	20 (101 %R)	19 (96 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	123704.02	< 5	20 (101 %R)	19 (96 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	123704.02	< 5	21 (103 %R)	20 (98 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	123704.02	< 5	20 (102 %R)	19 (97 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	123704.02	< 2	21 (107 %R)	21 (103 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	123704.02	< 2	21 (105 %R)	20 (100 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	123704.02	< 2	21 (103 %R)	19 (97 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	123704.02	< 2	23 (115 %R)	22 (109 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	123704.02	< 10	20 (92 %R)	20 (87 %R) (6 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	123704.02	< 2	21 (104 %R)	20 (99 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	123704.02	< 10	20 (95 %R)	20 (91 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chloroform	123704.02	< 2	21 (103 %R)	20 (98 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	123704.02	< 2	21 (104 %R)	20 (99 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	123704.02	< 2	21 (104 %R)	20 (99 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	123704.02	< 2	21 (103 %R)	20 (98 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Benzene	123704.02	< 1	23 (111 %R)	22 (105 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	123704.02	< 2	20 (101 %R)	19 (96 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Trichloroethene	123704.02	< 2	20 (102 %R)	19 (96 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	123704.02	< 2	21 (107 %R)	20 (101 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromomethane	123704.02	< 2	21 (104 %R)	20 (98 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	123704.02	< 0.5	20 (99 %R)	19 (94 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	123704.02	18	< 50 (132 %R)	< 50 (117 %R) (12	8/22/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	123704.02	< 10	20 (101 %R)	20 (95 %R) (6 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	123704.02	< 2	22 (112 %R)	21 (107 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Toluene	123704.02	< 1	22 (109 %R)	21 (104 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	123704.02	< 2	20 (101 %R)	19 (97 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	123704.02	< 2	21 (105 %R)	20 (100 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Hexanone	123704.02	< 10	20 (99 %R)	20 (95 %R) (4 RPD)	8/22/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	123704.02	< 2	21 (106 %R)	20 (102 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	123704.02	< 2	20 (100 %R)	19 (96 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	123704.02	< 2	18 (92 %R)	18 (89 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	123704.02	< 2	20 (102 %R)	19 (97 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	123704.02	3	24 (106 %R)	23 (102 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	123704.02	< 2	22 (108 %R)	21 (104 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	123704.02	< 1	22 (109 %R)	21 (104 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
mp-Xylene	123704.02	< 1	42 (106 %R)	41 (101 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
o-Xylene	123704.02	< 1	22 (108 %R)	21 (104 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Styrene	123704.02	< 1	22 (112 %R)	22 (108 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromoform	123704.02	< 2	18 (89 %R)	17 (86 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	123704.02	< 1	24 (120 %R)	23 (115 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Bromobenzene	123704.02	< 2	21 (104 %R)	20 (98 %R) (6 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	123704.02	< 2	21 (103 %R)	20 (99 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	123704.02	< 2	19 (97 %R)	19 (93 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	123704.02	< 1	23 (114 %R)	22 (109 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	123704.02	< 2	21 (106 %R)	20 (101 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	123704.02	< 2	22 (108 %R)	21 (104 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	123704.02	< 1	22 (110 %R)	21 (105 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	123704.02	< 1	22 (110 %R)	21 (106 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	123704.02	< 1	22 (109 %R)	21 (104 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	123704.02	< 1	22 (112 %R)	22 (108 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	123704.02	< 1	21 (107 %R)	20 (102 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	123704.02	< 1	23 (114 %R)	22 (109 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	123704.02	< 1	22 (107 %R)	22 (104 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	123704.02	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	123704.02	< 1	23 (113 %R)	22 (108 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	123704.02	< 2	18 (89 %R)	17 (86 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	123704.02	< 1	22 (108 %R)	21 (103 %R) (5 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	123704.02	< 1	21 (102 %R)	20 (99 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	123704.02	< 0.5	19 (94 %R)	18 (90 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
Naphthalene	123704.02	< 5	21 (103 %R)	20 (100 %R) (3 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	123704.02	< 1	20 (102 %R)	20 (98 %R) (4 RPD)	8/22/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	123704.02	113 %R	99 %R	99 %R	8/22/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4	123704.02	102 %R	101 %R	102 %R	8/22/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	123704.02	98 %R	98 %R	100 %R	8/22/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

LABORATORY REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-FPC-6A-0813	GW-FPC-6A-Dup-0813	Trip Blank 1,4 dioxane
Lab Sample ID:	123704.02	123704.03	123704.06
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	8/19/13	8/19/13	8/6/13
Date Received:	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13	8/22/13
Analyst:	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	10	10	1
1,4-Dioxane	**18**	**21**	< 0.25
4-Bromofluorobenzene (surr)	**113 %R**	**113 %R**	**113 %R**
Toluene-d8 (surr)	**98 %R**	**99 %R**	**99 %R**

QC REPORT

EAI ID#: **123704**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.8 (96 %R)	5.2 (105 %R) (9 RPD)	ug/l	8/22/13	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	114 %R	112 %R	113 %R	% Rec	8/22/13	70 - 130	50	8260B
Toluene-d8 (surr)	104 %R	104 %R	104 %R	% Rec	8/22/13	70 - 130	50	8260B

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	123704.02	18	75 (114 %R)	75 (114 %R) (0 RPD)	ug/l	8/22/13	70-130	20	8260B
4-Bromofluorobenzene	123704.02	113 %R	112 %R	115 %R	%	8/22/13		50	8260B
Toluene-d8 (surr)	123704.02	98 %R	104 %R	105 %R	%	8/22/13		50	8260B

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

123704

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX	524.2 MTBE ONLY	8260B 624 VTICs 1,4 DIOXANE	8021B BTEX HALOS	8015B GRO MAPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	TPH8100 L1 L2	8015B DRO MAEPH	PEST 608 PCB 608 PEST 8081A PCB 8082	OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.	Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	BOD CBOD T. ALK.	TKN NH_3 T. PHOS. O. PHOS.	pH T. RES. CHLORINE	COD PHENOLS TOC DOC	TOTAL CYANIDE TOTAL SULFIDE	REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM	ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: 1,4 Dioxane			# OF CONTAINERS	NOTES MEOH VIAL #
TRIP BLANK	8/19/13 1442	GW	G			X																					X			4	
GW-FRC-6A-0813	1442					X																					X			5	
GW-FRC-6A-DUP-0813						X																					X			5	
GW-FRC-6A-MS-0813						X																					X			5	
GW-FRC-6A-MSD-0813						X																					X			5	
GW-AE-4A-0813	1748					X																								3	
GW-AE-4B-0813	1634					X																								3	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH						4																					X				

PROJECT MANAGER: Steve Marcotte
COMPANY: Summit ENV Consultants
ADDRESS: 640 Main Street
CITY: LEWISTON STATE: ME ZIP: 04240
PHONE: 207-795-6009 EXT.:
FAX:
E-MAIL: SMarcotte@summitenv.com.
SITE NAME: OAKLEY LANDFILL
PROJECT #: 12-3173
STATE: (NH) MA ME VT OTHER:
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: S-perfund
QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL
A B (Special) C OR
PRESUMPTIVE CERTAINTY

REPORTING OPTIONS
PRELIMS: (YES) OR NO
IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS
NO FAX E-MAIL (PDF) EQUIS

TEMP. 3 °C
ICE? (YES) NO

SAMPLER(S): Marcotte

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	8/20/13	1120	[signature]
[signature]	8-20-13	14:05	[signature]
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU
OTHER METALS:
SAMPLES FIELD FILTERED? ☐ YES ☒ NO
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
TRIP BLANKS 8260 & 7/10/13 13:50
1,4D 8/16/13 9:30
EAI PREPPED

PA 8/30/13
SITE HISTORY:
SUSPECTED CONTAMINATION:
FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

123704
VOC 8260B
Initial Calibration

IS/SS ID= V- 4089
Standard ID= V- 4091 A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- ~~4092 (New G)~~ 4085 (L) 4084 (G)

Analyst: [signature]

Date: ~~8/19/13~~ 8/19/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA081901	BFB25ng					VOCMS	5L1D0819			
2		0.2					VOCMS	5V1D0819	Used for BFB = Auto Find		✓
3		0.5					VOCMS				
4		1					VOCMS				
5		BFB25ng					VOCMS		Average entire peak		✓
6		2					VOCMS				
7		5					VOCMS				
8		10					VOCMS				
9		20					VOCMS				
10		50					VOCMS				
11		50G					VOCMS				
12		100					VOCMS				
13		100G					VOCMS				
14		200					VOCMS				
15		200G					VOCMS				
16		300					VOCMS				
17		300G					VOCMS				
18		400G					VOCMS				
19		600G					VOCMS				
20		Blank					VOCMS				
21							VOCMS				
22							VOCMS				
23		LCS20					VOCMS				
							VOCMS				
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							VOCMS				

Samples removed from autosampler, order and pH verified by N/A [signature] 8/20/13 1-23

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
1)	Fluorobenzene IS																				
2)	dichlorodifluoromethane	NA	NA	0.380	0.322	0.329	0.315	0.294	NA	0.316	NA	0.322	NA	0.304	NA	0.286	NA	NA	0.319	8.388	ok
3) P	chloromethane	NA	NA	0.358	0.306	0.300	0.278	0.260	NA	0.275	NA	0.270	NA	0.261	NA	0.250	NA	NA	0.284	11.707	ok
4) C	vinyl chloride	0.201	0.162	0.175	0.151	0.144	0.135	0.122	NA	0.132	NA	0.123	NA	NA	NA	NA	NA	NA	0.149	17.498	#
5)	bromomethane	NA	NA	0.150	0.126	0.127	0.139	0.142	NA	0.168	NA	0.179	NA	0.174	NA	0.162	NA	NA	0.152	13.081	ok
6)	chloroethane	NA	NA	0.208	0.182	0.183	0.174	0.165	NA	0.180	NA	0.174	NA	0.163	NA	0.148	NA	NA	0.175	9.504	ok
7)	trichlorofluoromethane	NA	NA	0.440	0.377	0.390	0.375	0.357	NA	0.385	NA	0.378	NA	0.353	NA	0.326	NA	NA	0.376	8.269	ok
8)	diethyl ether	NA	NA	0.230	0.199	0.204	0.197	0.187	NA	0.200	NA	0.198	NA	0.184	NA	0.172	NA	NA	0.197	8.095	ok
9)	1,1,2-Trichlorotrifluoroethane	NA	NA	0.315	0.268	0.265	0.255	0.246	NA	0.262	NA	0.258	NA	0.242	NA	0.220	NA	NA	0.259	9.937	ok
10)	acrolein	NA	NA	NA	NA	0.025	0.022	0.021	NA	0.020	NA	0.020	NA	0.019	NA	0.018	NA	NA	0.021	10.811	ok
11)	acetone	NA	NA	NA	0.073	0.064	0.062	0.058	NA	0.060	NA	0.060	NA	0.056	NA	0.053	NA	NA	0.061	9.970	ok
12) C	1,1-dichloroethene	0.328	0.260	0.257	0.249	0.229	0.239	0.243	0.241	NA	0.225	NA	0.232	NA	0.217	NA	NA	NA	0.247	12.059	ok
13)	tert-Butyl Alcohol(TBA)	NA	NA	0.024	0.023	0.021	0.021	0.021	0.021	NA	0.020	NA	0.021	NA	0.020	NA	NA	NA	0.021	7.080	ok
14)	Iodomethane	NA	NA	0.169	0.163	0.223	0.260	0.277	NA	0.350	NA	0.360	NA	0.350	NA	0.325	NA	NA	0.275	28.075	#
15)	methylene chloride	NA	NA	0.293	0.307	0.267	0.266	0.266	0.260	NA	0.240	NA	0.239	NA	0.219	NA	NA	NA	0.262	10.345	ok
16)	carbon disulfide	NA	NA	0.962	0.812	0.697	0.710	0.726	0.732	NA	0.702	NA	0.706	NA	0.645	NA	NA	NA	0.744	12.483	ok
17)	acrylonitrile	NA	NA	0.132	0.112	0.111	0.110	0.103	NA	0.106	NA	0.105	NA	0.101	NA	0.096	NA	NA	0.108	9.409	ok
18)	Methyl-t-butyl ether(MTBE)	0.895	0.724	0.760	0.692	0.675	0.685	0.665	NA	0.689	NA	0.684	NA	0.667	NA	0.625	0.617	0.588	0.690	11.060	ok
19)	trans-1,2-dichloroethene	NA	NA	0.265	0.274	0.255	0.266	0.272	0.275	NA	0.260	NA	0.271	NA	0.261	NA	NA	NA	0.267	2.532	ok
20)	hexane	NA	NA	0.479	0.410	0.418	0.393	0.391	NA	0.420	NA	0.426	NA	0.400	NA	0.374	NA	NA	0.413	7.280	ok
21)	Isopropyl ether(DIPE)	NA	NA	0.950	0.957	0.895	0.928	0.944	0.958	NA	0.897	NA	0.923	NA	0.874	NA	NA	NA	0.925	3.299	ok
22)	vinyl acetate	NA	NA	0.533	0.456	0.453	0.431	0.472	NA	0.520	NA	0.531	NA	0.496	NA	0.378	NA	NA	0.475	10.826	ok
23) P	1,1-dichloroethane	NA	NA	0.506	0.498	0.471	0.494	0.503	0.503	NA	0.476	NA	0.493	NA	0.477	NA	NA	NA	0.491	2.711	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G AVG	%RSD	
24)	Ethyl-t-butyl ether(ETBE)	NA	NA	0.838	0.836	0.786	0.817	0.827	0.843	NA	0.793	NA	0.823	NA	0.792	NA	NA	NA	0.817	2.656 ok
25)	2,2-dichloropropane	NA	NA	0.359	0.373	0.354	0.362	0.392	0.395	NA	0.362	NA	0.390	NA	0.360	NA	NA	NA	0.372	4.330 ok
26)	cis-1,2-dichloroethene	NA	NA	0.370	0.400	0.379	0.386	0.396	0.398	NA	0.374	NA	0.386	NA	0.369	NA	NA	NA	0.384	3.153 ok
27)	2-butanone(MEK)	NA	NA	0.141	0.119	0.111	0.107	0.100	NA	0.110	NA	0.110	NA	0.106	NA	0.103	NA	NA	0.112	10.926 ok
28)	bromochloromethane	NA	NA	0.140	0.143	0.133	0.141	0.141	0.146	NA	0.139	NA	0.146	NA	0.141	NA	NA	NA	0.141	2.824 ok
29)	Tetrahydrofuran(THF)	NA	NA	NA	0.087	0.079	0.075	0.070	NA	0.075	NA	0.075	NA	0.073	NA	0.070	NA	NA	0.075	7.386 ok
30) C	chloroform	NA	NA	0.499	0.487	0.454	0.473	0.479	0.483	NA	0.457	NA	0.476	NA	0.460	NA	NA	NA	0.474	3.170 ok
31)	SS Dibromofluoromethane_MS	0.232	0.234	0.236	0.236	0.238	0.239	0.239	0.239	0.236	0.241	0.237	0.236	0.236	0.240	0.231	0.232	0.224	0.236	1.748 ok
32)	1,1,1-trichloroethane	NA	NA	0.389	0.397	0.377	0.392	0.406	0.413	NA	0.392	NA	0.411	NA	0.391	NA	NA	NA	0.396	2.964 ok
33)	carbon tetrachloride	NA	NA	0.314	0.312	0.301	0.330	0.350	0.367	NA	0.353	NA	0.372	NA	0.353	NA	NA	NA	0.339	7.584 ok
34)	1,1-dichloropropene	NA	NA	0.403	0.403	0.374	0.388	0.399	0.401	NA	0.380	NA	0.394	NA	0.372	NA	NA	NA	0.391	3.194 ok
35)	SS 1,2-DCA-d4_MS	0.291	0.293	0.295	0.294	0.293	0.290	0.281	0.274	0.290	0.266	0.289	0.259	0.283	0.255	0.276	0.279	0.274	0.281	4.428 ok
36)	tert-amyl methyl ether(TAME)	NA	NA	0.718	0.710	0.677	0.706	0.719	0.744	NA	0.709	NA	0.748	NA	0.726	NA	NA	NA	0.717	2.970 ok
37)	benzene	NA	NA	1.171	1.176	1.101	1.132	1.151	1.161	NA	1.088	NA	1.096	NA	0.995	NA	NA	NA	1.119	5.096 ok
38)	1,2-dichloroethane	NA	NA	0.403	0.411	0.382	0.392	0.392	0.390	NA	0.359	NA	0.354	NA	0.324	NA	NA	NA	0.378	7.316 ok
39)	trichloroethene	0.381	0.317	0.301	0.294	0.282	0.294	0.294	0.300	NA	0.286	NA	0.295	NA	0.281	NA	NA	NA	0.302	9.199 ok
40) C	1,2-dichloropropane	NA	NA	0.278	0.281	0.271	0.280	0.288	0.293	NA	0.278	NA	0.290	NA	0.276	NA	NA	NA	0.282	2.551 ok
41)	1,4-dioxaneV	NA	NA	NA	NA	0.003	0.003	0.003	NA	0.003	NA	0.003	NA	0.003	NA	0.003	0.003	0.003	0.003	5.838 ok
42)	dibromomethane	NA	NA	0.158	0.162	0.151	0.158	0.161	0.167	NA	0.160	NA	0.166	NA	0.158	NA	NA	NA	0.160	2.910 ok
43)	bromodichloromethane	0.403	0.308	0.296	0.302	0.296	0.325	0.342	0.363	NA	0.348	NA	0.366	NA	0.352	NA	NA	NA	0.336	10.244 ok
44)	2-Chloroethoxyethene	NA	NA	0.022	0.013	0.019	0.019	0.027	NA	0.041	NA	0.061	NA	0.081	NA	0.089	NA	NA	0.041	69.330 #
45)	4-methyl-2-pentanone(MIBK)	NA	NA	0.095	0.080	0.084	0.086	0.082	NA	0.092	NA	0.094	NA	0.091	NA	0.089	NA	NA	0.088	5.866 ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
46)	cis-1,3-dichloropropene	0.460	0.374	0.359	0.367	0.362	0.394	0.418	0.438	NA	0.419	NA	0.441	NA	0.418	NA	NA	NA	0.404	8.694	ok
47)	Chlorobenzene-D5 IS																				
48)	SS Toluene-d8_MS	1.289	1.271	1.281	1.276	1.265	1.270	1.272	1.257	1.284	1.269	1.287	1.254	1.268	1.247	1.268	1.258	1.252	1.269	0.971	ok
49) C	toluene	NA	NA	1.644	1.637	1.524	1.591	1.610	1.619	NA	1.492	NA	1.446	NA	1.254	NA	NA	NA	1.535	8.202	ok
50)	trans-1,3-dichloropropene	0.547	0.412	0.418	0.415	0.418	0.467	0.498	0.530	NA	0.502	NA	0.521	NA	0.477	NA	NA	NA	0.473	10.709	ok
51)	1,1,2-trichloroethane	NA	NA	0.248	0.244	0.233	0.245	0.245	0.252	NA	0.238	NA	0.248	NA	0.230	NA	NA	NA	0.242	3.010	ok
52)	2-hexanone	NA	NA	0.220	0.183	0.194	0.193	0.182	NA	0.201	NA	0.201	NA	0.195	NA	0.186	NA	NA	0.195	6.012	ok
53)	tetrachloroethene	0.531	0.419	0.434	0.428	0.399	0.414	0.418	0.427	NA	0.405	NA	0.408	NA	0.368	NA	NA	NA	0.423	9.501	ok
54)	1,3-dichloropropane	0.722	0.532	0.530	0.530	0.498	0.526	0.526	0.535	NA	0.500	NA	0.514	NA	0.469	NA	NA	NA	0.535	12.201	ok
55)	dibromochloromethane	NA	NA	0.236	0.242	0.254	0.289	0.317	0.348	NA	0.341	NA	0.361	NA	0.337	NA	NA	NA	0.303	16.103	#
56)	1,2-dibromoethane	NA	NA	0.297	0.297	0.286	0.306	0.311	0.324	NA	0.308	NA	0.318	NA	0.299	NA	NA	NA	0.305	3.811	ok
57) P	chlorobenzene	NA	NA	1.105	1.102	1.036	1.074	1.096	1.101	NA	1.019	NA	0.996	NA	0.866	NA	NA	NA	1.044	7.465	ok
58)	1,1,1,2-tetrachloroethane	NA	NA	0.305	0.303	0.302	0.336	0.351	0.364	NA	0.337	NA	0.307	NA	0.256	NA	NA	NA	0.318	10.272	ok
59) C	ethylbenzene	NA	NA	1.877	1.868	1.750	1.833	1.860	1.848	NA	1.647	NA	1.395	NA	NA	NA	NA	NA	1.760	9.477	ok
60)	mp-xylene	0.953	0.754	0.742	0.742	0.706	0.738	0.747	0.740	NA	0.640	NA	0.515	NA	NA	NA	NA	NA	0.728	14.899	ok
61)	o-xylene	NA	NA	0.700	0.721	0.669	0.713	0.725	0.734	NA	0.673	NA	0.638	NA	0.542	NA	NA	NA	0.679	8.882	ok
62)	styrene	NA	NA	1.115	1.151	1.109	1.184	1.221	1.232	NA	1.133	NA	1.049	NA	0.884	NA	NA	NA	1.120	9.404	ok
63) P	bromoform	NA	NA	0.122	0.122	0.132	0.159	0.183	0.214	NA	0.215	NA	0.232	NA	0.215	NA	NA	NA	0.177	24.884	#
64)	iso-propylbenzene	NA	NA	1.668	1.719	1.621	1.709	1.749	1.749	NA	1.590	NA	1.455	NA	1.218	NA	NA	NA	1.609	10.808	ok
65)	SS 4-BFB_MS	0.496	0.492	0.498	0.494	0.499	0.500	0.501	0.499	0.495	0.500	0.491	0.491	0.493	0.495	0.501	0.501	0.497	0.497	0.720	ok
66)	1,4-Dichlorobenzene-D4 IS																				
67)	bromobenzene	NA	NA	0.862	0.865	0.806	0.847	0.860	0.871	NA	0.821	NA	0.821	NA	0.750	NA	NA	NA	0.834	4.692	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
68) P	1,1,2,2-tetrachloroethane	NA	NA	0.652	0.664	0.627	0.661	0.693	0.711	NA	0.666	NA	0.686	NA	0.625	NA	NA	NA	0.665	4.303	ok
69)	1,2,3-trichloropropane	NA	NA	0.224	0.218	0.204	0.213	0.214	0.221	NA	0.207	NA	0.212	NA	0.197	NA	NA	NA	0.212	4.052	ok
70)	trans-1,4-dichloro-2-butene	NA	NA	0.096	0.100	0.100	0.118	0.136	0.151	NA	0.151	NA	0.162	NA	0.150	NA	NA	NA	0.129	20.297	#
71)	n-propylbenzene	NA	NA	4.020	4.143	3.881	4.006	4.112	4.062	NA	3.702	NA	3.288	NA	2.706	NA	NA	NA	3.769	12.728	ok
72)	2-chlorotoluene	NA	NA	2.526	2.563	2.390	2.437	2.480	2.440	NA	2.294	NA	2.095	NA	1.864	NA	NA	NA	2.343	9.720	ok
73)	4-chlorotoluene	NA	NA	2.569	2.586	2.424	2.490	2.528	2.503	NA	2.221	NA	2.086	NA	1.736	NA	NA	NA	2.349	12.101	ok
74)	1,3,5-trimethylbenzene	NA	NA	2.836	2.900	2.735	2.850	2.895	2.894	NA	2.646	NA	2.386	NA	2.001	NA	NA	NA	2.682	11.373	ok
75)	tert-butylbenzene	NA	NA	2.520	2.592	2.414	2.510	2.559	2.538	NA	2.315	NA	2.157	NA	1.820	NA	NA	NA	2.381	10.582	ok
76)	1,2,4-trimethylbenzene	NA	NA	2.926	2.958	2.833	2.944	2.981	2.964	NA	2.669	NA	2.366	NA	1.964	NA	NA	NA	2.734	12.853	ok
77)	sec-butylbenzene	NA	NA	3.526	3.629	3.399	3.547	3.614	3.615	NA	3.268	NA	2.861	NA	2.346	NA	NA	NA	3.312	13.205	ok
78)	1,3-dichlorobenzeneV	NA	NA	1.646	1.696	1.572	1.642	1.681	1.692	NA	1.570	NA	1.458	NA	1.245	NA	NA	NA	1.578	9.274	ok
79)	p-isopropyltoluene	NA	NA	2.949	3.015	2.895	3.052	3.140	3.122	NA	2.803	NA	2.453	NA	2.015	NA	NA	NA	2.827	13.062	ok
80)	1,4-dichlorobenzeneV	NA	NA	1.655	1.695	1.575	1.633	1.672	1.688	NA	1.566	NA	1.454	NA	1.230	NA	NA	NA	1.574	9.536	ok
81)	1,2-dichlorobenzeneV	NA	NA	1.538	1.582	1.463	1.517	1.554	1.575	NA	1.460	NA	1.371	NA	1.177	NA	NA	NA	1.471	8.788	ok
82)	n-butylbenzene	NA	NA	2.440	2.547	2.443	2.579	2.671	2.665	NA	2.409	NA	2.136	NA	1.748	NA	NA	NA	2.404	12.262	ok
83)	SS 1,2-DCB-d4_MS	1.004	0.999	1.000	0.993	1.002	0.992	1.002	1.000	1.003	1.011	1.001	0.995	0.997	0.979	0.991	1.000	1.002	0.998	0.699	ok
84)	1,2-dibromo-3-chloropropane	NA	NA	0.091	0.094	0.095	0.114	0.125	0.143	NA	0.142	NA	0.149	NA	0.143	NA	NA	NA	0.122	19.514	#
85)	1,3,5-trichlorobenzV	NA	NA	0.917	0.922	0.874	0.929	0.966	0.998	NA	0.955	NA	0.949	NA	0.850	NA	NA	NA	0.929	4.939	ok
86)	1,2,4-trichlorobenzV	NA	NA	0.740	0.763	0.721	0.786	0.808	0.852	NA	0.815	NA	0.828	NA	0.765	NA	NA	NA	0.786	5.470	ok
87)	hexachlorobutadieneV	0.453	0.336	0.325	0.334	0.308	0.335	0.351	0.365	NA	0.353	NA	0.371	NA	0.345	NA	NA	NA	0.352	10.764	ok
88)	naphthaleneV	NA	NA	1.784	1.830	1.828	2.015	2.094	2.226	NA	2.103	NA	2.089	NA	1.889	NA	NA	NA	1.984	7.844	ok
89)	1,2,3-trichlorobenzV	NA	NA	0.649	0.651	0.626	0.665	0.694	0.728	NA	0.698	NA	0.716	NA	0.675	NA	NA	NA	0.678	4.937	ok
90)	SS 2,5-DBT_MS	NA	NA	0.132	0.142	0.158	0.184	0.203	0.232	NA	0.230	NA	0.251	NA	0.250	NA	NA	NA	0.198	23.351	#

(#) = Out of Range

Compound List Report VOAMS5

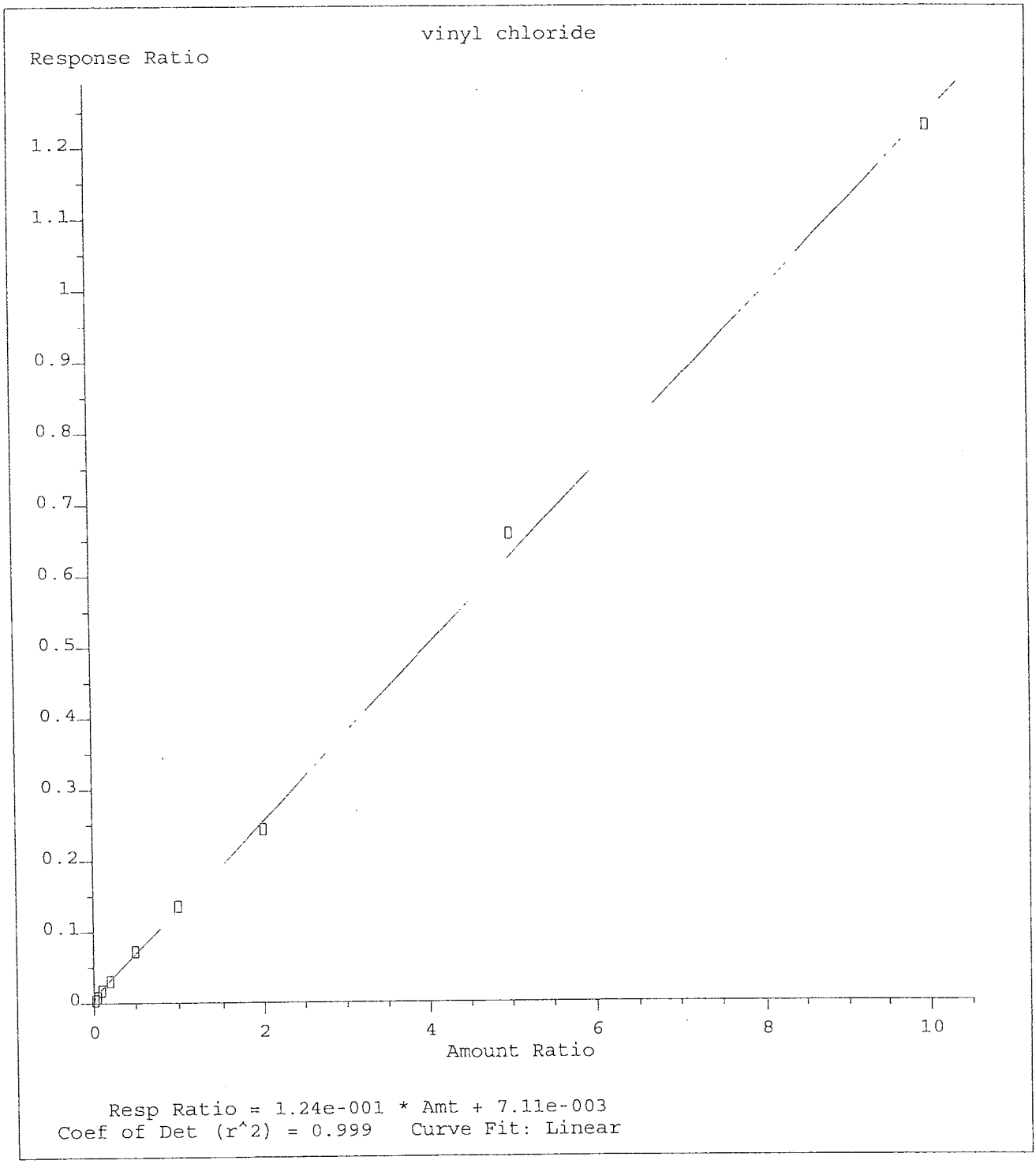
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
Total Cpnds : 90

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID	
1	I	Fluorobenzene IS	96	11.99	1.000	A	2	A	B	
2		dichlorodifluoromethane	85	2.84	0.237	A	2	A	B	
3	P	chloromethane	50	3.19	0.266	A	1	A	B	
4	C	vinyl chloride	62	3.33	0.277	L	1	A	B	
5		bromomethane	94	3.98	0.331	A	2	A	B	
6		chloroethane	64	4.09	0.341	A	2	A	B	
7		trichlorofluoromethane	101	4.50	0.376	A	2	A	B	
8		diethyl ether	59	5.02	0.419	A	2	A	B	
9		1,1,2-Trichlorotrifluoroethane	101	5.26	0.438	A	2	A	B	
10		acrolein	56	5.27	0.439	A	1	A	B	
11		acetone	43	5.41	0.451	A	1	A	B	
12	CM	1,1-dichloroethene	96	5.60	0.467	A	3	A	B	
13		tert-Butyl Alcohol(TBA)	59	5.78	0.482	A	1	A	B	
14		Iodomethane	142	6.20	0.517	L	3	A	B	Nontarget
15		methylene chloride	84	6.54	0.546	A	2	A	B	
16		carbon disulfide	76	6.56	0.547	A	1	A	B	
17		acrylonitrile	53	6.83	0.569	A	2	A	B	
18		Methyl-t-butyl ether(MTBE)	73	6.87	0.572	A	3	A	B	
19		trans-1,2-dichloroethene	96	7.14	0.595	A	3	A	B	
20		hexane	57	7.27	0.606	A	3	A	B	
21		Isopropyl ether(DIPE)	45	7.83	0.652	A	3	A	B	
22		vinyl acetate	43	8.06	0.672	A	1	A	B	
23	P	1,1-dichloroethane	63	8.04	0.670	A	2	A	B	
24		Ethyl-t-butyl ether(ETBE)	59	8.70	0.725	A	3	A	B	
25		2,2-dichloropropane	77	9.25	0.771	A	3	A	B	
26		cis-1,2-dichloroethene	61	9.36	0.780	A	3	A	B	
27		2-butanone(MEK)	43	8.98	0.749	A	2	A	B	
28		bromochloromethane	128	10.08	0.840	A	3	A	B	
29		Tetrahydrofuran(THF)	42	10.16	0.847	A	2	A	B	
30	C	chloroform	83	9.71	0.810	A	2	A	B	
31	S	SS Dibromofluoromethane_MS	111	10.20	0.850	A	2	A	B	
32		1,1,1-trichloroethane	97	10.59	0.883	A	3	A	B	
33		carbon tetrachloride	117	11.17	0.931	A	3	A	B	
34		1,1-dichloropropene	75	10.97	0.914	A	3	A	B	
35	S	SS 1,2-DCA-d4_MS	65	11.33	0.945	A	2	A	B	
36		tert-amyl methyl ether(TAME)	73	11.25	0.938	A	3	A	B	
37	M	benzene	78	11.56	0.964	A	3	A	B	
38		1,2-dichloroethane	62	11.54	0.962	A	2	A	B	
39	M	trichloroethene	95	12.74	1.062	A	3	A	B	
40	C	1,2-dichloropropane	63	13.05	1.088	A	3	A	B	
41		1,4-dioxaneV	88	13.51	1.126	A	2	A	B	
42		dibromomethane	93	13.53	1.128	A	3	A	B	
43		bromodichloromethane	83	13.44	1.121	A	3	A	B	
44		2-Chloroethoxyethene	63	13.95	1.163	Q	3	A	B	Nontarget
45		4-methyl-2-pentanone(MIBK)	58	14.00	1.167	A	3	A	B	
46		cis-1,3-dichloropropene	75	14.31	1.193	A	3	A	B	
47	I	Chlorobenzene-D5 IS	117	16.70	1.000	A	2	A	B	
48	S	SS Toluene-d8_MS	98	14.66	0.878	A	2	A	B	
49	CM	toluene	91	14.78	0.885	A	3	A	B	
50		trans-1,3-dichloropropene	75	15.04	0.900	A	3	A	B	
51		1,1,2-trichloroethane	83	15.25	0.914	A	3	A	B	
52		2-hexanone	43	15.27	0.914	A	2	A	B	
53		tetrachloroethene	166	15.68	0.939	A	3	A	B	
54		1,3-dichloropropane	76	15.60	0.934	A	2	A	B	
55		dibromochloromethane	129	15.96	0.956	L	3	A	B	
56		1,2-dibromoethane	107	16.22	0.972	A	3	A	B	
57	PM	chlorobenzene	112	16.75	1.003	A	2	A	B	
58		1,1,1,2-tetrachloroethane	131	16.79	1.006	A	3	A	B	
59	C	ethylbenzene	91	16.80	1.006	A	3	A	B	
60		mp-xylene	106	16.90	1.012	A	3	A	B	
61		o-xylene	106	17.43	1.044	A	3	A	B	
62		styrene	104	17.47	1.046	A	3	A	B	
63	P	bromoform	173	17.90	1.072	L	3	A	B	
64		iso-propylbenzene	105	17.83	1.068	A	3	A	B	

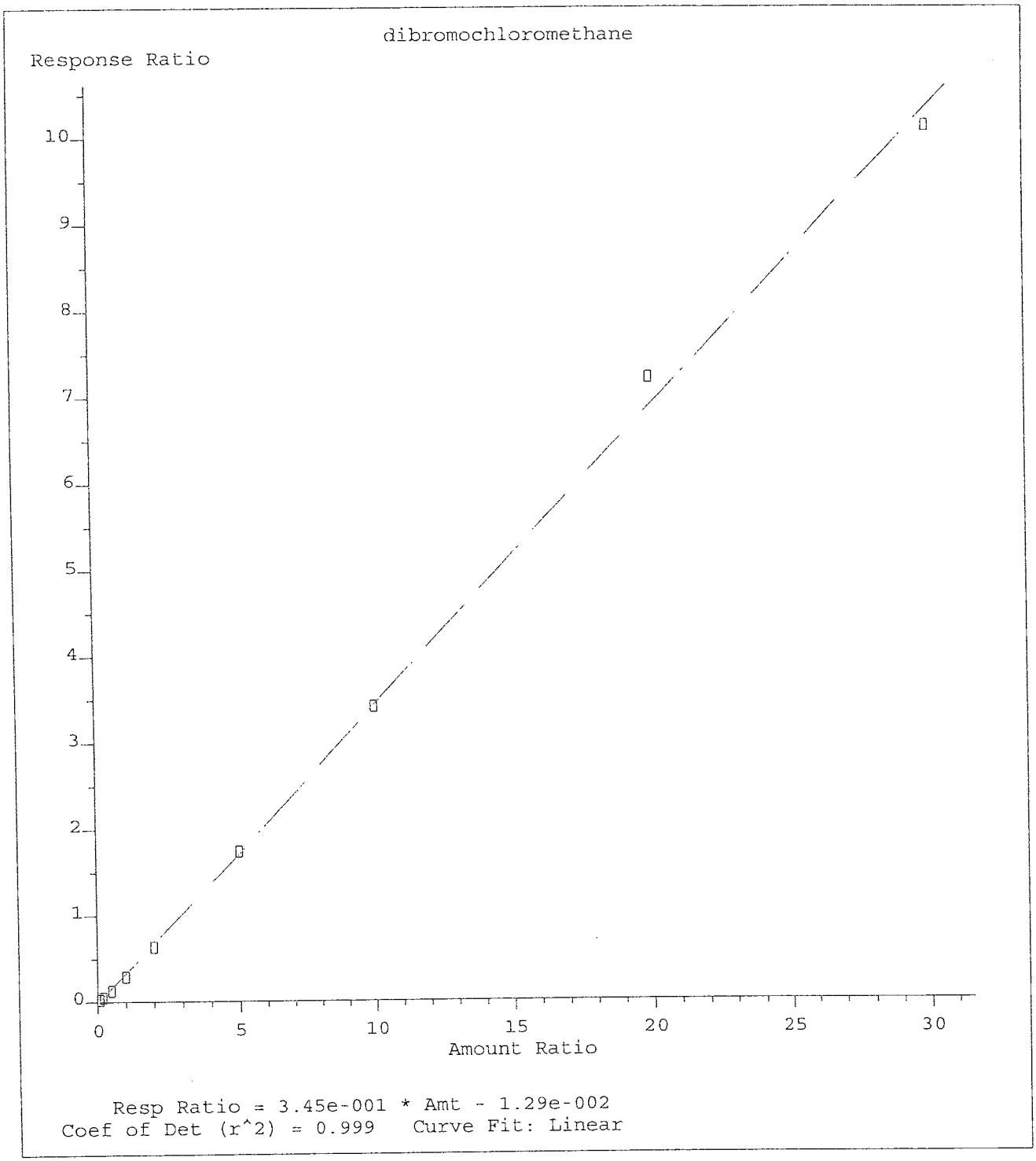
65	S	SS 4-BFB_MS	95	18.14	1.086	A	3	A	B	
66	I	1,4-Dichlorobenzene-D4 IS	152	19.39	1.000	A	3	A	B	
67		bromobenzene	156	18.38	0.948	A	3	A	B	
68	P	1,1,2,2-tetrachloroethane	83	18.04	0.930	A	3	A	B	
69		1,2,3-trichloropropane	110	18.21	0.939	A	3	A	B	
70		trans-1,4-dichloro-2-butene	75	18.28	0.943	L	3	A	B	Nontarget
71		n-propylbenzene	91	18.30	0.943	A	1	A	B	
72		2-chlorotoluene	91	18.52	0.955	A	2	A	B	
73		4-chlorotoluene	91	18.57	0.958	A	2	A	B	
74		1,3,5-trimethylbenzene	105	18.47	0.953	A	3	A	B	
75		tert-butylbenzene	119	18.86	0.972	A	3	A	B	
76		1,2,4-trimethylbenzene	105	18.90	0.975	A	3	A	B	
77		sec-butylbenzene	105	19.07	0.983	A	3	A	B	
78		1,3-dichlorobenzeneV	146	19.33	0.997	A	3	A	B	
79		p-isopropyltoluene	119	19.20	0.990	A	3	A	B	
80		1,4-dichlorobenzeneV	146	19.43	1.002	A	3	A	B	
81		1,2-dichlorobenzeneV	146	19.79	1.020	A	3	A	B	
82		n-butylbenzene	91	19.59	1.010	A	3	A	B	
83	S	SS 1,2-DCB-d4_MS	152	19.76	1.019	A	3	A	B	
84		1,2-dibromo-3-chloropropane	157	20.52	1.058	L	3	A	B	
85		1,3,5-trichlorobenzV	180	20.75	1.070	A	3	A	B	
86		1,2,4-trichlorobenzV	180	21.45	1.106	A	3	A	B	
87		hexachlorobutadieneV	225	21.57	1.113	A	3	A	B	
88		naphthaleneV	128	21.78	1.123	A	3	A	B	
89		1,2,3-trichlorobenzV	180	22.06	1.138	A	3	A	B	
90	S	SS 2,5-DBT_MS	250	23.37	1.205	L	3	A	B	Nontarget

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

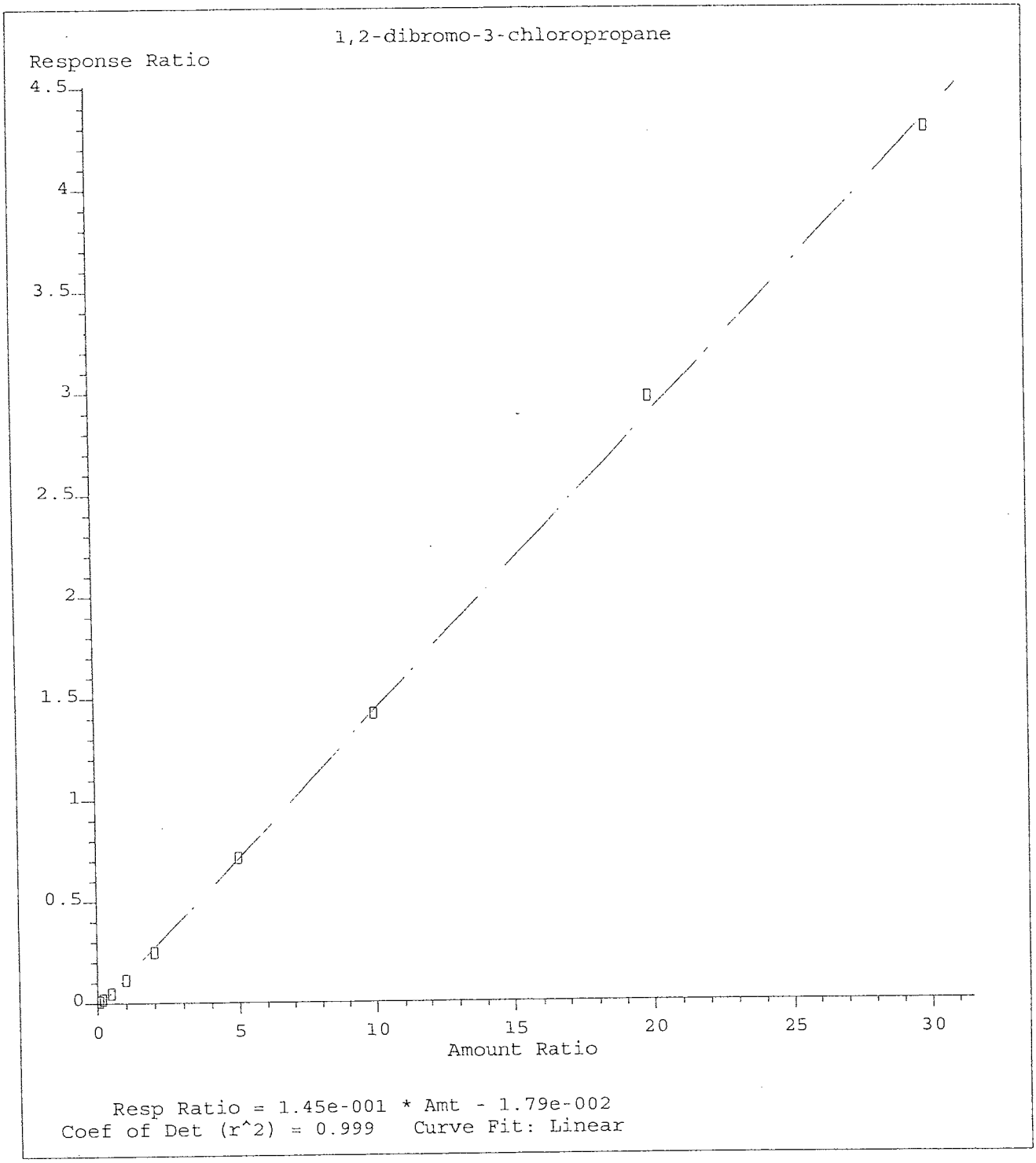
5VID0819.M Fri Aug 23 12:50:23 2013



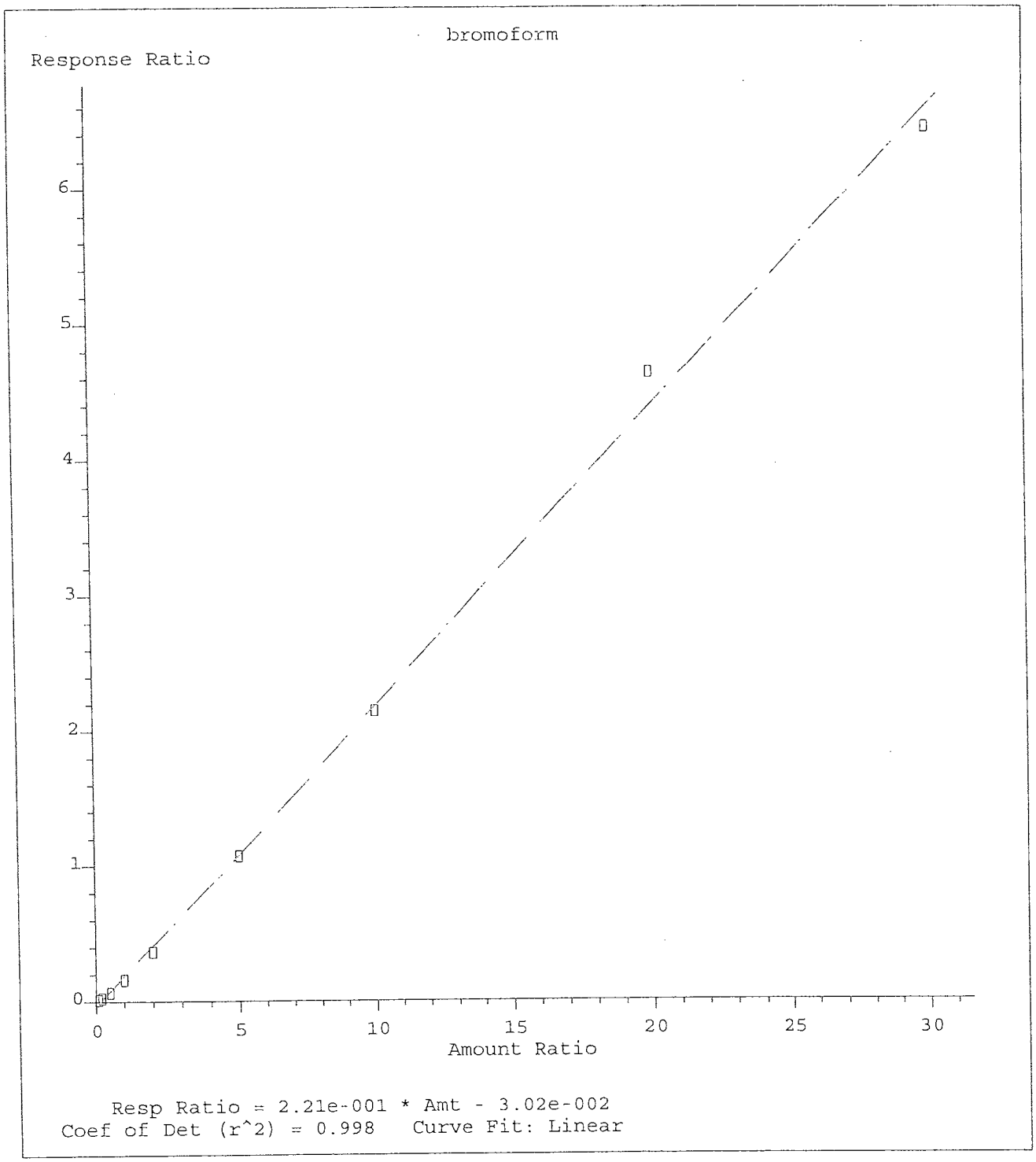
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Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

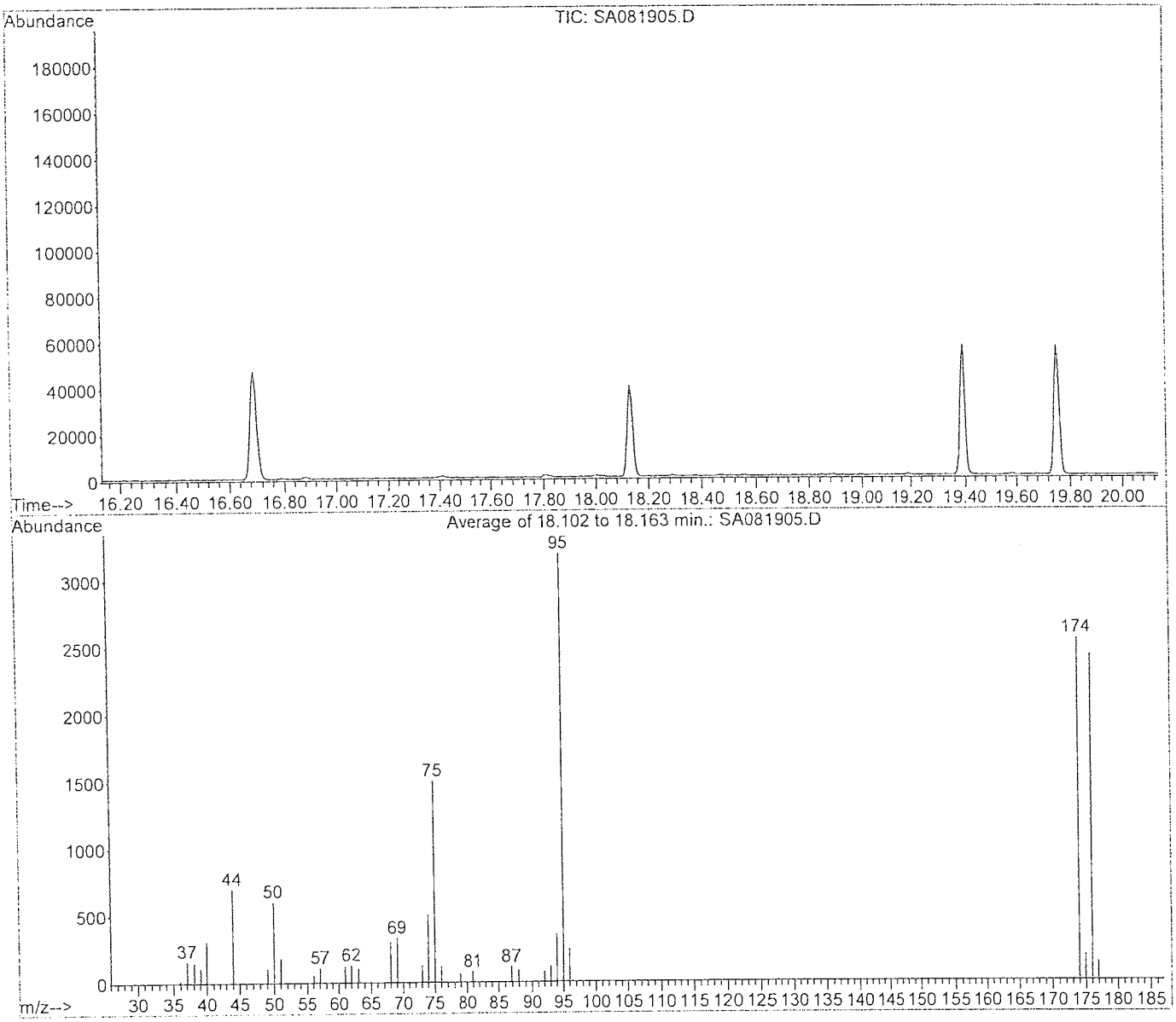


Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081905.D Vial: 5
Acq On : 19 Aug 2013 10:44 am Operator: BAM
Sample : BFB 25 MG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



Spectrum Information: Average of 18.102 to 18.163 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	605	PASS
75	95	30	60	47.1	1503	PASS
95	95	100	100	100.0	3194	PASS
96	95	5	9	7.7	245	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	2543	PASS
175	174	5	9	7.4	188	PASS
176	174	95	101	95.1	2418	PASS
177	176	5	9	5.6	135	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 12:13:37 2013 Quant Results File: 5LID0813.RES

Quant Method : C:\MSDCHEM\1...\5LID0813.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

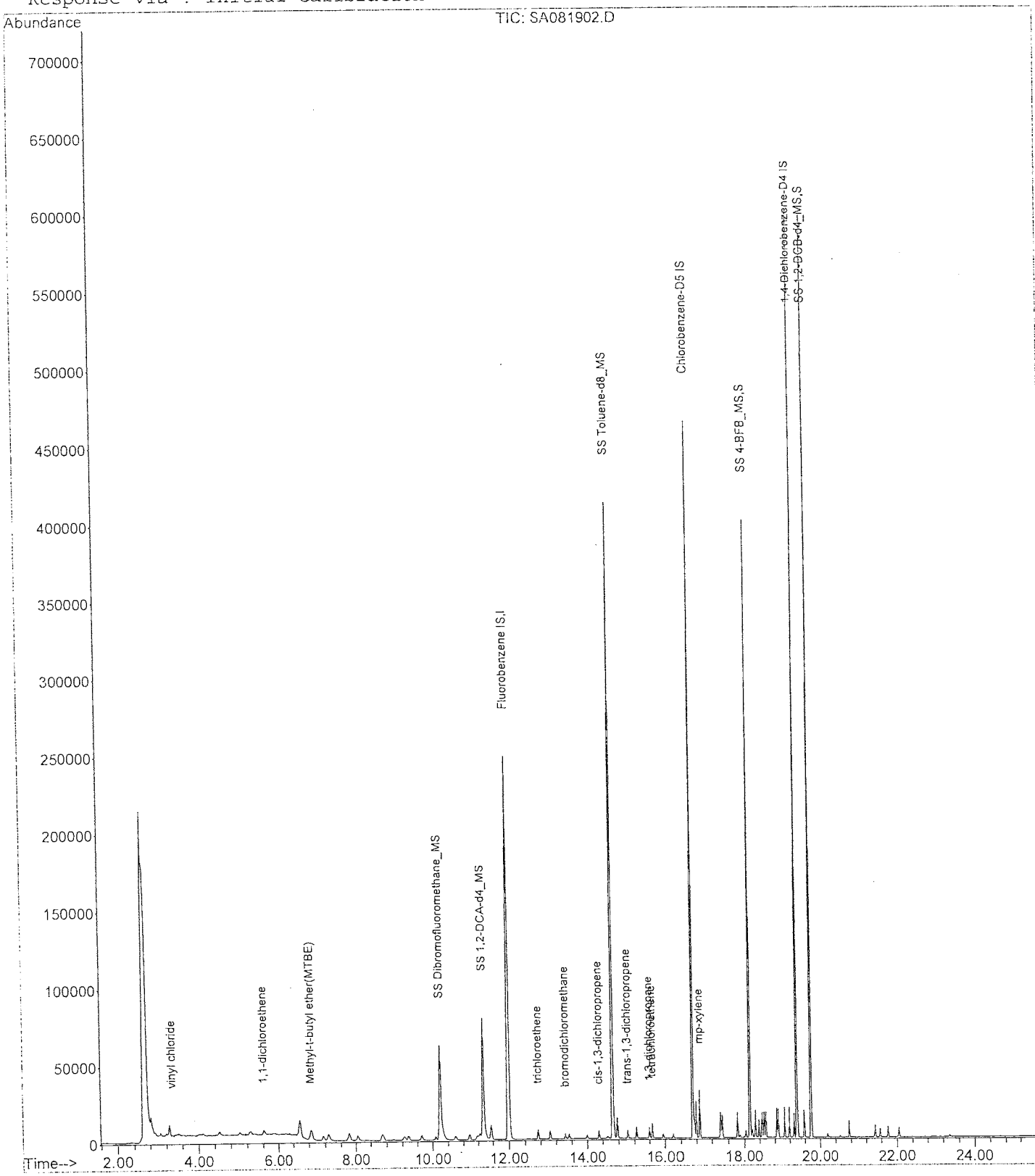
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	329584	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	125297	10.51	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.10%				
78) SS 1,2-DCB-d4_MS	19.75	152	131904	9.23	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.33%				
Target Compounds							Qvalue
4) vinyl chloride	3.34	62	1326	0.353	ug/L		94
11) 1,1-dichloroethene	5.61	96	2165	0.310	ug/L		93
16) Methyl-t-butyl ether(MTBE)	6.85	73	11802	0.703	ug/L		95
29) SS Dibromofluoromethane_MS	10.20	111	76497	9.528	ug/L	#	94
33) SS 1,2-DCA-d4_MS	11.34	65	95920	11.496	ug/L	#	94
37) trichloroethene	12.74	95	2509	0.276	ug/L	#	93
40) bromodichloromethane	13.44	83	2656	0.271	ug/L	#	93
42) cis-1,3-dichloropropene	14.30	75	3030	0.305	ug/L	#	77
43) Chlorobenzene-D5 IS	16.69	117	252752	9.805	ug/L	#	91
44) SS Toluene-d8_MS	14.65	98	325692	10.105	ug/L	#	96
46) trans-1,3-dichloropropene	15.03	75	2763	0.305	ug/L	#	75
49) tetrachloroethene	15.67	166	2685	0.235	ug/L	#	87
50) 1,3-dichloropropane	15.59	76	3650	0.285	ug/L	#	69
56) mp-xylene	16.89	106	9632	0.529	ug/L	#	91
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	131322	9.191	ug/L	#	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:38 2013 Quant Results File: 5LID0813.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:39:16 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

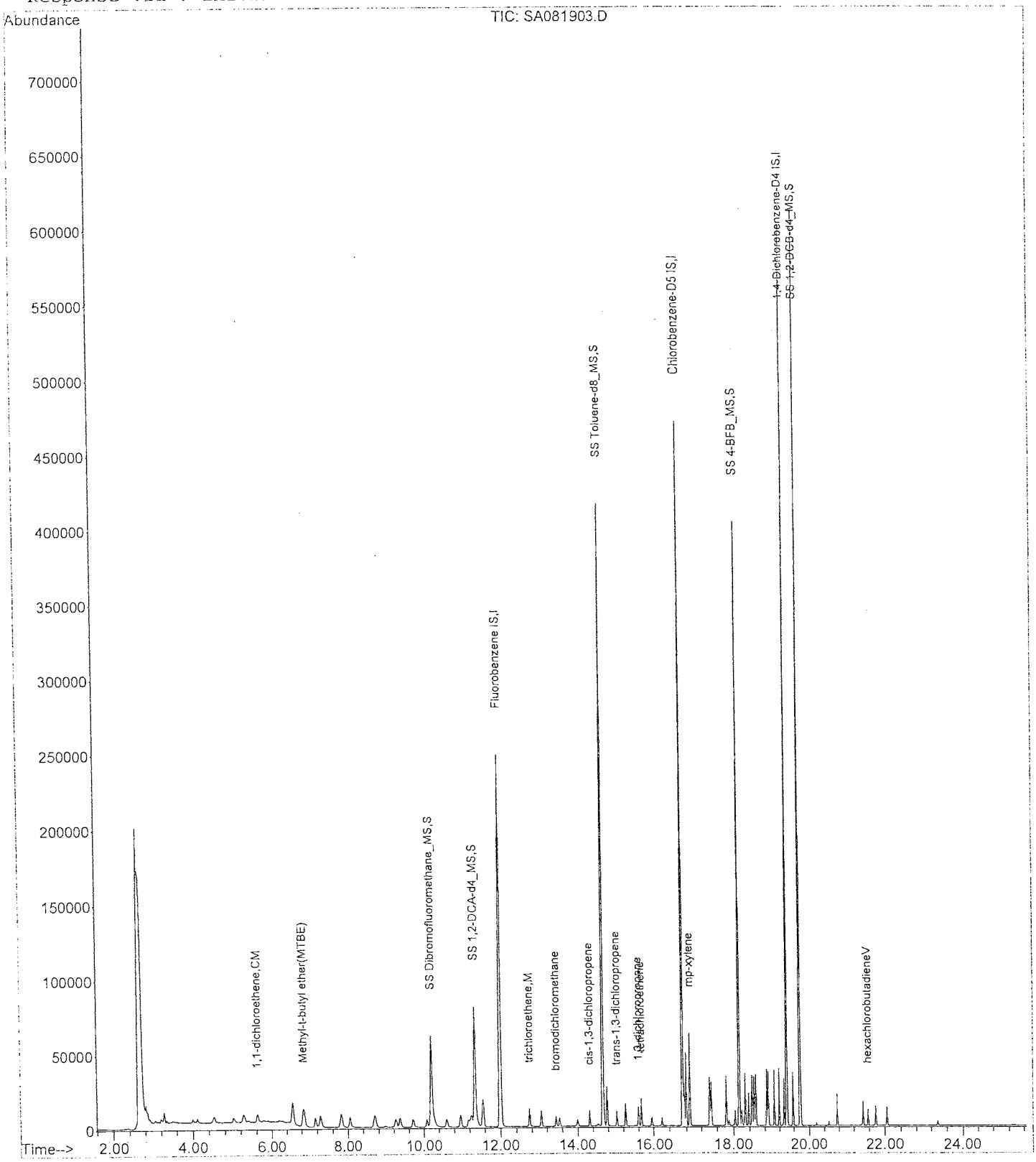
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329809	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	258269	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133996	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77167	12.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.69%#			
35) SS 1,2-DCA-d4_MS	11.33	65	96496	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.14%#			
48) SS Toluene-d8_MS	14.66	98	328246	12.90	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.04%#			
65) SS 4-BFB_MS	18.13	95	127157	13.22	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.15%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133798	12.67	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.74%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	2669	Below Cal		100
12) 1,1-dichloroethene	5.62	96	4286	0.585	ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.86	73	23890	1.478	ug/L #	93
39) trichloroethene	12.73	95	5229	0.667	ug/L	97
43) bromodichloromethane	13.44	83	5080	0.560	ug/L	96
46) cis-1,3-dichloropropene	14.30	75	6172	2.198	ug/L #	91
50) trans-1,3-dichloropropene	15.03	75	5318	1.795	ug/L #	90
53) tetrachloroethene	15.67	166	5406	0.608	ug/L	98
54) 1,3-dichloropropane	15.60	76	6873	0.608	ug/L #	82
60) mp-xylene	16.89	106	19484	1.300	ug/L	97
87) hexachlorobutadieneV	21.56	225	2252	0.579	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331046	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	256587	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135437	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78237	12.29	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.92%#			
35) SS 1,2-DCA-d4_MS	11.33	65	97737	13.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 131.32%#			
48) SS Toluene-d8_MS	14.65	98	328729	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.07%#			
65) SS 4-BFB_MS	18.13	95	127655	13.35	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	135388	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.88%#			
90) SS 2,5-DBT_MS	23.36	250	1783	6.00	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 15.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	12564	1.393	ug/L	98
3) chloromethane	3.19	50	11863	1.272	ug/L	100
4) vinyl chloride	3.34	62	5780	Below Cal		98
5) bromomethane	3.99	94	4980	0.936	ug/L	91
6) chloroethane	4.11	64	6898	1.230	ug/L	97
7) trichlorofluoromethane	4.52	101	14555	1.230	ug/L	98
8) diethyl ether	5.03	59	7616	1.328	ug/L	93
9) 1,1,2-Trichlorotrifluoroet	5.27	101	10431	1.490	ug/L #	87
10) acrolein	5.27	56	1636	2.405	ug/L #	70
11) acetone	5.39	43	3086	1.715	ug/L #	69
12) 1,1-dichloroethene	5.61	96	8518	1.159	ug/L	95
13) tert-Butyl Alcohol(TBA)	5.78	59	4046	8.003	ug/L #	81
15) methylene chloride	6.55	84	9698	1.177	ug/L	98
16) carbon disulfide	6.57	76	31835	1.499	ug/L #	94
17) acrylonitrile	6.82	53	4377	1.564	ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	50348	3.102	ug/L	94
19) trans-1,2-dichloroethene	7.15	96	8789	1.252	ug/L	96
20) hexane	7.29	57	15861	1.856	ug/L	94
21) Isopropyl ether(DIPE)	7.81	45	31465	1.457	ug/L	98
22) vinyl acetate	8.05	43	17655	1.502	ug/L	96
23) 1,1-dichloroethane	8.05	63	16758	1.290	ug/L #	95
24) Ethyl-t-butyl ether(ETBE)	8.70	59	27729	1.563	ug/L	98
25) 2,2-dichloropropane	9.24	77	11874	1.446	ug/L	99
26) cis-1,2-dichloroethene	9.36	61	12247	1.211	ug/L	95
27) 2-butanone(MEK)	8.98	43	4672	1.802	ug/L #	91
28) bromochloromethane	10.08	128	4642	1.212	ug/L	99
29) Tetrahydrofuran(THF)	10.18	42	3670	2.189	ug/L #	85
30) chloroform	9.71	83	16503	1.284	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	12866	1.269	ug/L	99
33) carbon tetrachloride	11.17	117	10403	1.147	ug/L	98
34) 1,1-dichloropropene	10.96	75	13340	1.339	ug/L	92
36) tert-amyl methyl ether(TAM	11.24	73	23753	5.976	ug/L #	89
37) benzene	11.55	78	38760	1.241	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

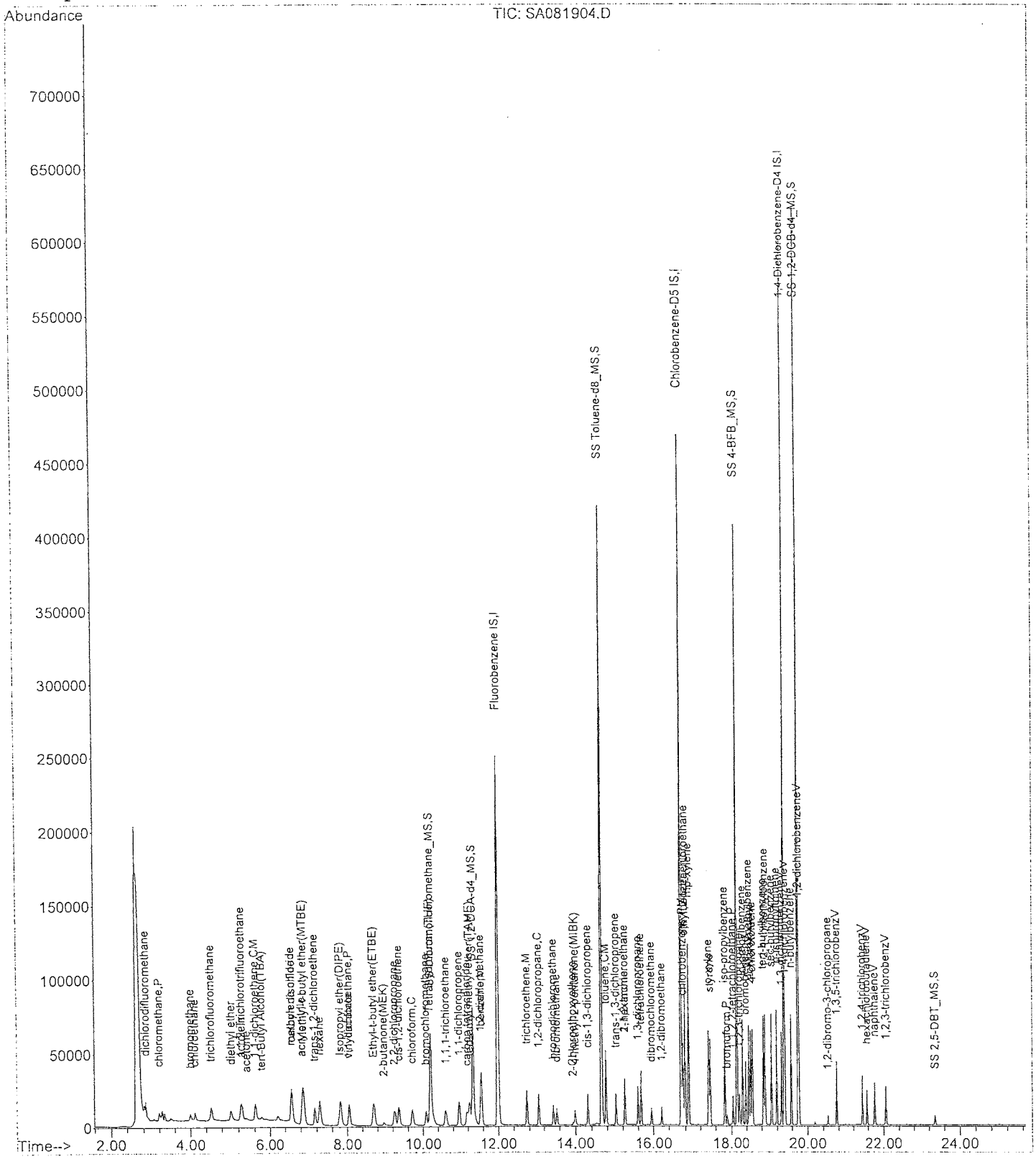
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	13328	1.301 ug/L	98
39)	trichloroethene	12.73	95	9969	1.267 ug/L	98
40)	1,2-dichloropropane	13.05	63	9198	1.196 ug/L	94
42)	dibromomethane	13.53	93	5241	1.148 ug/L	97
43)	bromodichloromethane	13.44	83	9783	1.075 ug/L	98
44)	2-Chloroethoxyethene	13.95	63	736	9.794 ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	3134	1.367 ug/L	92
46)	cis-1,3-dichloropropene	14.30	75	11883	2.652 ug/L	91
49)	toluene	14.77	91	42180	1.279 ug/L	99
50)	trans-1,3-dichloropropene	15.03	75	10719	2.286 ug/L	93
51)	1,1,2-trichloroethane	15.25	83	6360	1.216 ug/L	96
52)	2-hexanone	15.25	43	5641	1.570 ug/L	94
53)	tetrachloroethene	15.67	166	11126	1.259 ug/L	98
54)	1,3-dichloropropane	15.60	76	13608	1.212 ug/L	89
55)	dibromochloromethane	15.95	129	6051	3.054 ug/L #	97
56)	1,2-dibromoethane	16.22	107	7628	1.202 ug/L	100
57)	chlorobenzene	16.74	112	28347	1.243 ug/L	97
58)	1,1,1,2-tetrachloroethane	16.79	131	7835	1.106 ug/L #	74
59)	ethylbenzene	16.79	91	48153	1.313 ug/L	99
60)	mp-xylene	16.89	106	38052	2.556 ug/L	97
61)	o-xylene	17.41	106	17949	1.275 ug/L	96
62)	styrene	17.46	104	28616	1.203 ug/L	96
63)	bromoform	17.89	173	3143	3.473 ug/L	98
64)	iso-propylbenzene	17.83	105	42810	1.288 ug/L	98
67)	bromobenzene	18.38	156	11673	1.254 ug/L	96
68)	1,1,2,2-tetrachloroethane	18.04	83	8834	1.179 ug/L #	1
69)	1,2,3-trichloropropane	18.21	110	3033	1.292 ug/L	98
71)	n-propylbenzene	18.28	91	54448	1.315 ug/L	99
72)	2-chlorotoluene	18.51	91	34205	1.309 ug/L	99
73)	4-chlorotoluene	18.56	91	34795	1.322 ug/L	97
74)	1,3,5-trimethylbenzene	18.46	105	38409	1.318 ug/L	98
75)	tert-butylbenzene	18.84	119	34129	1.333 ug/L	96
76)	1,2,4-trimethylbenzene	18.89	105	39627	1.311 ug/L	99
77)	sec-butylbenzene	19.06	105	47759	1.318 ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	22296	1.275 ug/L	97
79)	p-isopropyltoluene	19.19	119	39947	1.301 ug/L	98
80)	1,4-dichlorobenzeneV	19.42	146	22414m	1.257 ug/L	
81)	1,2-dichlorobenzeneV	19.77	146	20836	1.258 ug/L #	33
82)	n-butylbenzene	19.58	91	33045	1.249 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	1237	3.871 ug/L	88
85)	1,3,5-trichlorobenzV	20.75	180	12414	1.234 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	10022	1.220 ug/L	97
87)	hexachlorobutadieneV	21.56	225	4402	1.120 ug/L	97
88)	naphthaleneV	21.76	128	24159	1.140 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	8796	1.237 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:18 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	319447	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249650	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	130715	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	75381	12.27 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.73%#		
35) SS 1,2-DCA-d4_MS	11.33	65	93786	13.06 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.58%#		
48) SS Toluene-d8_MS	14.65	98	318656	12.96 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.59%#		
65) SS 4-BFB_MS	18.13	95	123334	13.26 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.60%#		
83) SS 1,2-DCB-d4_MS	19.75	152	129791	12.60 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.03%#		
90) SS 2,5-DBT_MS	23.36	250	3717	6.74 ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 16.86%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	20603	2.368 ug/L	98
3) chloromethane	3.20	50	19547	2.173 ug/L	99
4) vinyl chloride	3.34	62	9660	Below Cal	99
5) bromomethane	4.00	94	8033	1.565 ug/L	94
6) chloroethane	4.12	64	11601	2.144 ug/L	97
7) trichlorofluoromethane	4.52	101	24102	2.111 ug/L	98
8) diethyl ether	5.02	59	12737	2.301 ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	17137	2.538 ug/L	99
10) acrolein	5.27	56	2139m	3.258 ug/L	
11) acetone	5.38	43	4673	2.692 ug/L	92
12) 1,1-dichloroethene	5.61	96	15933	2.247 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	7357	15.081 ug/L #	65
15) methylene chloride	6.55	84	19624	2.468 ug/L	99
16) carbon disulfide	6.57	76	51897	2.533 ug/L	96
17) acrylonitrile	6.82	53	7139	2.644 ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	88412	5.645 ug/L	95
19) trans-1,2-dichloroethene	7.15	96	17490	2.582 ug/L	97
20) hexane	7.28	57	26198	3.177 ug/L	95
21) Isopropyl ether(DIPE)	7.82	45	61129	2.933 ug/L	99
22) vinyl acetate	8.05	43	29146	2.570 ug/L	97
23) 1,1-dichloroethane	8.05	63	31798	2.536 ug/L #	98
24) Ethyl-t-butyl ether(ETBE)	8.70	59	53393	3.118 ug/L	97
25) 2,2-dichloropropane	9.25	77	23815	3.006 ug/L	98
26) cis-1,2-dichloroethene	9.36	61	25574	2.621 ug/L	99
27) 2-butanone(MEK)	8.96	43	7612	3.043 ug/L #	91
28) bromochloromethane	10.08	128	9132	2.470 ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	5556	3.434 ug/L	89
30) chloroform	9.71	83	31108	2.509 ug/L	99
32) 1,1,1-trichloroethane	10.60	97	25378	2.595 ug/L	98
33) carbon tetrachloride	11.17	117	19915	2.276 ug/L	98
34) 1,1-dichloropropene	10.97	75	25741	2.677 ug/L	95
36) tert-amyl methyl ether(TAM	11.24	73	45373	7.172 ug/L #	90
37) benzene	11.55	78	75148	2.493 ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

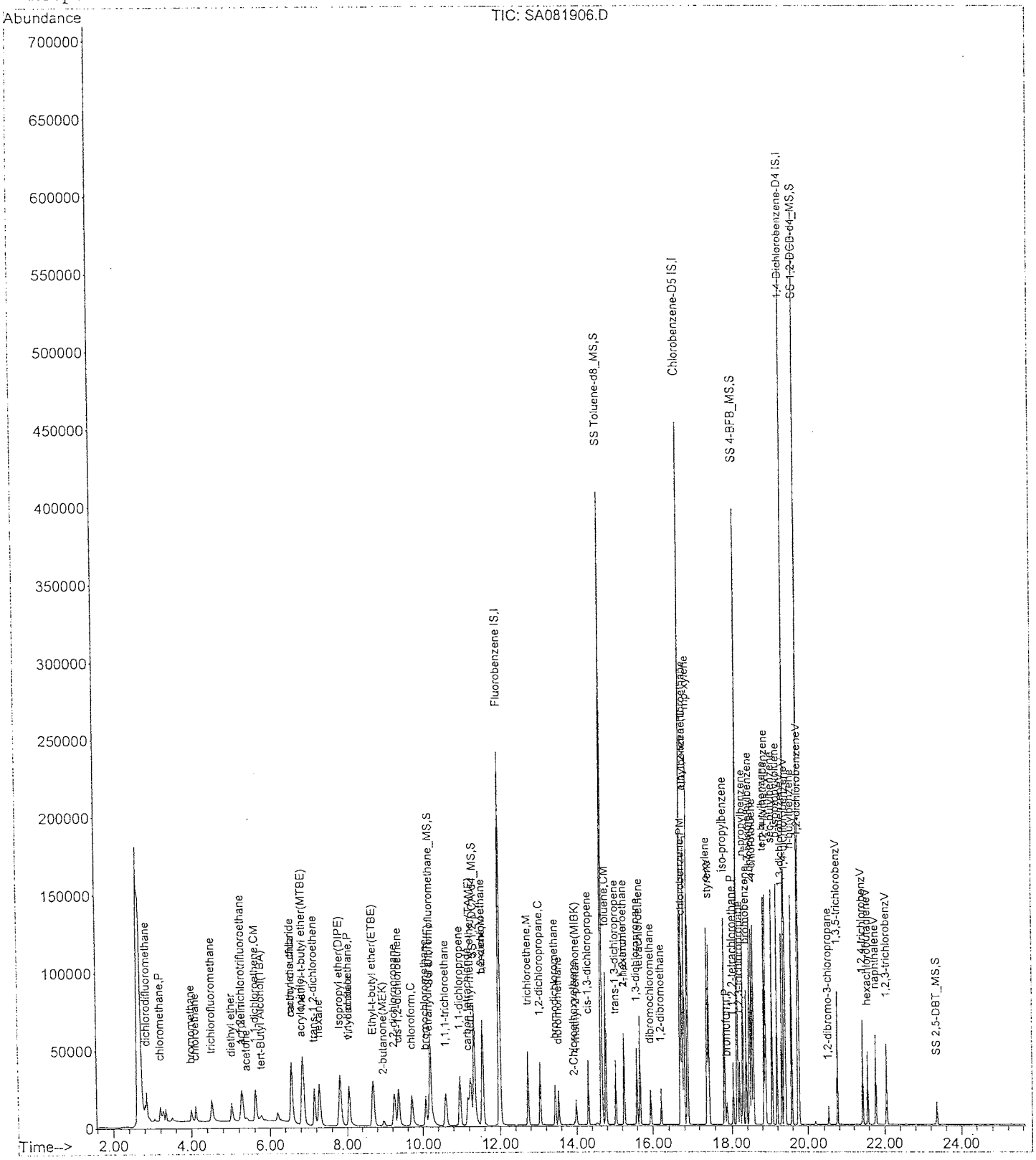
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	26250	2.655 ug/L	100
39) trichloroethene	12.73	95	18813	2.477 ug/L	97
40) 1,2-dichloropropane	13.05	63	17934	2.416 ug/L	95
42) dibromomethane	13.53	93	10335	2.346 ug/L	98
43) bromodichloromethane	13.44	83	19293	2.198 ug/L	99
44) 2-Chloroethoxyethene	13.95	63	860	9.946 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	5142	2.325 ug/L	93
46) cis-1,3-dichloropropene	14.30	75	23435	3.643 ug/L	94
49) toluene	14.77	91	81742	2.548 ug/L	99
50) trans-1,3-dichloropropene	15.03	75	20701	3.240 ug/L	93
51) 1,1,2-trichloroethane	15.25	83	12172	2.392 ug/L	97
52) 2-hexanone	15.25	43	9113	2.606 ug/L	93
53) tetrachloroethene	15.67	166	21366	2.484 ug/L	98
54) 1,3-dichloropropane	15.59	76	26443	2.420 ug/L	90
55) dibromochloromethane	15.95	129	12078	3.862 ug/L #	98
56) 1,2-dibromoethane	16.22	107	14844	2.404 ug/L	99
57) chlorobenzene	16.74	112	55032	2.481 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	15120	2.194 ug/L	99
59) ethylbenzene	16.79	91	93282	2.614 ug/L	99
60) mp-xylene	16.89	106	74104	5.116 ug/L	96
61) o-xylene	17.41	106	36012	2.630 ug/L	98
62) styrene	17.46	104	57490	2.483 ug/L	98
63) bromoform	17.88	173	6115	4.103 ug/L	96
64) iso-propylbenzene	17.83	105	85828	2.654 ug/L	99
67) bromobenzene	18.38	156	22626	2.518 ug/L	96
68) 1,1,2,2-tetrachloroethane	18.03	83	17355	2.399 ug/L #	1
69) 1,2,3-trichloropropane	18.21	110	5701	2.516 ug/L	98
71) n-propylbenzene	18.28	91	108302	2.710 ug/L	99
72) 2-chlorotoluene	18.51	91	67012	2.658 ug/L	98
73) 4-chlorotoluene	18.56	91	67613	2.663 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	75808	2.696 ug/L	98
75) tert-butylbenzene	18.84	119	67760	2.743 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	77341	2.652 ug/L	99
77) sec-butylbenzene	19.06	105	94866	2.713 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	44339	2.627 ug/L	98
79) p-isopropyltoluene	19.19	119	78820	2.660 ug/L	98
80) 1,4-dichlorobenzeneV	19.42	146	44318	2.575 ug/L	94
81) 1,2-dichlorobenzeneV	19.77	146	41371	2.588 ug/L #	93
82) n-butylbenzene	19.58	91	66590	2.608 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	2460	4.684 ug/L	94
85) 1,3,5-trichlorobenzV	20.75	180	24093	2.482 ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	19943	2.515 ug/L	96
87) hexachlorobutadieneV	21.56	225	8743	2.305 ug/L	96
88) naphthaleneV	21.76	128	47834	2.338 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	17026	2.482 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	320805	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	251289	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133403	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76274	12.37	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.66%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93843	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.11%#			
48) SS Toluene-d8_MS	14.65	98	317981	12.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.47%#			
65) SS 4-BFB_MS	18.13	95	125430	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.98%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133725	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	10510	9.19	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 22.98%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.86	85	52735	6.035	ug/L	98
3) chloromethane	3.19	50	48146	5.329	ug/L	99
4) vinyl chloride	3.34	62	23140	3.053	ug/L	98
5) bromomethane	4.00	94	20450	3.967	ug/L	99
6) chloroethane	4.12	64	29303	5.392	ug/L	98
7) trichlorofluoromethane	4.52	101	62572	5.458	ug/L	98
8) diethyl ether	5.02	59	32652	5.873	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.27	101	42573	6.277	ug/L	96
10) acrolein	5.27	56	4060	6.158	ug/L	94
11) acetone	5.38	43	10264	5.888	ug/L	99
12) 1,1-dichloroethene	5.61	96	36739	5.159	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	16528	33.736	ug/L #	80
15) methylene chloride	6.55	84	42886	5.371	ug/L	99
16) carbon disulfide	6.57	76	111777	5.432	ug/L	97
17) acrylonitrile	6.82	53	17825	6.573	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	216505	13.766	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	40969	6.023	ug/L	97
20) hexane	7.28	57	67117	8.104	ug/L	98
21) Isopropyl ether(DIPE)	7.82	45	143629	6.861	ug/L	98
22) vinyl acetate	8.06	43	72699	6.383	ug/L	98
23) 1,1-dichloroethane	8.05	63	75512	5.998	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	126117	7.334	ug/L	97
25) 2,2-dichloropropane	9.25	77	56793	7.138	ug/L	96
26) cis-1,2-dichloroethene	9.36	61	60826	6.209	ug/L	98
27) 2-butanone(MEK)	8.97	43	17834	7.100	ug/L	97
28) bromochloromethane	10.08	128	21282	5.733	ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	12622	7.768	ug/L	94
30) chloroform	9.71	83	72795	5.845	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	60406	6.150	ug/L	99
33) carbon tetrachloride	11.17	117	48262	5.492	ug/L	98
34) 1,1-dichloropropene	10.96	75	60041	6.218	ug/L	96
36) tert-amyl methyl ether(TAM	11.24	73	108618	10.516	ug/L #	90
37) benzene	11.56	78	176668	5.836	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

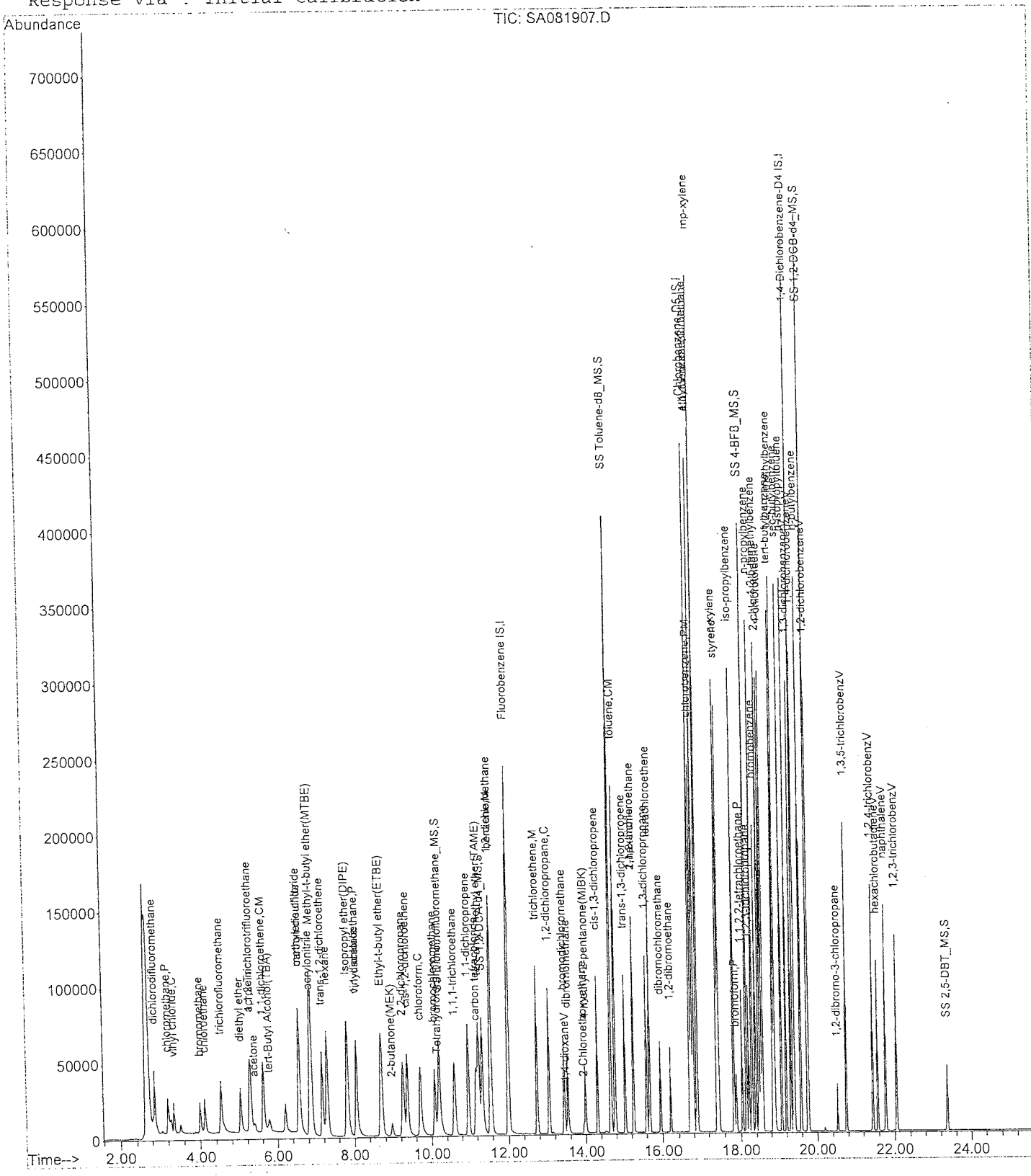
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	61309	6.175 ug/L	100
39) trichloroethene	12.73	95	45171	5.922 ug/L	98
40) 1,2-dichloropropane	13.05	63	43515	5.838 ug/L	97
41) 1,4-dioxaneV	13.48	88	846m	13.546 ug/L	
42) dibromomethane	13.53	93	24271	5.487 ug/L	97
43) bromodichloromethane	13.44	83	47407	5.377 ug/L	99
44) 2-Chloroethoxyethene	13.95	63	3104	12.179 ug/L #	43
45) 4-methyl-2-pentanone(MIBK)	13.99	58	13485	6.071 ug/L	93
46) cis-1,3-dichloropropene	14.30	75	58094	6.490 ug/L	94
49) toluene	14.77	91	191504	5.931 ug/L	99
50) trans-1,3-dichloropropene	15.03	75	52570	6.168 ug/L	95
51) 1,1,2-trichloroethane	15.25	83	29245	5.711 ug/L	98
52) 2-hexanone	15.25	43	24389	6.929 ug/L	95
53) tetrachloroethene	15.67	166	50144	5.792 ug/L	98
54) 1,3-dichloropropane	15.60	76	62562	5.689 ug/L	93
55) dibromochloromethane	15.95	129	31928	6.426 ug/L #	99
56) 1,2-dibromoethane	16.22	107	35917	5.778 ug/L	100
57) chlorobenzene	16.74	112	130184	5.831 ug/L	98
58) 1,1,1,2-tetrachloroethane	16.79	131	38004	5.480 ug/L	99
59) ethylbenzene	16.79	91	219934	6.123 ug/L	99
60) mp-xylene	16.89	106	177354	12.164 ug/L	98
61) o-xylene	17.41	106	84117	6.102 ug/L	96
62) styrene	17.46	104	139333	5.980 ug/L	98
63) bromoform	17.89	173	16642	6.250 ug/L	97
64) iso-propylbenzene	17.83	105	203714	6.259 ug/L	99
67) bromobenzene	18.38	156	53742	5.860 ug/L	96
68) 1,1,2,2-tetrachloroethane	18.03	83	41833	5.666 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	13604	5.884 ug/L	99
71) n-propylbenzene	18.28	91	258877	6.348 ug/L	99
72) 2-chlorotoluene	18.51	91	159436	6.196 ug/L	98
73) 4-chlorotoluene	18.56	91	161678	6.239 ug/L	98
74) 1,3,5-trimethylbenzene	18.46	105	182407	6.355 ug/L	99
75) tert-butylbenzene	18.84	119	161039	6.387 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	188944	6.348 ug/L	99
77) sec-butylbenzene	19.06	105	226722	6.354 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	104856	6.088 ug/L	98
79) p-isopropyltoluene	19.19	119	193097	6.385 ug/L	98
80) 1,4-dichlorobenzeneV	19.42	146	105039	5.981 ug/L	97
81) 1,2-dichlorobenzeneV	19.78	146	97597	5.983 ug/L #	88
82) n-butylbenzene	19.58	91	162983	6.256 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	6339	7.094 ug/L	93
85) 1,3,5-trichlorobenzV	20.75	180	58265	5.880 ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	48079	5.941 ug/L	97
87) hexachlorobutadieneV	21.56	225	20536	5.305 ug/L	94
88) naphthaleneV	21.76	128	121958	5.842 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	41777	5.967 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329680	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	257906	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139765	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78654	12.41	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.09%#			
35) SS 1,2-DCA-d4_MS	11.33	65	95691	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
48) SS Toluene-d8_MS	14.65	98	327525	12.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.94%#			
65) SS 4-BFB_MS	18.13	95	128857	13.41	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.11%#			
83) SS 1,2-DCB-d4_MS	19.75	152	138658	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
90) SS 2,5-DBT_MS	23.36	250	25727	14.32	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 35.79%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	103983	11.580	ug/L	99
3) chloromethane	3.19	50	91726	9.879	ug/L	100
4) vinyl chloride	3.34	62	44632	8.999	ug/L	100
5) bromomethane	3.99	94	45838	8.653	ug/L	99
6) chloroethane	4.11	64	57305	10.260	ug/L	98
7) trichlorofluoromethane	4.52	101	123630	10.494	ug/L	99
8) diethyl ether	5.02	59	64977	11.374	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	84181	12.078	ug/L	96
10) acrolein	5.27	56	7273	10.735	ug/L	96
11) acetone	5.39	43	20604	11.501	ug/L	98
12) 1,1-dichloroethene	5.61	96	78878	10.778	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	34099	67.728	ug/L #	82
15) methylene chloride	6.55	84	87611	10.676	ug/L	100
16) carbon disulfide	6.57	76	233920	11.062	ug/L	100
17) acrylonitrile	6.82	53	36171	12.980	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	451396	27.928	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	87734	12.551	ug/L	98
20) hexane	7.28	57	129654	15.233	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	305985	14.224	ug/L	98
22) vinyl acetate	8.05	43	142119	12.142	ug/L	98
23) 1,1-dichloroethane	8.05	63	162892	12.590	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	269357	15.242	ug/L	96
25) 2,2-dichloropropane	9.25	77	119382	14.601	ug/L	95
26) cis-1,2-dichloroethene	9.36	61	127369	12.651	ug/L	99
27) 2-butanone(MEK)	8.96	43	35397	13.713	ug/L	98
28) bromochloromethane	10.08	128	46322	12.141	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	24632	14.751	ug/L	96
30) chloroform	9.71	83	155938	12.185	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	129263	12.807	ug/L	98
33) carbon tetrachloride	11.17	117	108911	12.061	ug/L	99
34) 1,1-dichloropropene	10.96	75	127800	12.878	ug/L	97
36) tert-amyl methyl ether(TAM	11.24	73	232612	16.759	ug/L #	90
37) benzene	11.55	78	373237	11.998	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081908.D 5VID0819.M Fri Aug 23 12:53:17 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

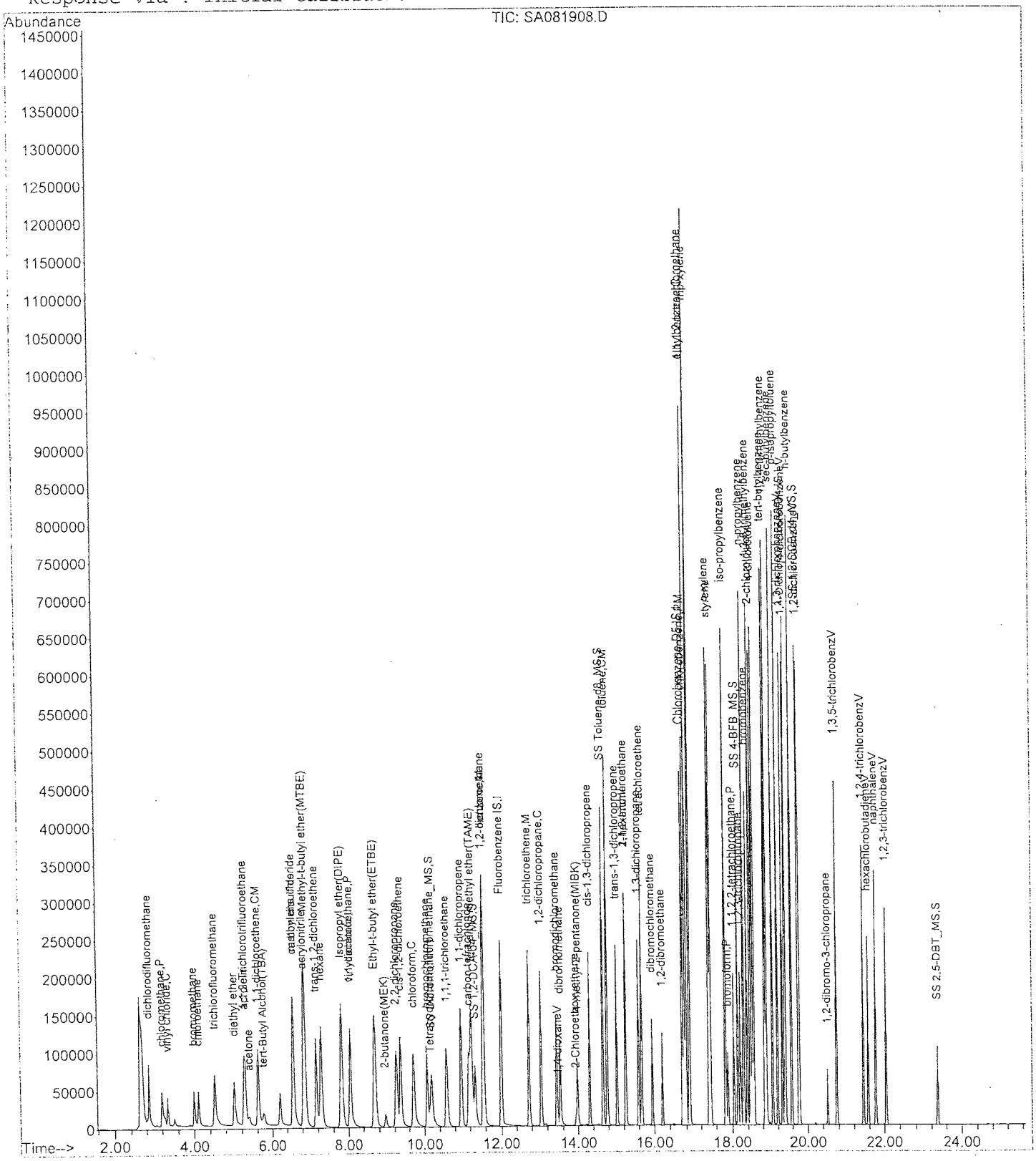
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38) 1,2-dichloroethane	11.53	62	129205	12.664	ug/L		99
39) trichloroethene	12.73	95	96961	12.370	ug/L		99
40) 1,2-dichloropropane	13.05	63	92382	12.060	ug/L		98
41) 1,4-dioxaneV	13.48	88	1968m	30.662	ug/L		
42) dibromomethane	13.53	93	52221	11.488	ug/L		97
43) bromodichloromethane	13.44	83	107082	11.819	ug/L		99
44) 2-Chloroethoxyethene	13.94	63	6324	15.143	ug/L	#	39
45) 4-methyl-2-pentanone(MIBK)	13.99	58	28342	12.415	ug/L		96
46) cis-1,3-dichloropropene	14.30	75	129780	12.108	ug/L		95
49) toluene	14.77	91	410451	12.385	ug/L		100
50) trans-1,3-dichloropropene	15.03	75	120388	12.140	ug/L		97
51) 1,1,2-trichloroethane	15.25	83	63183	12.021	ug/L		98
52) 2-hexanone	15.25	43	49786	13.782	ug/L		98
53) tetrachloroethene	15.67	166	106655	12.004	ug/L		98
54) 1,3-dichloropropane	15.60	76	135583	12.013	ug/L		94
55) dibromochloromethane	15.95	129	74599	11.713	ug/L	#	100
56) 1,2-dibromoethane	16.22	107	78816	12.354	ug/L		99
57) chlorobenzene	16.74	112	277043	12.090	ug/L		97
58) 1,1,1,2-tetrachloroethane	16.79	131	86783	12.192	ug/L		99
59) ethylbenzene	16.79	91	472657	12.821	ug/L		99
60) mp-xylene	16.89	106	380544	25.430	ug/L		98
61) o-xylene	17.41	106	183867	12.996	ug/L		98
62) styrene	17.46	104	305435	12.772	ug/L		98
63) bromoform	17.89	173	40886	10.998	ug/L		98
64) iso-propylbenzene	17.83	105	440848	13.197	ug/L		99
67) bromobenzene	18.38	156	118350	12.317	ug/L		97
68) 1,1,2,2-tetrachloroethane	18.04	83	92315	11.935	ug/L		99
69) 1,2,3-trichloropropane	18.21	110	29775	12.292	ug/L		99
71) n-propylbenzene	18.28	91	559856	13.103	ug/L		99
72) 2-chlorotoluene	18.51	91	340614	12.635	ug/L		99
73) 4-chlorotoluene	18.56	91	348025	12.818	ug/L		99
74) 1,3,5-trimethylbenzene	18.46	105	398336	13.247	ug/L		99
75) tert-butylbenzene	18.84	119	350839	13.281	ug/L		97
76) 1,2,4-trimethylbenzene	18.89	105	411467	13.194	ug/L		99
77) sec-butylbenzene	19.06	105	495753	13.260	ug/L		99
78) 1,3-dichlorobenzeneV	19.32	146	229470	12.718	ug/L		99
79) p-isopropyltoluene	19.19	119	426581	13.464	ug/L		99
80) 1,4-dichlorobenzeneV	19.42	146	228211	12.402	ug/L		96
81) 1,2-dichlorobenzeneV	19.78	146	212093	12.409	ug/L	#	95
82) n-butylbenzene	19.58	91	360458	13.205	ug/L		99
84) 1,2-dibromo-3-chloropropan	20.52	157	15958	12.693	ug/L		96
85) 1,3,5-trichlorobenzV	20.75	180	129782	12.502	ug/L		97
86) 1,2,4-trichlorobenzV	21.44	180	109868	12.958	ug/L		98
87) hexachlorobutadieneV	21.56	225	46830	11.546	ug/L		98
88) naphthaleneV	21.76	128	281673	12.878	ug/L		100
89) 1,2,3-trichlorobenzV	22.05	180	92922	12.667	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331394	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	262215	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	141362	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79273	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.42%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93143	12.50	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.01%#			
48) SS Toluene-d8_MS	14.66	98	333434	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
65) SS 4-BFB_MS	18.13	95	131321	13.44	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.43%#			
83) SS 1,2-DCB-d4_MS	19.75	152	141700	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	57521	25.16	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 62.90%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	194683	21.569	ug/L	99
3) chloromethane	3.19	50	172058	18.434	ug/L	100
4) vinyl chloride	3.34	62	80711	19.168	ug/L	99
5) bromomethane	3.99	94	93850	17.624	ug/L	99
6) chloroethane	4.11	64	109554	19.514	ug/L	99
7) trichlorofluoromethane	4.52	101	236579	19.977	ug/L	99
8) diethyl ether	5.02	59	124100	21.610	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162837	23.243	ug/L	96
10) acrolein	5.27	56	13820	20.293	ug/L	93
11) acetone	5.39	43	38187	21.205	ug/L	94
12) 1,1-dichloroethene	5.61	96	161233	21.917	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	68924	136.190	ug/L #	81
15) methylene chloride	6.55	84	176392	21.383	ug/L	99
16) carbon disulfide	6.57	76	481336	22.645	ug/L	98
17) acrylonitrile	6.81	53	68378	24.411	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	881551	54.260	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	180020	25.621	ug/L	98
20) hexane	7.28	57	259325	30.310	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	625967	28.948	ug/L	98
22) vinyl acetate	8.05	43	313110	26.613	ug/L	98
23) 1,1-dichloroethane	8.05	63	333509	25.643	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	547829	30.840	ug/L #	96
25) 2,2-dichloropropane	9.25	77	260109	31.648	ug/L	94
26) cis-1,2-dichloroethene	9.36	61	262646	25.952	ug/L	98
27) 2-butanone(MEK)	8.96	43	66318	25.559	ug/L	98
28) bromochloromethane	10.08	128	93545	24.392	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	46286	27.576	ug/L	95
30) chloroform	9.71	83	317565	24.686	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	268761	26.490	ug/L	98
33) carbon tetrachloride	11.17	117	231829	25.540	ug/L	99
34) 1,1-dichloropropene	10.96	75	264778	26.543	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	476650	29.225	ug/L #	89
37) benzene	11.55	78	762700	24.390	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

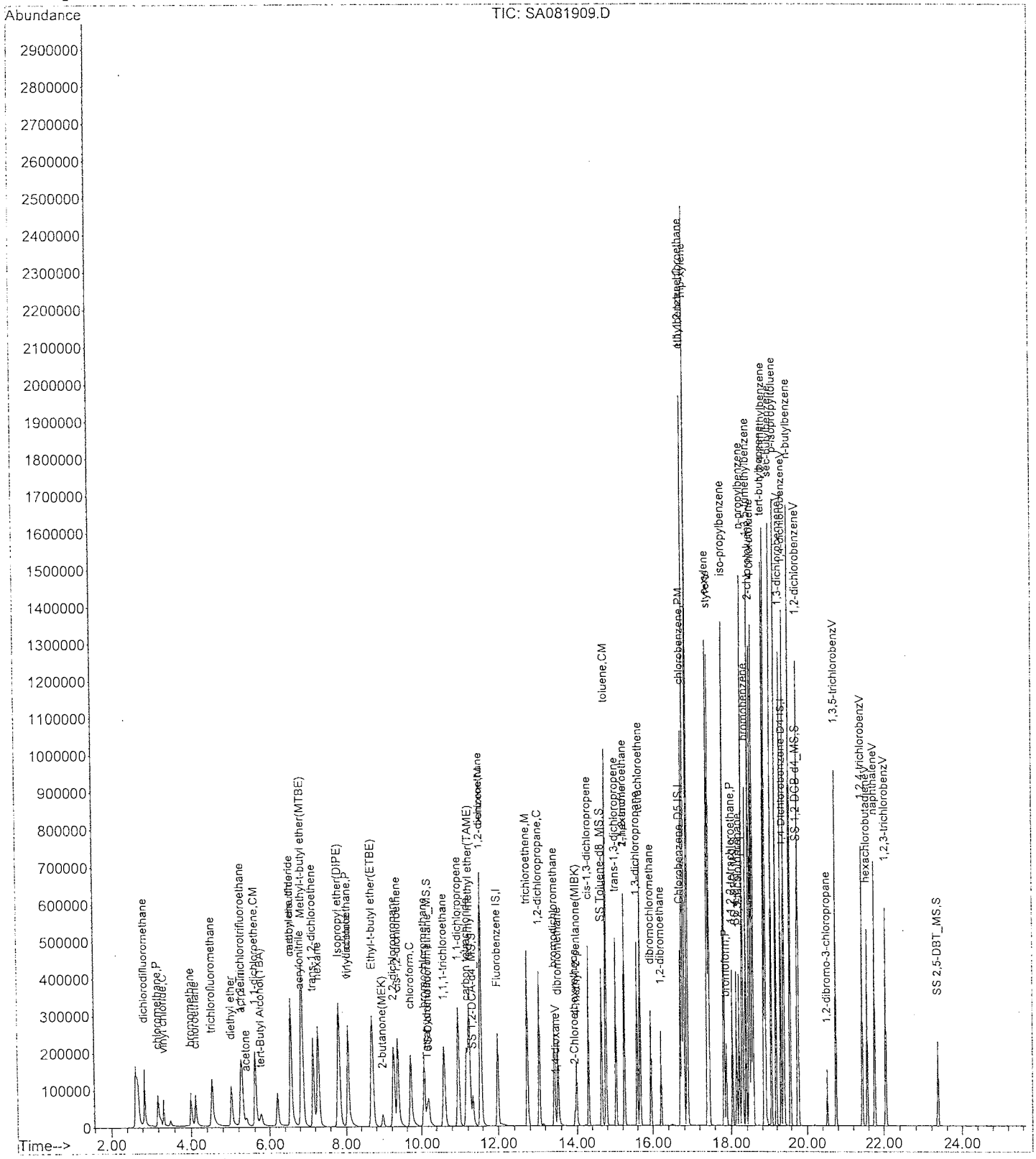
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	259670	25.320 ug/L	99
39) trichloroethene	12.73	95	194776	24.721 ug/L	99
40) 1,2-dichloropropane	13.05	63	190971	24.800 ug/L	99
41) 1,4-dioxaneV	13.48	88	3928	60.883 ug/L #	95
42) dibromomethane	13.53	93	106873	23.390 ug/L	98
43) bromodichloromethane	13.44	83	226478	24.868 ug/L	100
44) 2-Chloroethoxyethene	13.95	63	17614	25.124 ug/L	83
45) 4-methyl-2-pentanone(MIBK)	13.99	58	54532	23.765 ug/L	94
46) cis-1,3-dichloropropene	14.30	75	277015	23.797 ug/L	97
49) toluene	14.77	91	844209	25.055 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	261053	24.399 ug/L	98
51) 1,1,2-trichloroethane	15.25	83	128699	24.083 ug/L	98
52) 2-hexanone	15.25	43	95466	25.993 ug/L	98
53) tetrachloroethene	15.67	166	219087	24.254 ug/L	98
54) 1,3-dichloropropane	15.60	76	275697	24.026 ug/L	95
55) dibromochloromethane	15.95	129	166130	22.936 ug/L #	100
56) 1,2-dibromoethane	16.22	107	163336	25.182 ug/L	99
57) chlorobenzene	16.74	112	574991	24.679 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	183999	25.425 ug/L	100
59) ethylbenzene	16.79	91	975608	26.028 ug/L	99
60) mp-xylene	16.89	106	783338	51.486 ug/L	98
61) o-xylene	17.41	106	380027	26.420 ug/L	98
62) styrene	17.46	104	640234	26.331 ug/L	99
63) bromoform	17.89	173	95889	21.653 ug/L	99
64) iso-propylbenzene	17.83	105	917040	27.000 ug/L	100
67) bromobenzene	18.38	156	243213	25.026 ug/L	98
68) 1,1,2,2-tetrachloroethane	18.04	83	195871	25.037 ug/L	100
69) 1,2,3-trichloropropane	18.21	110	60559	24.718 ug/L	99
71) n-propylbenzene	18.28	91	1162564	26.902 ug/L	100
72) 2-chlorotoluene	18.51	91	701060	25.711 ug/L	99
73) 4-chlorotoluene	18.56	91	714685	26.025 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	818531	26.913 ug/L	99
75) tert-butylbenzene	18.84	119	723532	27.080 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	842876	26.723 ug/L	99
77) sec-butylbenzene	19.06	105	1021831	27.023 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	475266	26.042 ug/L	100
79) p-isopropyltoluene	19.19	119	887637	27.700 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	472725	25.400 ug/L	99
81) 1,2-dichlorobenzeneV	19.78	146	439455	25.422 ug/L	99
82) n-butylbenzene	19.58	91	755022	27.347 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	35245	24.044 ug/L	97
85) 1,3,5-trichlorobenzV	20.75	180	273191	26.019 ug/L	98
86) 1,2,4-trichlorobenzV	21.44	180	228467	26.642 ug/L	99
87) hexachlorobutadieneV	21.56	225	99180	24.177 ug/L	97
88) naphthaleneV	21.76	128	592008	26.760 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	196079	26.428 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335931	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266092	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145060	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80333	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.38%#			
35) SS 1,2-DCA-d4_MS	11.33	65	92083	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.65	98	334568	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.66%#			
65) SS 4-BFB_MS	18.13	95	132879	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.04%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145066	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.93%#			
90) SS 2,5-DBT_MS	23.36	250	168625	61.92	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 154.81%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	404367	54.224	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	179792	350.461	ug/L #	81
15) methylene chloride	6.55	84	437281	52.294	ug/L	98
16) carbon disulfide	6.57	76	1230241	57.097	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	461213	64.753	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	1609210	73.412	ug/L	97
23) 1,1-dichloroethane	8.04	63	845028	64.096	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	1416425	78.659	ug/L #	96
25) 2,2-dichloropropane	9.25	77	662748	79.549	ug/L	92
26) cis-1,2-dichloroethene	9.36	61	669164	65.227	ug/L	99
28) bromochloromethane	10.08	128	245669	63.194	ug/L	100
30) chloroform	9.71	83	811929	62.262	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	694283	67.508	ug/L	98
33) carbon tetrachloride	11.17	117	616174	66.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	674265	66.679	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	1249604	68.040	ug/L #	89
37) benzene	11.55	78	1949369	61.496	ug/L	99
38) 1,2-dichloroethane	11.54	62	655023	63.007	ug/L	99
39) trichloroethene	12.73	95	503338	63.021	ug/L	99
40) 1,2-dichloropropane	13.05	63	492015	63.032	ug/L	99
42) dibromomethane	13.53	93	281102	60.690	ug/L	97
43) bromodichloromethane	13.44	83	610134	66.090	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	735714	59.589	ug/L	98
49) toluene	14.77	91	2153729	62.989	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	705358	62.775	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	334663	61.713	ug/L	99
53) tetrachloroethene	15.67	166	568485	62.017	ug/L	97
54) 1,3-dichloropropane	15.60	76	712001	61.143	ug/L	96
55) dibromochloromethane	15.95	129	463357	59.045	ug/L #	99
56) 1,2-dibromoethane	16.22	107	430648	65.427	ug/L	100
57) chlorobenzene	16.74	112	1464220	61.931	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	484658	65.993	ug/L	99
59) ethylbenzene	16.79	91	2458719	64.641	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081910.D 5VID0819.M Fri Aug 23 12:53:34 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

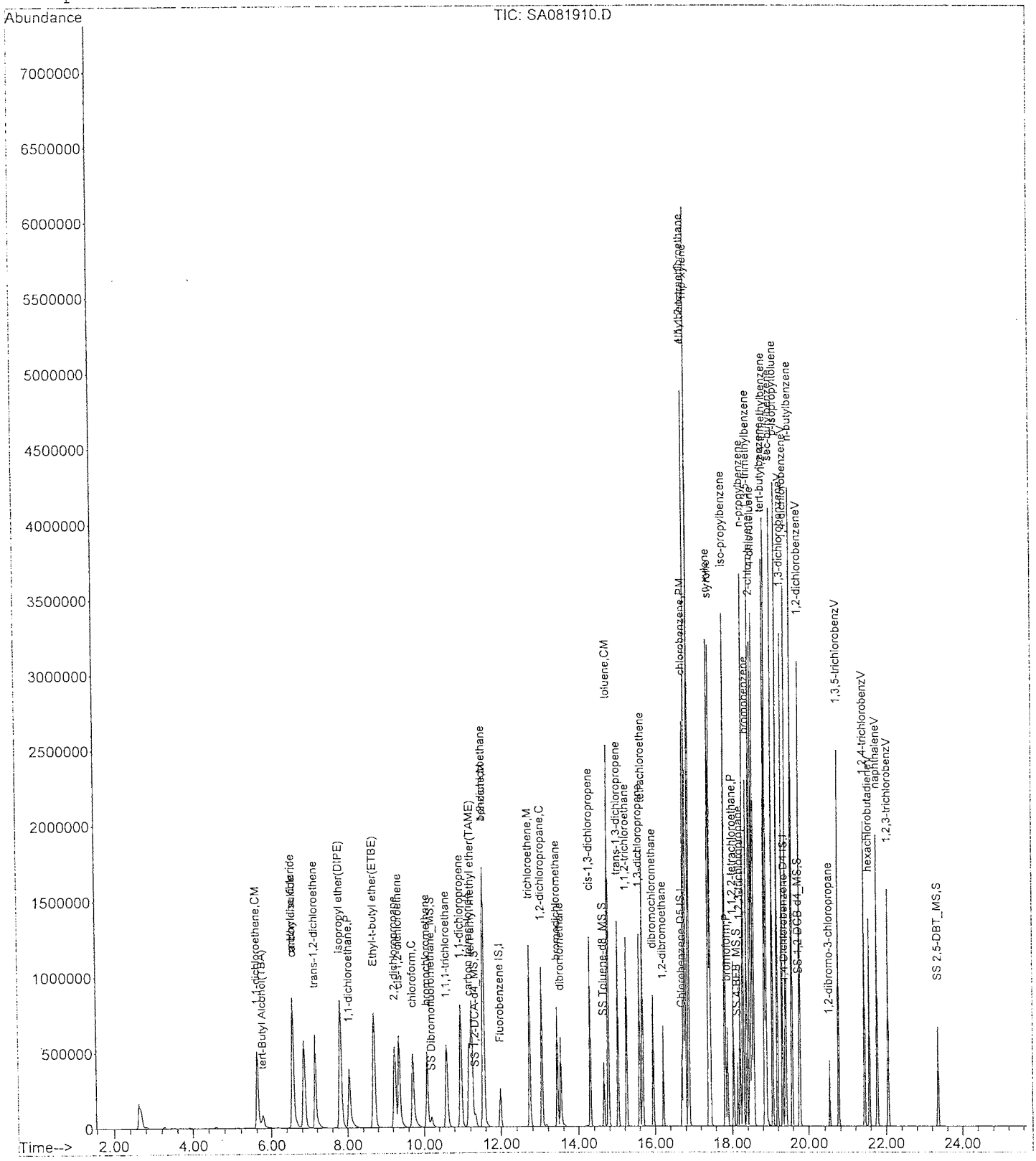
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60)	mp-xylene	16.89	106	1969523	127.564	ug/L	99
61)	o-xylene	17.41	106	976890	66.924	ug/L	99
62)	styrene	17.46	104	1639183	66.433	ug/L	99
63)	bromoform	17.89	173	284834	57.904	ug/L	99
64)	iso-propylbenzene	17.83	105	2327255	67.523	ug/L	99
67)	bromobenzene	18.38	156	631462	63.320	ug/L	100
68)	1,1,2,2-tetrachloroethane	18.04	83	515825	64.253	ug/L	99
69)	1,2,3-trichloropropane	18.21	110	160290	63.755	ug/L	98
71)	n-propylbenzene	18.29	91	2946454	66.444	ug/L	99
72)	2-chlorotoluene	18.51	91	1769997	63.260	ug/L	99
73)	4-chlorotoluene	18.56	91	1815730	64.434	ug/L	100
74)	1,3,5-trimethylbenzene	18.46	105	2098777	67.249	ug/L	100
75)	tert-butylbenzene	18.84	119	1841012	67.148	ug/L	98
76)	1,2,4-trimethylbenzene	18.89	105	2149505	66.411	ug/L	99
77)	sec-butylbenzene	19.06	105	2621616	67.563	ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	1227456	65.545	ug/L	100
79)	p-isopropyltoluene	19.19	119	2264722	68.872	ug/L	99
80)	1,4-dichlorobenzeneV	19.42	146	1224592	64.122	ug/L	97
81)	1,2-dichlorobenzeneV	19.78	146	1142498	64.407	ug/L	97
82)	n-butylbenzene	19.58	91	1932849	68.224	ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	103649	63.117	ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	723845	67.184	ug/L	99
86)	1,2,4-trichlorobenzV	21.44	180	618016	70.231	ug/L	98
87)	hexachlorobutadieneV	21.56	225	264933	62.936	ug/L	98
88)	naphthaleneV	21.76	128	1614517	71.120	ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	527857	69.332	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:48 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:49:27 2013 Quant Results File: 5VID0819.RES

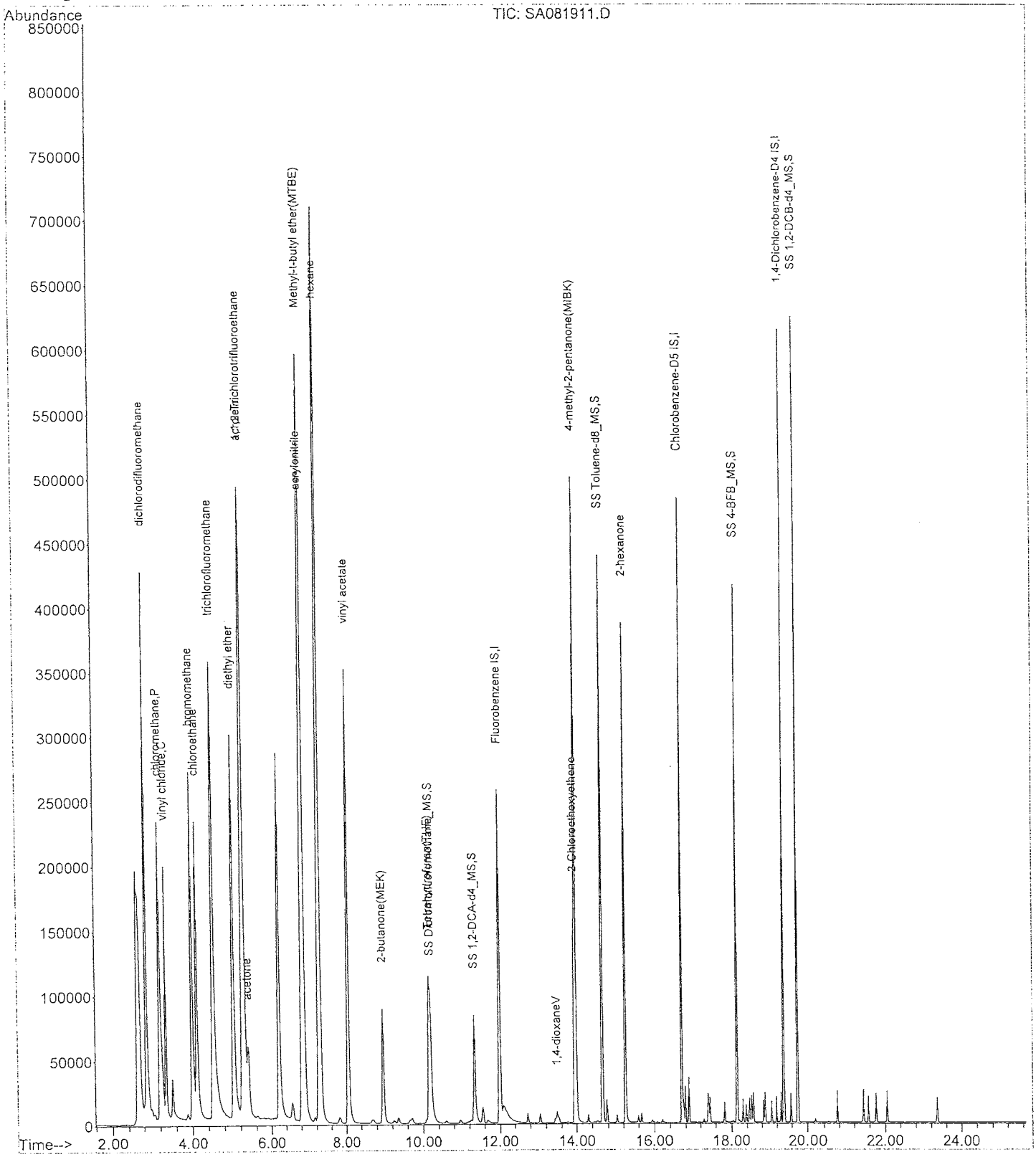
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	339880	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264197	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137469	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80106	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.58%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98674	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.13%#			
48) SS Toluene-d8_MS	14.65	98	339243	13.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.37%#			
65) SS 4-BFB_MS	18.13	95	130822	13.29	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.91%#			
83) SS 1,2-DCB-d4_MS	19.75	152	137890	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	536684	57.975	ug/L	99
3) chloromethane	3.19	50	467373	48.825	ug/L	100
4) vinyl chloride	3.34	62	223715	58.149	ug/L	99
5) bromomethane	3.99	94	285806	52.332	ug/L	99
6) chloroethane	4.11	64	305322	53.027	ug/L	98
7) trichlorofluoromethane	4.52	101	654087	53.854	ug/L	100
8) diethyl ether	5.02	59	339800	57.693	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	444771	61.901	ug/L	96
10) acrolein	5.27	56	34215	48.986	ug/L	99
11) acetone	5.39	43	102610	55.557	ug/L	94
17) acrylonitrile	6.82	53	179793	62.583	ug/L	92
18) Methyl-t-butyl ether(MTBE)	6.85	73	1170515	70.247	ug/L	96
20) hexane	7.28	57	714260	81.398	ug/L	99
22) vinyl acetate	8.05	43	882898	73.168	ug/L	98
27) 2-butanone(MEK)	8.96	43	186374	70.034	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	126802	73.659	ug/L	99
41) 1,4-dioxaneV	13.48	88	8590	129.819	ug/L #	73
44) 2-Chloroethoxyethene	13.95	63	69776	62.078	ug/L #	34
45) 4-methyl-2-pentanone(MIBK)	13.98	58	156553	66.521	ug/L	93
52) 2-hexanone	15.25	43	264972	71.605	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	353825	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282298	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	152949	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	85350	12.55	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.46%#			
35) SS 1,2-DCA-d4_MS	11.34	65	94152	11.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 118.36%			
48) SS Toluene-d8_MS	14.66	98	358167	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.82%#			
65) SS 4-BFB_MS	18.13	95	141281	13.43	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.33%#			
83) SS 1,2-DCB-d4_MS	19.75	152	154664	12.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.35%#			
90) SS 2,5-DBT_MS	23.36	250	352397	117.47	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 293.68%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	798847	101.704	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	355261	657.474	ug/L #	80
15) methylene chloride	6.55	84	850186	96.531	ug/L	98
16) carbon disulfide	6.57	76	2482263	109.378	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	920269	122.670	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	3172223	137.398	ug/L	97
23) 1,1-dichloroethane	8.04	63	1684741	121.326	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	2805631	147.928	ug/L #	96
25) 2,2-dichloropropane	9.24	77	1282370	146.138	ug/L	91
26) cis-1,2-dichloroethene	9.36	61	1322120	122.356	ug/L	100
28) bromochloromethane	10.08	128	491792	120.107	ug/L	99
30) chloroform	9.71	83	1615352	117.607	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	1388303	128.163	ug/L	98
33) carbon tetrachloride	11.17	117	1249650	128.945	ug/L	100
34) 1,1-dichloropropene	10.96	75	1344519	126.238	ug/L	100
36) tert-amyl methyl ether(TAM	11.24	73	2507528	125.323	ug/L #	89
37) benzene	11.56	78	3851284	115.350	ug/L	100
38) 1,2-dichloroethane	11.54	62	1269827	115.967	ug/L	99
39) trichloroethene	12.73	95	1012659	120.379	ug/L	99
40) 1,2-dichloropropane	13.05	63	981918	119.433	ug/L	98
42) dibromomethane	13.53	93	565072	115.829	ug/L	97
43) bromodichloromethane	13.44	83	1230530	126.551	ug/L	100
46) cis-1,3-dichloropropene	14.30	75	1482469	112.444	ug/L	99
49) toluene	14.77	91	4211772	116.108	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	1416003	117.611	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	670993	116.630	ug/L	99
53) tetrachloroethene	15.67	166	1142360	117.467	ug/L	96
54) 1,3-dichloropropane	15.60	76	1412274	114.317	ug/L	98
55) dibromochloromethane	15.95	129	962973	113.474	ug/L #	100
56) 1,2-dibromoethane	16.22	107	868314	124.347	ug/L	99
57) chlorobenzene	16.74	112	2877344	114.714	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	950257	121.963	ug/L	99
59) ethylbenzene	16.79	91	4650465	115.244	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

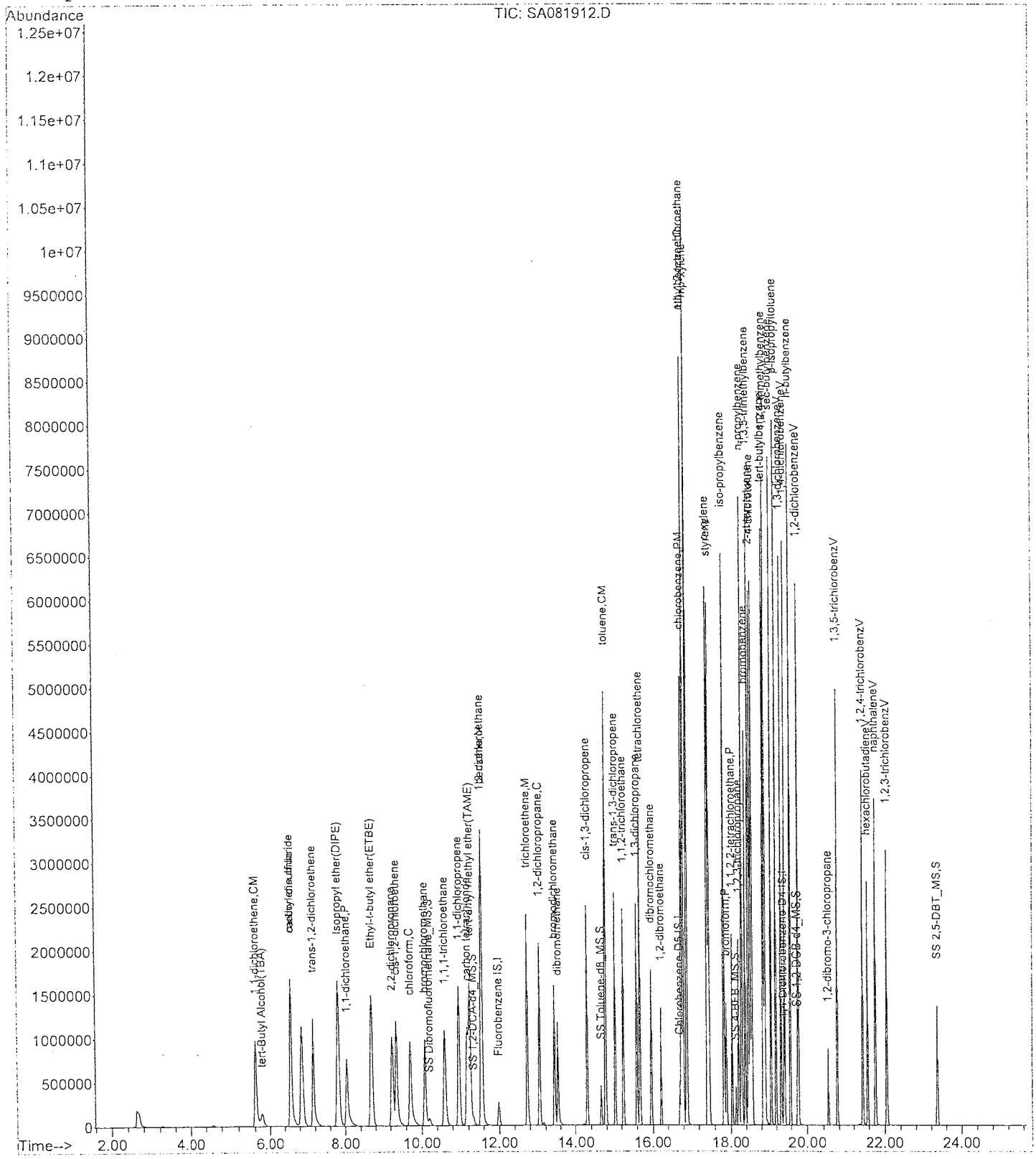
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.89	106	3612368	220.538	ug/L	100
61) o-xylene	17.42	106	1899543	122.662	ug/L	99
62) styrene	17.46	104	3197383	122.145	ug/L	99
63) bromoform	17.89	173	605915	113.249	ug/L	99
64) iso-propylbenzene	17.83	105	4489644	122.785	ug/L	99
67) bromobenzene	18.38	156	1256098	119.458	ug/L	99
68) 1,1,2,2-tetrachloroethane	18.04	83	1018500	120.324	ug/L	99
69) 1,2,3-trichloropropane	18.21	110	317030	119.595	ug/L	98
71) n-propylbenzene	18.29	91	5661535	121.085	ug/L	98
72) 2-chlorotoluene	18.52	91	3508936	118.941	ug/L	100
73) 4-chlorotoluene	18.56	91	3397503	114.346	ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	4047113	122.989	ug/L	100
75) tert-butylbenzene	18.85	119	3540878	122.486	ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	4082099	119.614	ug/L	99
77) sec-butylbenzene	19.06	105	4997923	122.160	ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	2402007	121.648	ug/L	99
79) p-isopropyltoluene	19.19	119	4286623	123.635	ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	2394949	118.935	ug/L	96
81) 1,2-dichlorobenzeneV	19.78	146	2232663	119.371	ug/L	96
82) n-butylbenzene	19.58	91	3684328	123.339	ug/L	98
84) 1,2-dibromo-3-chloropropan	20.52	157	217589	122.591	ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	1460642	128.577	ug/L	98
86) 1,2,4-trichlorobenzV	21.44	180	1245911	134.281	ug/L	98
87) hexachlorobutadieneV	21.56	225	539972	121.657	ug/L	98
88) naphthaleneV	21.76	128	3216106	134.363	ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	1068249	133.073	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:51 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:52:33 2013 Quant Results File: 5VID0819.RES

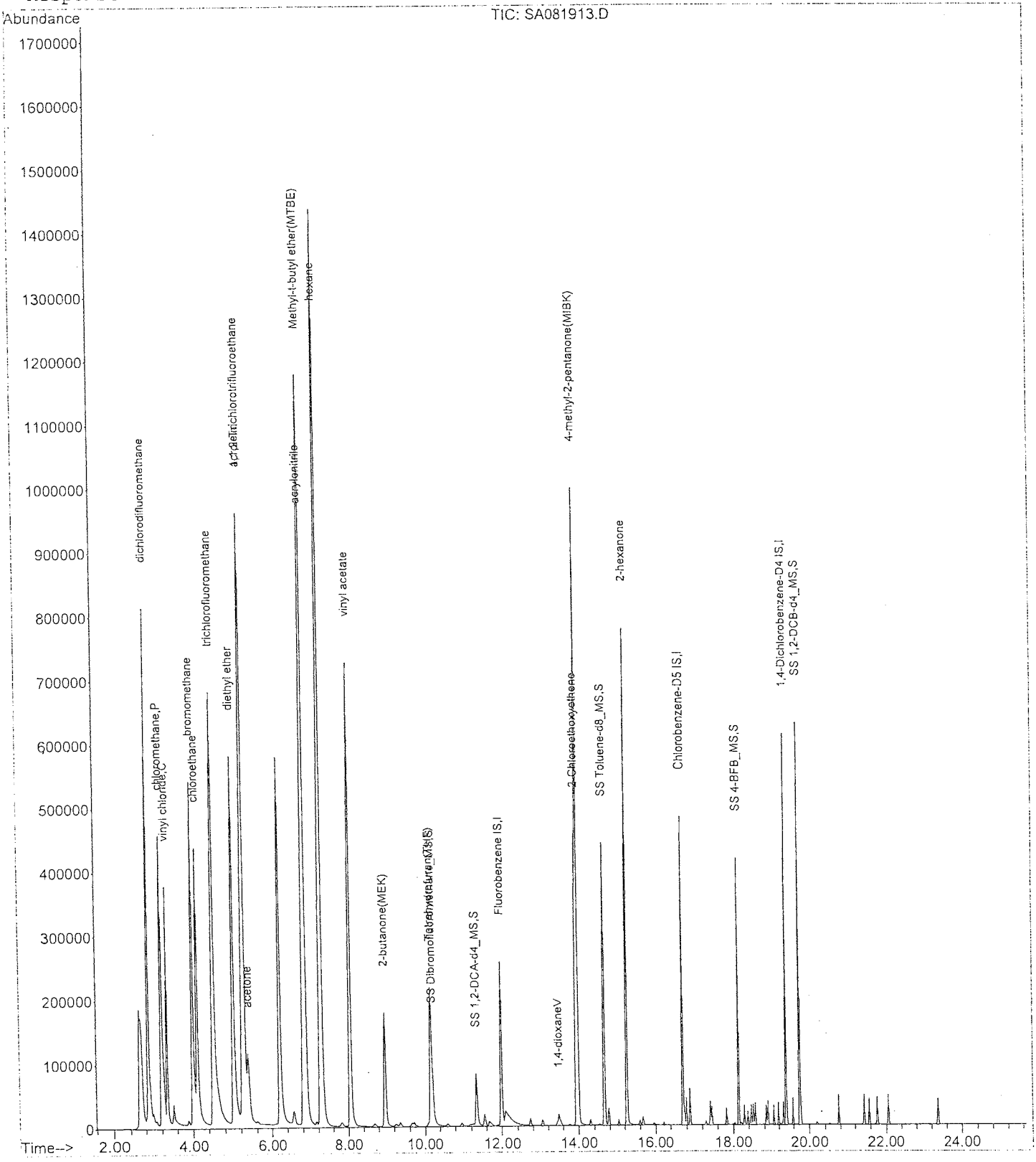
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	340007	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266108	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139054	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80456	12.31	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.07%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98415	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.74%#			
48) SS Toluene-d8_MS	14.65	98	342489	13.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.67%#			
65) SS 4-BFB_MS	18.13	95	130668	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.80%#			
83) SS 1,2-DCB-d4_MS	19.75	152	139162	12.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.02%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	1095162	118.259	ug/L	100
3) chloromethane	3.19	50	916541	95.712	ug/L	100
4) vinyl chloride	3.33	62	418278	111.919	ug/L	98
5) bromomethane	3.99	94	608805	111.432	ug/L	99
6) chloroethane	4.11	64	592527	102.868	ug/L	99
7) trichlorofluoromethane	4.52	101	1285573	105.807	ug/L	100
8) diethyl ether	5.02	59	671885	114.034	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	878654	122.241	ug/L	96
10) acrolein	5.27	56	68419	97.919	ug/L	98
11) acetone	5.39	43	202643	109.678	ug/L	93
17) acrylonitrile	6.82	53	358412	124.710	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	2326818	139.589	ug/L	96
20) hexane	7.27	57	1450032	165.186	ug/L	99
22) vinyl acetate	8.05	43	1807134	149.706	ug/L	98
27) 2-butanone(MEK)	8.96	43	373366	140.248	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	254908	148.020	ug/L	99
41) 1,4-dioxaneV	13.48	88	18331	276.930	ug/L #	79
44) 2-Chloroethoxyethene	13.95	63	207200	132.384	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	318455	135.264	ug/L	87
52) 2-hexanone	15.25	43	535895	143.778	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352917	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	283633	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	153510	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	83172	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.57%#			
35) SS 1,2-DCA-d4_MS	11.34	65	91309	11.51	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 115.08%			
48) SS Toluene-d8_MS	14.66	98	355662	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
65) SS 4-BFB_MS	18.13	95	139298	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.82%#			
83) SS 1,2-DCB-d4_MS	19.76	152	152678	12.62	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.24%#			
90) SS 2,5-DBT_MS	23.36	250	771525	249.92	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 624.79%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	1639315	209.245	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.86	59	729498	1353.541	ug/L #	80
15) methylene chloride	6.54	84	1690349	192.418	ug/L	97
16) carbon disulfide	6.57	76	4981979	220.091	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	1915096	255.935	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	6511629	282.763	ug/L	97
23) 1,1-dichloroethane	8.04	63	3480341	251.281	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	5811062	307.178	ug/L #	96
25) 2,2-dichloropropane	9.24	77	2749515	314.138	ug/L	89
26) cis-1,2-dichloroethene	9.36	61	2726180	252.944	ug/L	99
28) bromochloromethane	10.08	128	1027863	251.673	ug/L	99
30) chloroform	9.71	83	3356260	244.984	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	2901909	268.582	ug/L	97
33) carbon tetrachloride	11.17	117	2627635	271.829	ug/L	100
34) 1,1-dichloropropene	10.96	75	2780848	261.767	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	5282500	259.403	ug/L #	88
37) benzene	11.56	78	7736803	232.322	ug/L	100
38) 1,2-dichloroethane	11.54	62	2496597	228.589	ug/L	99
39) trichloroethene	12.73	95	2083327	248.290	ug/L	98
40) 1,2-dichloropropane	13.05	63	2045445	249.431	ug/L	97
42) dibromomethane	13.53	93	1169005	240.240	ug/L	96
43) bromodichloromethane	13.44	83	2581872	266.209	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	3110944	234.689	ug/L	98
49) toluene	14.77	91	8201808	225.039	ug/L	99
50) trans-1,3-dichloropropene	15.04	75	2955640	242.915	ug/L	98
51) 1,1,2-trichloroethane	15.25	83	1405014	243.066	ug/L	98
53) tetrachloroethene	15.67	166	2315834	237.012	ug/L	95
54) 1,3-dichloropropane	15.60	76	2915417	234.879	ug/L	100
55) dibromochloromethane	15.95	129	2046120	237.426	ug/L #	99
56) 1,2-dibromoethane	16.22	107	1801957	256.835	ug/L	100
57) chlorobenzene	16.75	112	5651839	224.266	ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	1740580	222.348	ug/L	100
59) ethylbenzene	16.80	91	7911394	195.131	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

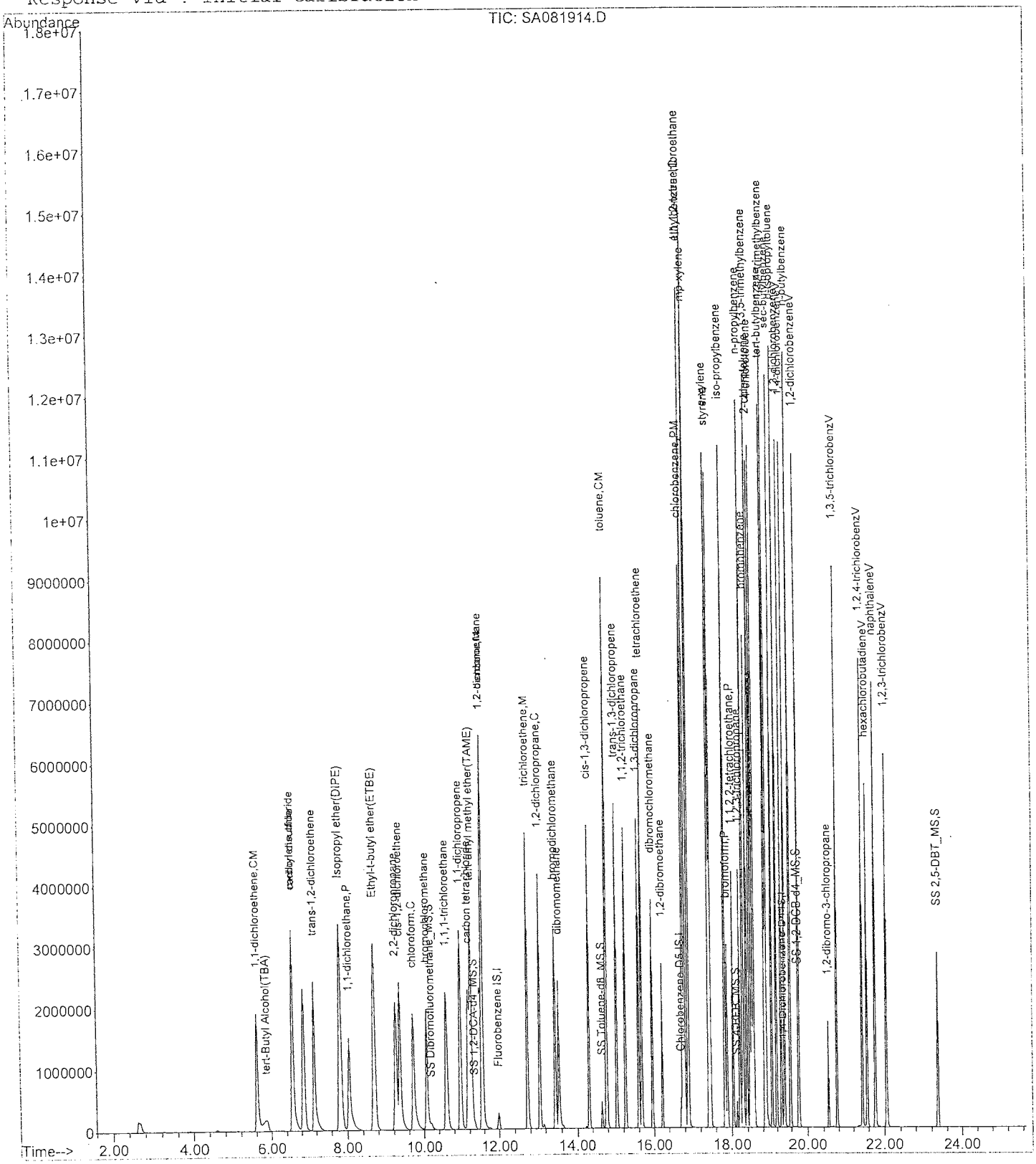
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.89	106	5843928	355.097	ug/L	99
61) o-xylene	17.42	106	3620276	232.677	ug/L	99
62) styrene	17.46	104	5948127	226.157	ug/L	97
63) bromoform	17.89	173	1315128	241.348	ug/L	97
64) iso-propylbenzene	17.83	105	8256023	224.726	ug/L	98
67) bromobenzene	18.38	156	2519837	238.767	ug/L	96
68) 1,1,2,2-tetrachloroethane	18.04	83	2105043	247.777	ug/L	99
69) 1,2,3-trichloropropane	18.21	110	651168	244.746	ug/L	98
71) n-propylbenzene	18.29	91	10096001	215.138	ug/L	95
72) 2-chlorotoluene	18.52	91	6431269	217.201	ug/L	98
73) 4-chlorotoluene	18.56	91	6405595	214.798	ug/L	98
74) 1,3,5-trimethylbenzene	18.47	105	7324783	221.782	ug/L	99
75) tert-butylbenzene	18.85	119	6622103	228.234	ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	7265425	212.115	ug/L	99
77) sec-butylbenzene	19.06	105	8783820	213.911	ug/L	97
78) 1,3-dichlorobenzeneV	19.32	146	4477751	225.944	ug/L	99
79) p-isopropyltoluene	19.19	119	7531539	216.432	ug/L	97
80) 1,4-dichlorobenzeneV	19.43	146	4465428	220.947	ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	4209219	224.227	ug/L	96
82) n-butylbenzene	19.59	91	6556792	218.698	ug/L	96
84) 1,2-dibromo-3-chloropropan	20.52	157	456270	252.746	ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	2915062	255.668	ug/L	97
86) 1,2,4-trichlorobenzV	21.44	180	2543411	273.120	ug/L	97
87) hexachlorobutadieneV	21.56	225	1138311	255.527	ug/L	97
88) naphthaleneV	21.77	128	6413602	266.969	ug/L	100
89) 1,2,3-trichlorobenzV	22.06	180	2198315	272.846	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54:51 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

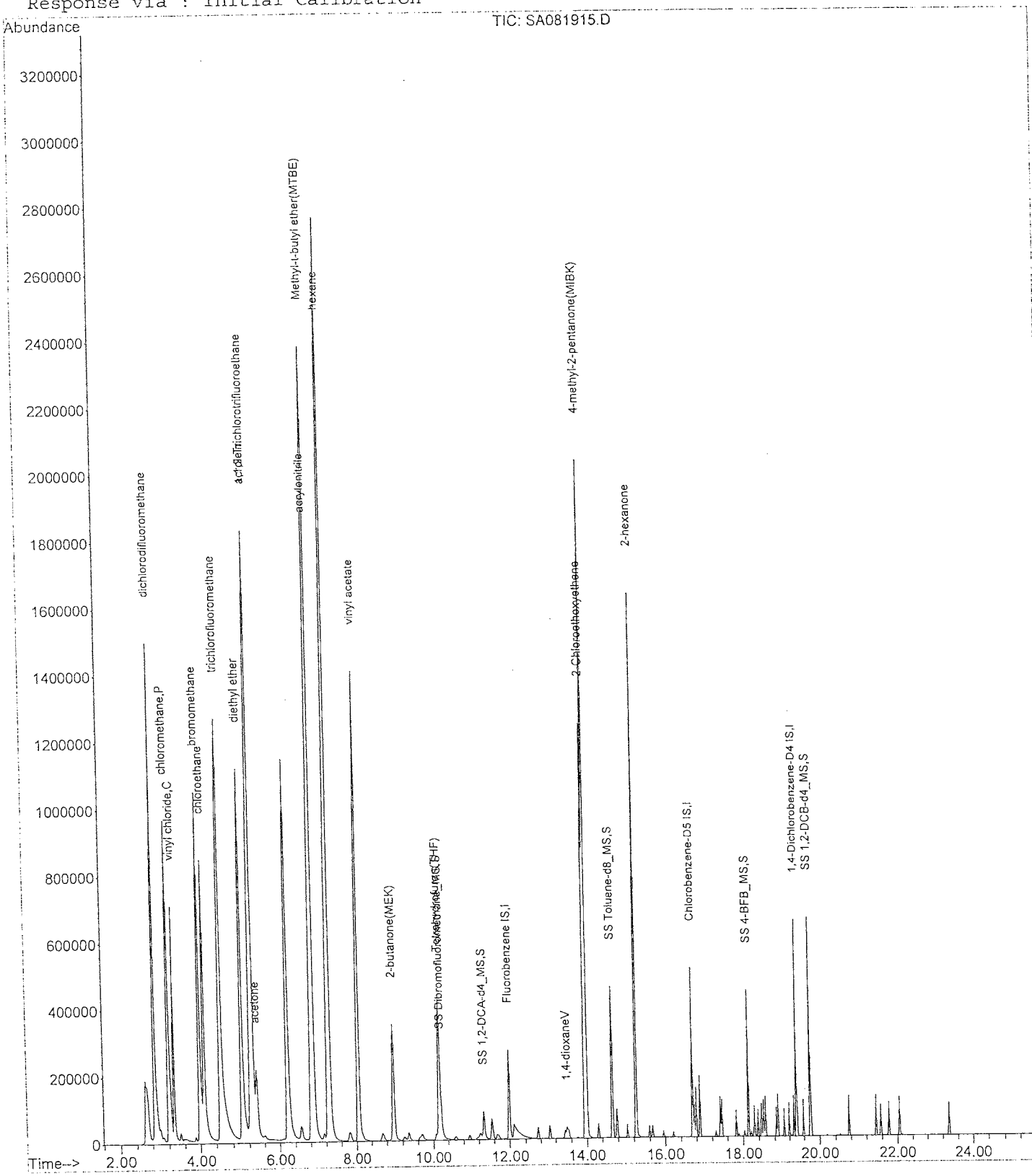
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356797	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	279401	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145819	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84203	12.27	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.74%#			
35) SS 1,2-DCA-d4_MS	11.33	65	101012	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
48) SS Toluene-d8_MS	14.65	98	354222	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.72%#			
65) SS 4-BFB_MS	18.13	95	137774	13.24	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.36%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145313	12.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.48%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	2171742	223.476	ug/L	100
3) chloromethane	3.18	50	1860747	185.169	ug/L	100
4) vinyl chloride	3.32	62	783027	202.579	ug/L	99
5) bromomethane	3.98	94	1244891	217.135	ug/L	99
6) chloroethane	4.10	64	1161779	192.205	ug/L	99
7) trichlorofluoromethane	4.51	101	2517167	197.422	ug/L	99
8) diethyl ether	5.02	59	1315712	212.798	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	1723484	228.492	ug/L	95
10) acrolein	5.27	56	137288	187.236	ug/L	98
11) acetone	5.39	43	399475	206.036	ug/L	94
17) acrylonitrile	6.82	53	722347	239.515	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	4757111	271.956	ug/L #	95
20) hexane	7.27	57	2854505	309.879	ug/L	98
22) vinyl acetate	8.05	43	3538301	279.325	ug/L	99
27) 2-butanone(MEK)	8.96	43	758375	271.465	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	517422	286.317	ug/L	100
41) 1,4-dioxaneV	13.49	88	37226	535.915	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	579288	250.204	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	651623	263.753	ug/L	82
52) 2-hexanone	15.25	43	1089936	278.512	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	361117	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.70	117	297048	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.40	152	157098	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	86530	12.46	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.63%#			
35) SS 1,2-DCA-d4_MS	11.34	65	92177	11.35	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.53%			
48) SS Toluene-d8_MS	14.66	98	370428	12.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.61%#			
65) SS 4-BFB_MS	18.14	95	146929	13.28	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.77%#			
83) SS 1,2-DCB-d4_MS	19.76	152	153858	12.43	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.31%#			
90) SS 2,5-DBT_MS	23.36	250	1176146	369.66	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 924.15%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.60	96	2351713	293.360	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.94	59	1071899m	1943.685	ug/L	
15) methylene chloride	6.54	84	2373457	264.044	ug/L	96
16) carbon disulfide	6.56	76	6989642	301.772	ug/L	99
19) trans-1,2-dichloroethene	7.14	96	2825884	369.078	ug/L	99
21) Isopropyl ether(DIPE)	7.82	45	9466436	401.740	ug/L	97
23) 1,1-dichloroethane	8.04	63	5164363	364.400	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	8575182	442.999	ug/L #	95
25) 2,2-dichloropropane	9.25	77	3897354	435.170	ug/L #	88
26) cis-1,2-dichloroethene	9.36	61	4000822	362.780	ug/L	98
28) bromochloromethane	10.08	128	1530647	366.270	ug/L	98
30) chloroform	9.71	83	4978228	355.126	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	4235914	383.147	ug/L	97
33) carbon tetrachloride	11.17	117	3829009	387.117	ug/L	99
34) 1,1-dichloropropene	10.96	75	4029861	370.726	ug/L	97
36) tert-amyl methyl ether(TAM	11.25	73	7865850	375.326	ug/L #	87
37) benzene	11.56	78	10778944	316.322	ug/L	99
38) 1,2-dichloroethane	11.54	62	3507010	313.812	ug/L	99
39) trichloroethene	12.73	95	3049607	355.198	ug/L	98
40) 1,2-dichloropropane	13.05	63	2986704	355.943	ug/L	96
42) dibromomethane	13.53	93	1714518	344.346	ug/L	96
43) bromodichloromethane	13.44	83	3810484	383.966	ug/L	99
46) cis-1,3-dichloropropene	14.31	75	4524780	332.879	ug/L	97
49) toluene	14.77	91	11176932	292.820	ug/L	98
50) trans-1,3-dichloropropene	15.04	75	4253809	333.325	ug/L	97
51) 1,1,2-trichloroethane	15.25	83	2050277	338.678	ug/L	98
53) tetrachloroethene	15.68	166	3280022	320.531	ug/L	94
54) 1,3-dichloropropane	15.60	76	4181659	321.679	ug/L	99
55) dibromochloromethane	15.95	129	3005809	332.115	ug/L #	99
56) 1,2-dibromoethane	16.22	107	2663210	362.448	ug/L	99
57) chlorobenzene	16.75	112	7716586	292.368	ug/L	98
58) 1,1,1,2-tetrachloroethane	16.79	131	2279636	278.057	ug/L	99
59) ethylbenzene	16.80	91	9741323	229.414	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

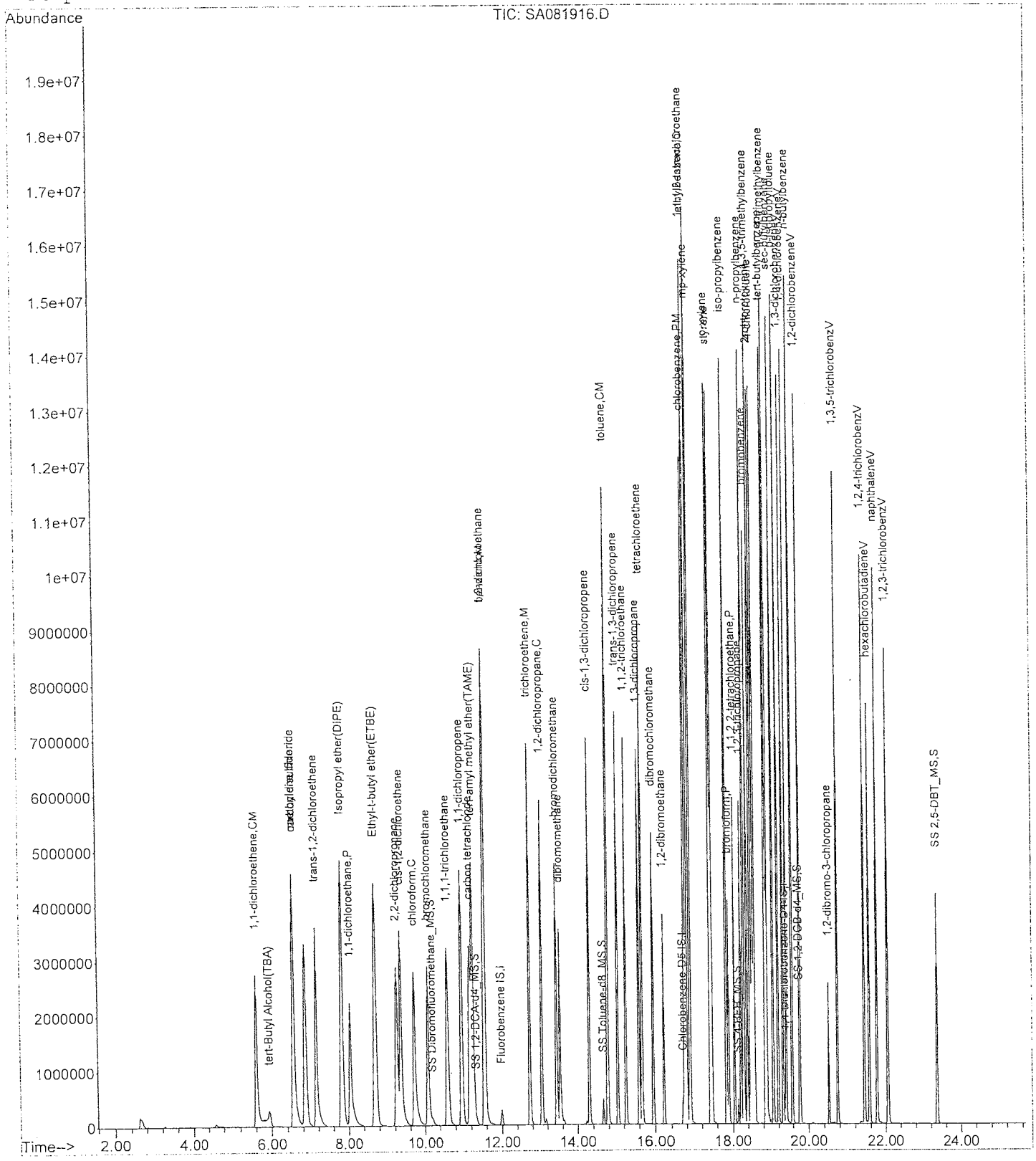
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.90	106	7129553	413.652	ug/L	99
61) o-xylene	17.42	106	4827336	296.243	ug/L	98
62) styrene	17.47	104	7881747	286.143	ug/L	97
63) bromoform	17.90	173	1915867	334.604	ug/L	96
64) iso-propylbenzene	17.83	105	10853307	282.082	ug/L	97
67) bromobenzene	18.38	156	3532372	327.065	ug/L	95
68) 1,1,2,2-tetrachloroethane	18.04	83	2945469	338.782	ug/L	98
69) 1,2,3-trichloropropane	18.21	110	926336	340.217	ug/L	97
71) n-propylbenzene	18.30	91	12752599	265.541	ug/L	93
72) 2-chlorotoluene	18.52	91	8782648	289.839	ug/L	97
73) 4-chlorotoluene	18.57	91	8183486	268.149	ug/L	97
74) 1,3,5-trimethylbenzene	18.47	105	9432429	279.074	ug/L	99
75) tert-butylbenzene	18.86	119	8575894	288.822	ug/L	95
76) 1,2,4-trimethylbenzene	18.90	105	9254189	264.006	ug/L	99
77) sec-butylbenzene	19.07	105	11057784	263.138	ug/L	95
78) 1,3-dichlorobenzeneV	19.33	146	5869211	289.393	ug/L	98
79) p-isopropyltoluene	19.20	119	9495059	266.625	ug/L	95
80) 1,4-dichlorobenzeneV	19.43	146	5795670	280.217	ug/L	95
81) 1,2-dichlorobenzeneV	19.79	146	5546151	288.698	ug/L	96
82) n-butylbenzene	19.59	91	8238948	268.529	ug/L	95
84) 1,2-dibromo-3-chloropropan	20.52	157	675015	363.995	ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	4004204	343.171	ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	3606681	378.452	ug/L	97
87) hexachlorobutadieneV	21.57	225	1626693	356.819	ug/L	96
88) naphthaleneV	21.77	128	8904734	362.198	ug/L	99
89) 1,2,3-trichlorobenzV	22.06	180	3179709	385.639	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:43 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57:01 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

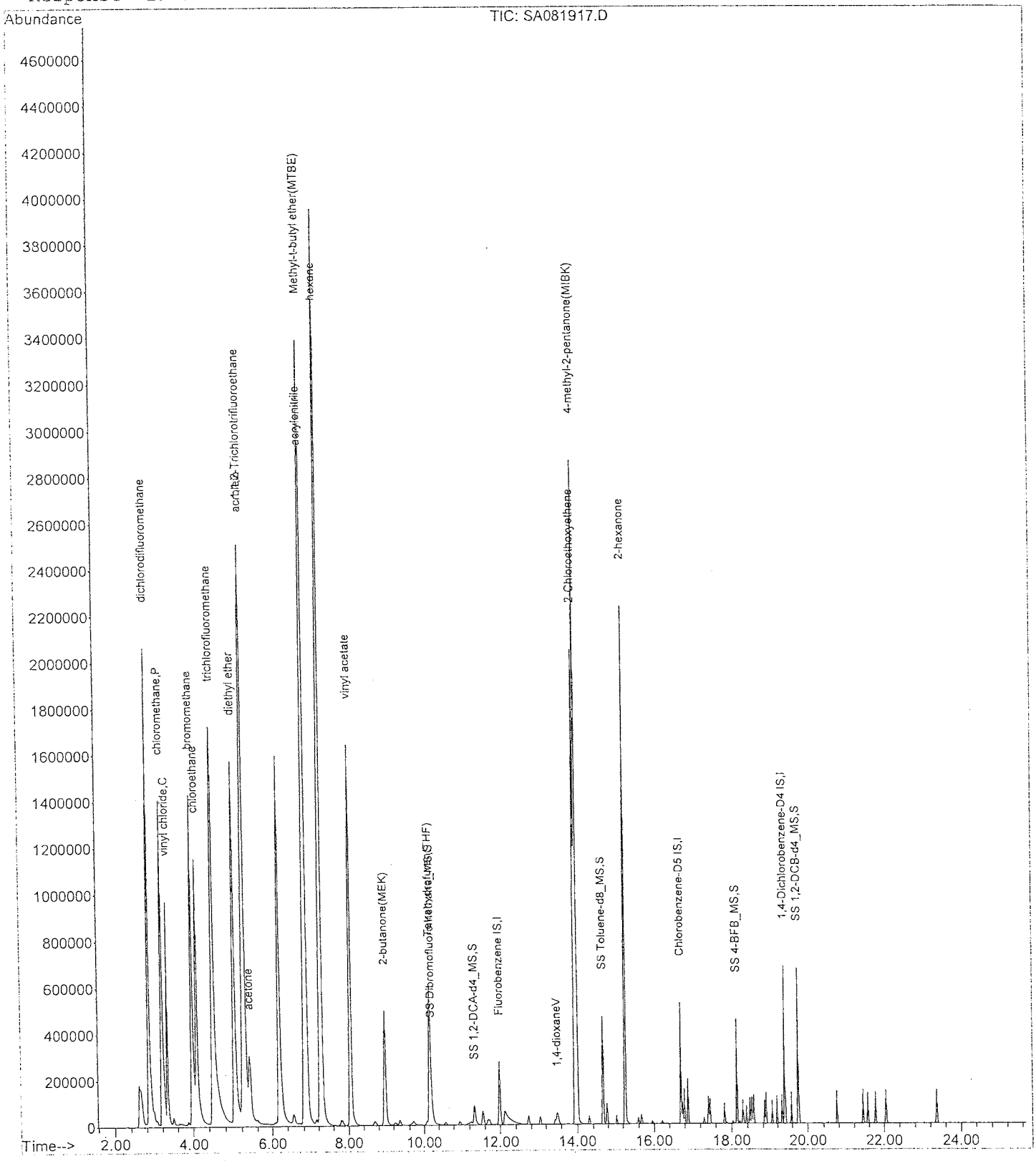
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	365026	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	289748	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	151171	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84441	12.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.32%#			
35) SS 1,2-DCA-d4_MS	11.33	65	100614	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.60%#			
48) SS Toluene-d8_MS	14.65	98	367488	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.77%#			
65) SS 4-BFB_MS	18.13	95	145238	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	149858	12.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.82%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	3136326	315.458	ug/L	100
3) chloromethane	3.18	50	2741981	266.712	ug/L	100
4) vinyl chloride	3.32	62	1081763	274.863	ug/L	99
5) bromomethane	3.98	94	1770569	301.862	ug/L	99
6) chloroethane	4.09	64	1619597	261.906	ug/L	99
7) trichlorofluoromethane	4.50	101	3572269	273.858	ug/L	99
8) diethyl ether	5.02	59	1883432	297.751	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.25	101	2408761	312.145	ug/L	95
10) acrolein	5.27	56	202421	269.842	ug/L	98
11) acetone	5.40	43	583196	294.013	ug/L	94
17) acrylonitrile	6.82	53	1052204	341.023	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	6841158	382.281	ug/L #	94
20) hexane	7.27	57	4092546	434.263	ug/L	97
22) vinyl acetate	8.05	43	4142786	319.672	ug/L	99
27) 2-butanone(MEK)	8.97	43	1123141	392.972	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	764350	413.421	ug/L	100
41) 1,4-dioxaneV	13.50	88	56897	800.639	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	979465	340.252	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	973665	385.220	ug/L	92
52) 2-hexanone	15.25	43	1616710	398.367	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58:02 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

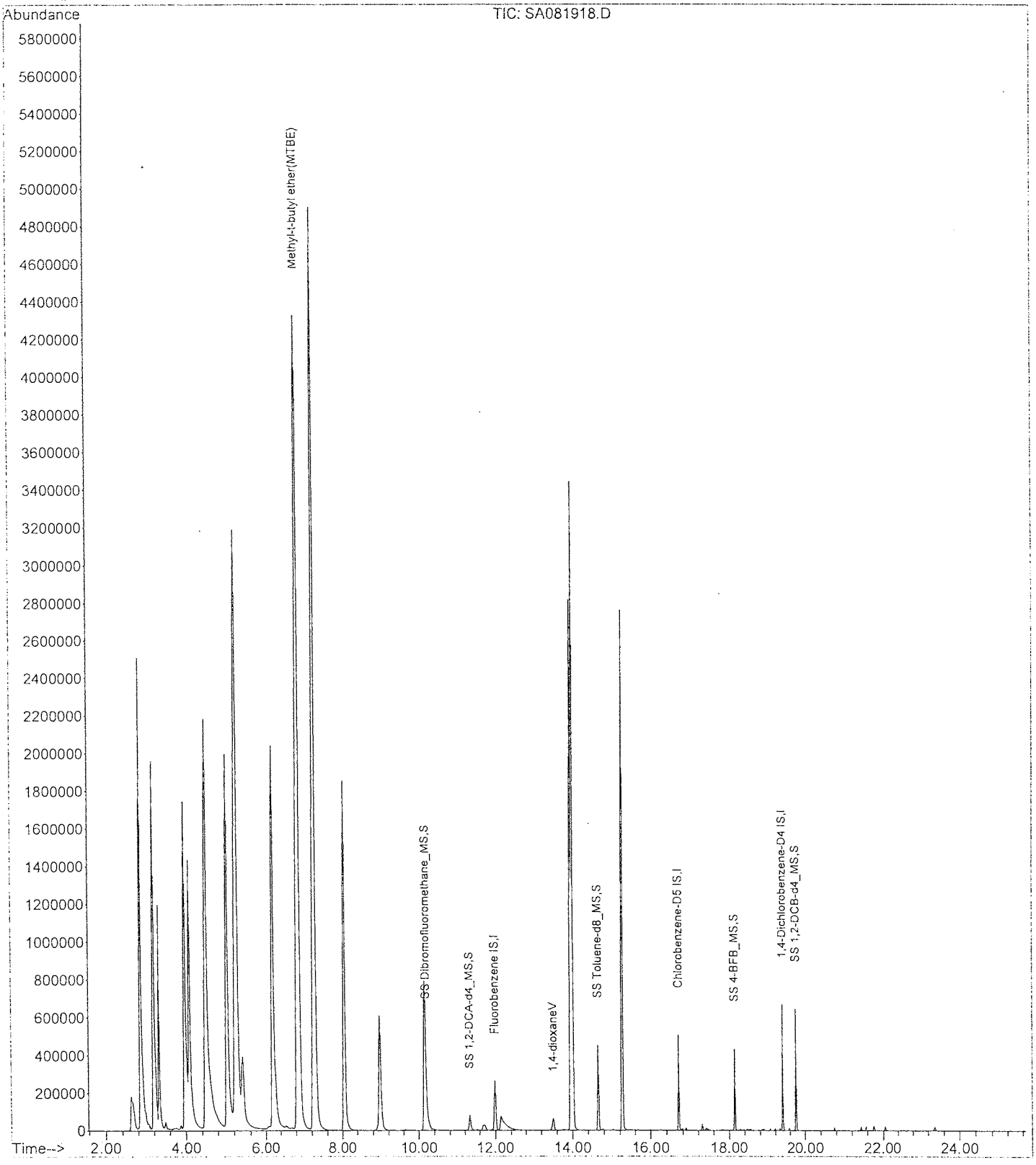
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352067	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282826	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	146980	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.19	111	81596	12.05	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.54%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98326	12.42	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.22%#			
48) SS Toluene-d8_MS	14.65	98	355856	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.75%#			
65) SS 4-BFB_MS	18.13	95	141765	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	146942	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.89%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.86	73	8686728	503.277	ug/L #	94
41) 1,4-dioxaneV	13.50	88	76339	1113.761	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59:00 2013 Quant Results File: 5VID0819.RES

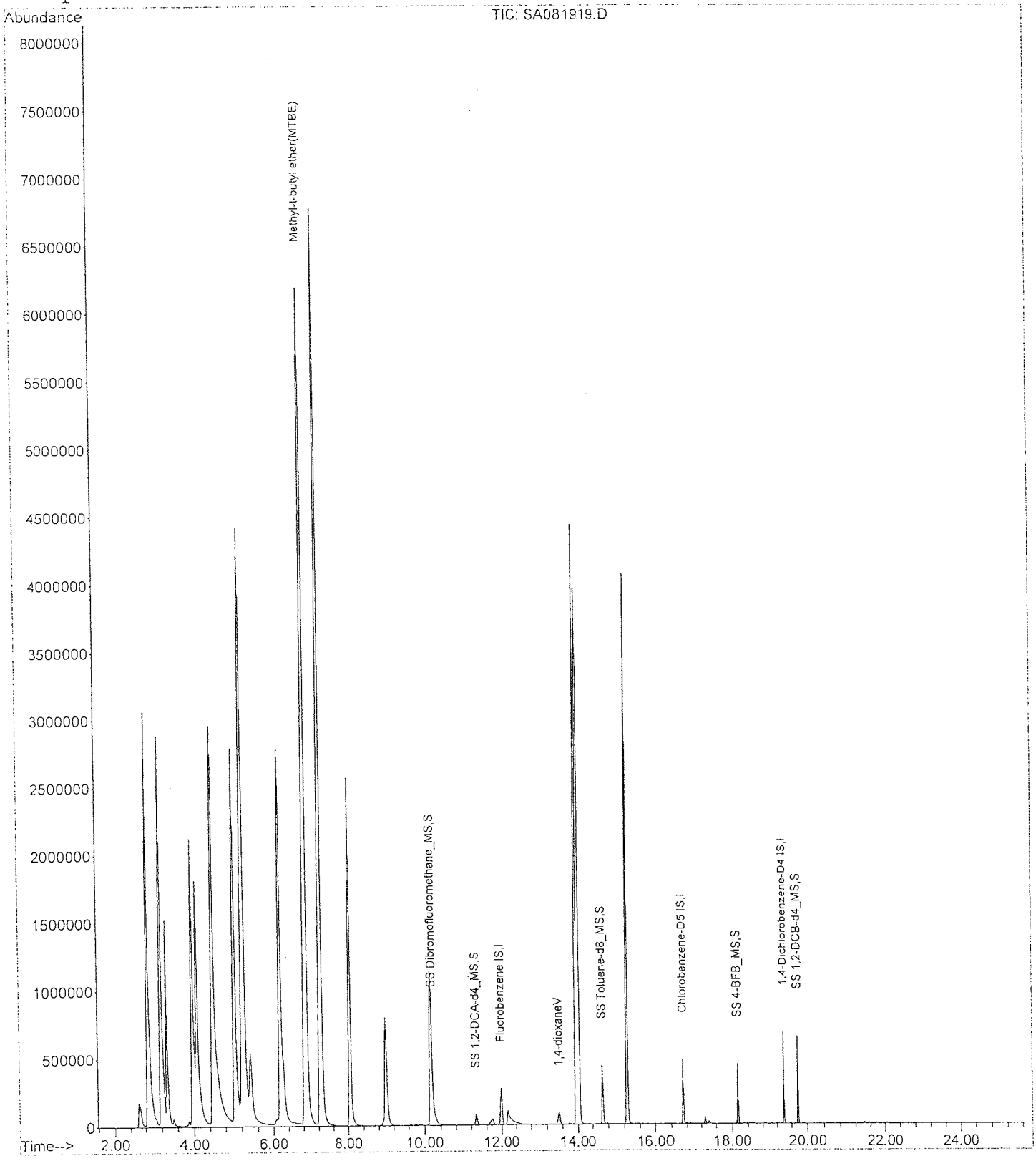
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356279	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	285578	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	147736	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79805	11.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 116.50%			
35) SS 1,2-DCA-d4_MS	11.33	65	97661	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.66	98	357402	12.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.06%#			
65) SS 4-BFB_MS	18.14	95	141951	13.34	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.42%#			
83) SS 1,2-DCB-d4_MS	19.76	152	148035	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.18%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.87	73	12562050	719.195	ug/L #	94
41) 1,4-dioxaneV	13.52	88	116549	1680.309	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	101	0.00
2		dichlorodifluoromethane	20.000	10.905	45.5#	60	0.00
3	P	chloromethane	20.000	14.534	27.3#	80	0.00
4	C	vinyl chloride	20.000	15.953	20.2#	85	0.01
5		bromomethane	20.000	17.157	14.2	93	0.02
6		chloroethane	20.000	17.506	12.5	94	0.02
7		trichlorofluoromethane	20.000	17.078	14.6	91	0.01
8		diethyl ether	20.000	21.076	-5.4	112	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.172	4.1	102	0.01
10		acrolein	20.000	25.533	-27.7#	129	0.00
11		acetone	20.000	18.652	6.7	99	-0.02
12	CM	1,1-dichloroethene	20.000	18.246	8.8	94	0.01
13		tert-Butyl Alcohol(TBA)	100.000	92.436	7.6	95	0.00
14		Iodomethane	20.000	18.505	7.5	114	0.00
15		methylene chloride	20.000	19.740	1.3	98	0.00
16		carbon disulfide	20.000	18.107	9.5	94	0.00
17		acrylonitrile	20.000	17.791	11.0	94	-0.01
18		Methyl-t-butyl ether(MTBE)	20 ~~40~~.000	20.236 OK	49.4#	53	-0.01
19		trans-1,2-dichloroethene	20.000	19.527	2.4	97	0.00
20		hexane	20.000	0.099	99.5#	1	0.00
21		Isopropyl ether(DIPE)	20.000	20.014	-0.1	99	-0.02
22		vinyl acetate	20.000	11.121	44.4#	56	0.00
23	P	1,1-dichloroethane	20.000	19.586	2.1	96	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	101	-0.01
25		2,2-dichloropropane	20.000	20.710	-3.6	99	0.00
26		cis-1,2-dichloroethene	20.000	21.297	-6.5	104	0.00
27		2-butanone(MEK)	20.000	18.212	8.9	103	-0.02
28		bromochloromethane	20.000	19.554	2.2	99	0.00
29		Tetrahydrofuran(THF)	20.000	19.171	4.1	104	0.00
30	C	chloroform	20.000	19.390	3.0	97	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.126	-1.3	101	0.00
32		1,1,1-trichloroethane	20.000	19.826	0.9	98	0.00
33		carbon tetrachloride	20.000	19.884	0.6	97	0.00
34		1,1-dichloropropene	20.000	18.723	6.4	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.888	1.1	100	0.00
36		tert-amyl methyl ether(TAME	20.000	20.530	-2.7	103	-0.02
37	M	benzene	20.000	20.251	-1.3	99	-0.01
38		1,2-dichloroethane	20.000	19.390	3.0	94	-0.01
39	M	trichloroethene	20.000	18.635	6.8	97	0.00
40	C	1,2-dichloropropane	20.000	20.058	-0.3	99	0.00
41		1,4-dioxaneV	20 ~~40~~.000	25.614 OK	36.0#	59	-0.02
42		dibromomethane	20.000	19.717	1.4	99	0.00
43		bromodichloromethane	20.000	19.342	3.3	96	0.00
44		2-Chloroethoxyethene	20.000	27.375	-36.9#	236	0.00
45		4-methyl-2-pentanone(MIBK)	20.000	19.509	2.5	105	-0.02
46		cis-1,3-dichloropropene	20.000	22.074	-10.4	108	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	102	0.00
48	S	SS Toluene-d8_MS	10.000	9.889	1.1	101	0.00
49	CM	toluene	20.000	20.389	-1.9	99	-0.01
50		trans-1,3-dichloropropene	20.000	20.612	-3.1	100	0.00
51		1,1,2-trichloroethane	20.000	19.927	0.4	101	0.00
52		2-hexanone	20.000	19.470	2.7	107	-0.02
53		tetrachloroethene	20.000	19.990	0.1	103	0.00
54		1,3-dichloropropane	20.000	19.175	4.1	100	0.00
55		dibromochloromethane	20.000	18.485	7.6	101	0.00
56		1,2-dibromoethane	20.000	19.837	0.8	99	0.00

Probable solution degradation; Reanalyze.

57	PM	chlorobenzene	20.000	19.917		0.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.283		-6.4	99	0.00
59	C	ethylbenzene	20.000	20.418		-2.1	99	-0.01
60		mp-xylene	40.000	39.722		0.7	99	-0.01
61		o-xylene	20.000	20.551		-2.8	99	-0.01
62		styrene	20.000	21.494		-7.5	101	-0.01
63	P	bromoform	20.000	18.485		7.6	106	0.00
64		iso-propylbenzene	20.000	22.658		-13.3	107	0.00
65	S	SS 4-BFB_MS	10.000	10.014		-0.1	102	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000		0.0	102	0.00
67		bromobenzene	20.000	19.813		0.9	98	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.994		0.0	98	0.00
69		1,2,3-trichloropropane	20.000	19.110		4.5	97	-0.01
70		trans-1,4-dichloro-2-butene	20.000	36.509		-82.5#	206	-0.02
71		n-propylbenzene	20.000	21.322		-6.6	100	-0.01
72		2-chlorotoluene	20.000	20.019		-0.1	97	-0.01
73		4-chlorotoluene	20.000	20.690		-3.5	98	-0.01
74		1,3,5-trimethylbenzene	20.000	20.898		-4.5	99	-0.01
75		tert-butylbenzene	20.000	20.674		-3.4	98	-0.01
76		1,2,4-trimethylbenzene	20.000	20.872		-4.4	98	-0.01
77		sec-butylbenzene	20.000	21.027		-5.1	98	0.00
78		1,3-dichlorobenzeneV	20.000	20.415		-2.1	98	0.00
79		p-isopropyltoluene	20.000	21.613		-8.1	99	0.00
80		1,4-dichlorobenzeneV	20.000	20.570		-2.9	99	-0.01
81		1,2-dichlorobenzeneV	20.000	20.087		-0.4	97	0.00
82		n-butylbenzene	20.000	21.377		-6.9	98	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.086		-0.9	103	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.813		5.9	105	0.00
85		1,3,5-trichlorobenzV	20.000	20.881		-4.4	102	0.00
86		1,2,4-trichlorobenzV	20.000	19.953		0.2	99	-0.01
87		hexachlorobutadieneV	20.000	18.435		7.8	95	-0.01
88		naphthaleneV	20.000	20.212		-1.1	98	-0.01
89		1,2,3-trichlorobenzV	20.000	19.789		1.1	99	-0.01
90	S	SS 2,5-DBT_MS	20.000	2.735		86.3#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

SA081909.D 5VID0819.M Fri Aug 23 12:47:55 2013

8/23/13

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334400	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268265	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	144317	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	79776	10.13 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.26%		
35) SS 1,2-DCA-d4_MS	11.33	65	93014	9.89 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.88%		
48) SS Toluene-d8_MS	14.65	98	336585	9.89 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.89%		
65) SS 4-BFB_MS	18.13	95	133430	10.01 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.14%		
83) SS 1,2-DCB-d4_MS	19.75	152	145311	10.09 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.86%		
90) SS 2,5-DBT_MS	23.36	250	124	2.73 ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.84%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	116230	10.905 ug/L	99
3) chloromethane	3.19	50	138142	14.534 ug/L	100
4) vinyl chloride	3.34	62	68399	15.953 ug/L	100
5) bromomethane	3.99	94	87185	17.157 ug/L	97
6) chloroethane	4.11	64	102536	17.506 ug/L	98
7) trichlorofluoromethane	4.52	101	214528	17.078 ug/L	99
8) diethyl ether	5.02	59	138702	21.076 ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	166080	19.172 ug/L	99
10) acrolein	5.27	56	17833	25.533 ug/L	97
11) acetone	5.39	43	37928	18.652 ug/L	98
12) 1,1-dichloroethene	5.61	96	151012	18.246 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65776	92.436 ug/L	97
14) Iodomethane	6.20	142	209619	18.505 ug/L #	99
15) methylene chloride	6.55	84	172986	19.740 ug/L	100
16) carbon disulfide	6.57	76	450197	18.107 ug/L	98
17) acrylonitrile	6.82	53	64549	17.791 ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	466669	20.236 ug/L	99
19) trans-1,2-dichloroethene	7.15	96	174070	19.527 ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	619163	20.014 ug/L	99
22) vinyl acetate	8.05	43	176494	11.121 ug/L	99
23) 1,1-dichloroethane	8.05	63	321728	19.586 ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.68	59	554843	20.305 ug/L	99
25) 2,2-dichloropropane	9.25	77	257500	20.710 ug/L	99
26) cis-1,2-dichloroethene	9.35	61	273762	21.297 ug/L	95
27) 2-butanone(MEK)	8.96	43	68155	18.212 ug/L	99
28) bromochloromethane	10.08	128	92247	19.554 ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	48249	19.171 ug/L	95
30) chloroform	9.71	83	307364	19.390 ug/L	100
32) 1,1,1-trichloroethane	10.59	97	262832	19.826 ug/L	99
33) carbon tetrachloride	11.17	117	225536	19.884 ug/L	99
34) 1,1-dichloropropene	10.96	75	244506	18.723 ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	492528	20.530 ug/L #	57
37) benzene	11.55	78	757808	20.251 ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081923.D 5VID0819.M Fri Aug 23 12:55:02 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

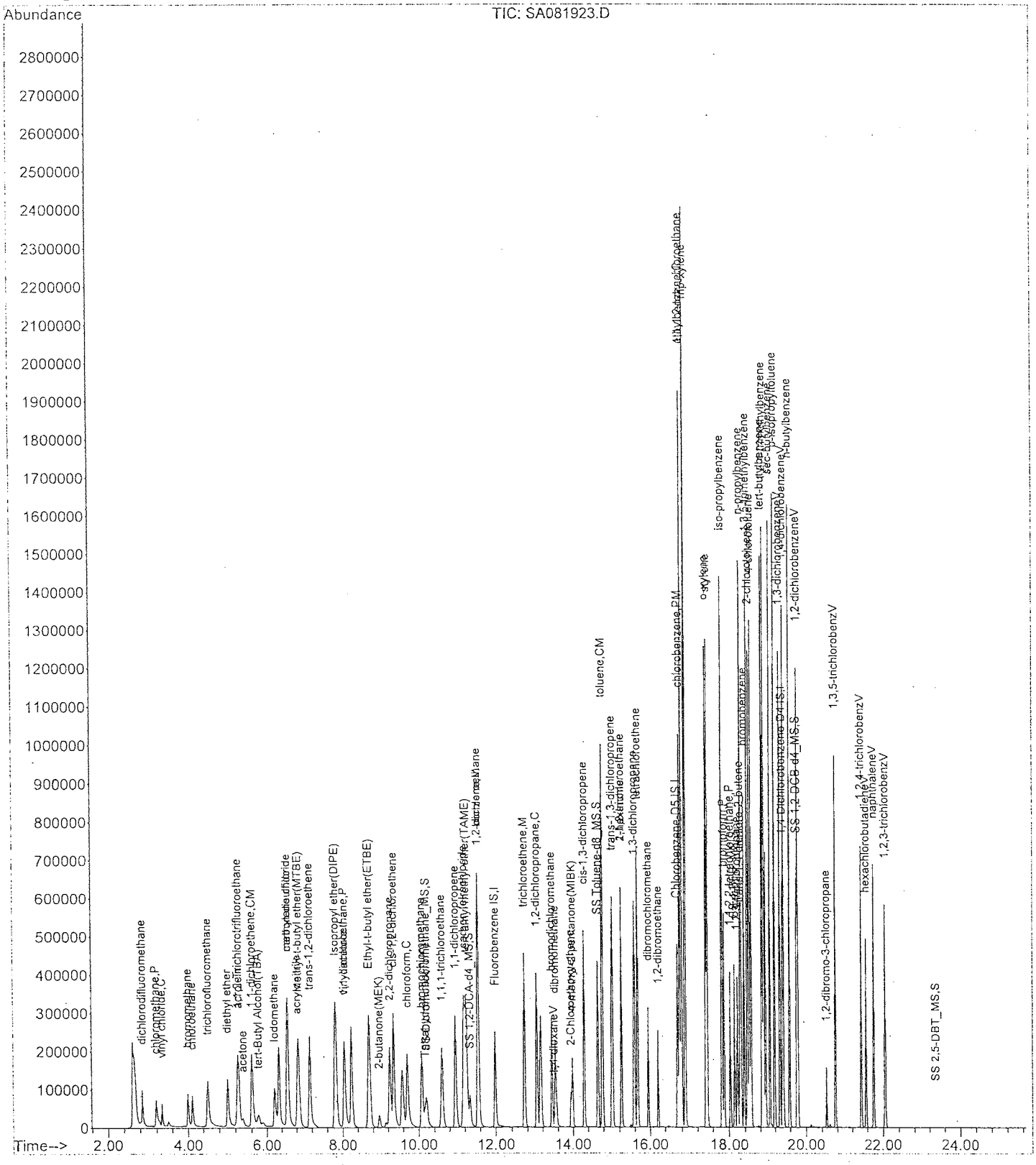
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	245366	19.390 ug/L	100
39) trichloroethene	12.73	95	188390	18.635 ug/L	99
40) 1,2-dichloropropane	13.05	63	188863	20.058 ug/L	98
41) 1,4-dioxaneV	13.49	88	2327	25.614 ug/L #	76
42) dibromomethane	13.53	93	105640	19.717 ug/L	100
43) bromodichloromethane	13.44	83	217510	19.342 ug/L	99
44) 2-Chloroethoxyethene	13.95	63	41636	27.375 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.98	58	57518	19.509 ug/L	90
46) cis-1,3-dichloropropene	14.30	75	298540	22.074 ug/L	99
49) toluene	14.77	91	839732	20.389 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	261583	20.612 ug/L #	78
51) 1,1,2-trichloroethane	15.25	83	129594	19.927 ug/L	98
52) 2-hexanone	15.25	43	101826	19.470 ug/L	99
53) tetrachloroethene	15.67	166	226693	19.990 ug/L	99
54) 1,3-dichloropropane	15.60	76	275069	19.175 ug/L #	85
55) dibromochloromethane	15.95	129	167538	18.485 ug/L #	100
56) 1,2-dibromoethane	16.22	107	162327	19.837 ug/L	99
57) chlorobenzene	16.74	112	557786	19.917 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	181536	21.283 ug/L	99
59) ethylbenzene	16.79	91	963930	20.418 ug/L	100
60) mp-xylene	16.89	106	775350	39.722 ug/L	99
61) o-xylene	17.41	106	374585	20.551 ug/L	99
62) styrene	17.46	104	645710	21.494 ug/L	100
63) bromoform	17.89	173	101459	18.485 ug/L #	92
64) iso-propylbenzene	17.83	105	977906	22.658 ug/L	100
67) bromobenzene	18.38	156	238344	19.813 ug/L	99
68) 1,1,2,2-tetrachloroethane	18.03	83	191862	19.994 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	58533	19.110 ug/L	99
70) trans-1,4-dichloro-2-buten	18.26	75	79254	36.509 ug/L #	80
71) n-propylbenzene	18.28	91	1159743	21.322 ug/L	100
72) 2-chlorotoluene	18.51	91	676963	20.019 ug/L	100
73) 4-chlorotoluene	18.56	91	701509	20.690 ug/L	100
74) 1,3,5-trimethylbenzene	18.46	105	809032	20.898 ug/L	100
75) tert-butylbenzene	18.84	119	710289	20.674 ug/L	100
76) 1,2,4-trimethylbenzene	18.89	105	823494	20.872 ug/L	99
77) sec-butylbenzene	19.06	105	1004949	21.027 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	464972	20.415 ug/L	100
79) p-isopropyltoluene	19.19	119	881827	21.613 ug/L	100
80) 1,4-dichlorobenzeneV	19.42	146	467337	20.570 ug/L	100
81) 1,2-dichlorobenzeneV	19.78	146	426411	20.087 ug/L	100
82) n-butylbenzene	19.58	91	741691	21.377 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	36907	18.813 ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	279878	20.881 ug/L	100
86) 1,2,4-trichlorobenzV	21.44	180	226463	19.953 ug/L	100
87) hexachlorobutadieneV	21.56	225	93768	18.435 ug/L	99
88) naphthaleneV	21.76	128	578790	20.212 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	193641	19.789 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (G) 4085 (L) (Neco)

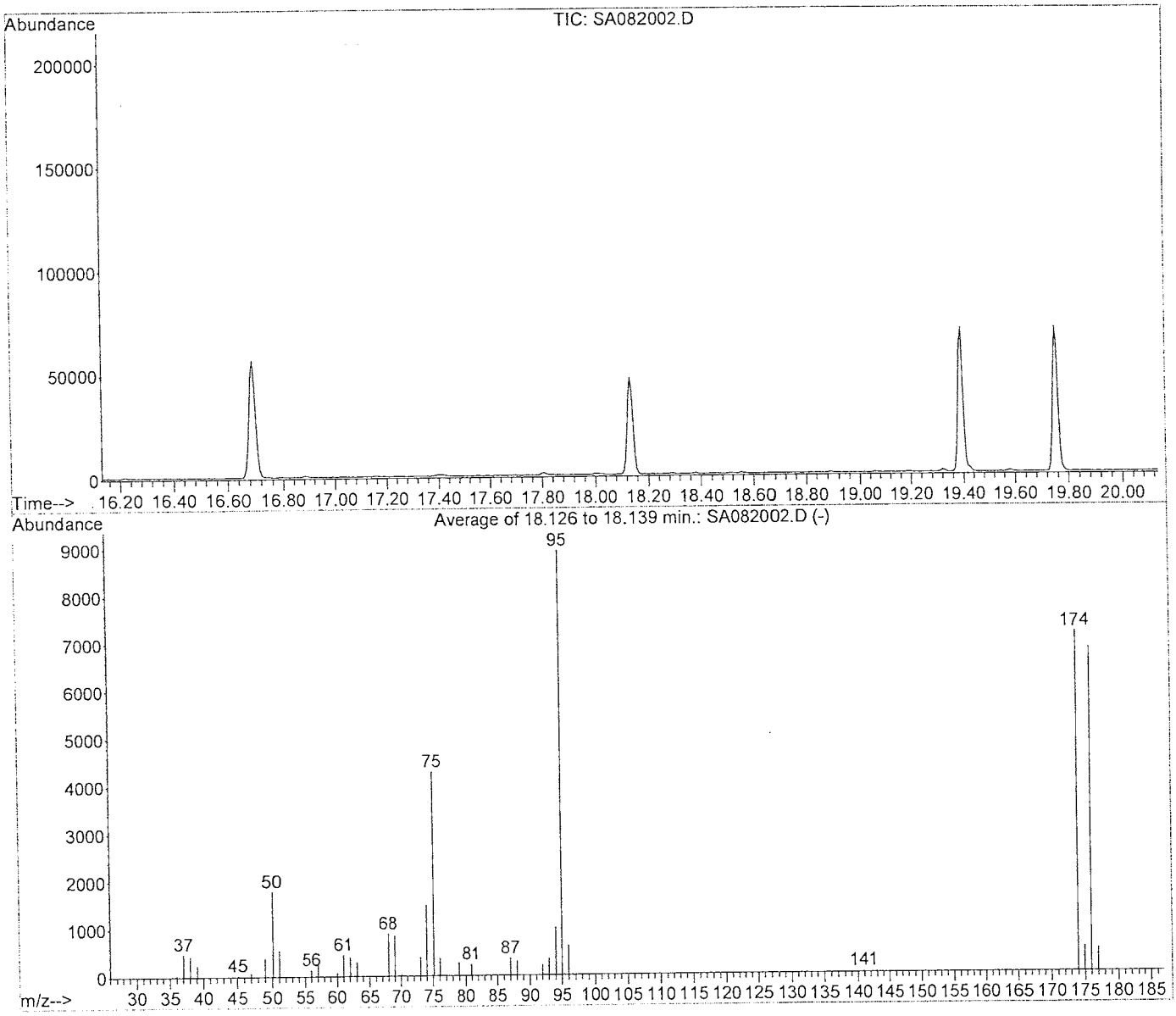
Analyst: [signature]

Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	3A082001	QAS 20					VOCMS		Second Source		
2		BFB 25ng					VOCMS	5110D819	AutoFind		✓
3		STD 10					VOCMS		OK		✓
4		STD 0.5					VOCMS				✓
5		MB					VOCMS				✓
6		123315.01	✓	✓		x1	VOCMS		confirmation		
7		.04	✓	✓			VOCMS				
8		123380.01	✓	✓			VOCMS				
9		123611.14		✓			VOCMS				
10		.15		✓			VOCMS				
11		.16		✓			VOCMS				
12		.17		✓			VOCMS				
13		.18		✓			VOCMS				
14		.19		✓			VOCMS				
15		.20		✓			VOCMS				
16		~~123624.01~~		✓			VOCMS		123315.02 RR bromoform		
17		.02		✓			VOCMS		.03		
18		123668.01		✓			VOCMS		.05		
19		.02		✓			VOCMS		.06		
20		123669.01		✓			VOCMS		.07		
21		~~.02~~		✓			VOCMS		123677.01		
22		LCS 10					VOCMS		OK	✓	✓
23		LCSD 10					VOCMS			✓	✓
							VOCMS				
							VOCMS				
							VOCMS				
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							VOCMS				
							VOCMS				

Samples removed from autosampler, order and pH verified by [signature] 8/21/13 1-23

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 12:21 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	1794	PASS
75	95	30	60	48.0	4283	PASS
95	95	100	100	100.0	8920	PASS
96	95	5	9	6.9	619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.1	7146	PASS
175	174	5	9	7.4	529	PASS
176	174	95	101	95.3	6810	PASS
177	176	5	9	7.2	489	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:23:11 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Aug 21 14:21:27 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

New 2nd Source GAS M-4092

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268403	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79209	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.35%			
35) SS 1,2-DCA-d4_MS	11.33	65	96370	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
48) SS Toluene-d8_MS	14.65	98	341573	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.31%			
65) SS 4-BFB_MS	18.13	95	131805	9.89	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.87%			
83) SS 1,2-DCB-d4_MS	19.75	152	139280	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.53%			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	213114 OK	19.560	ug/L	100
3) chloromethane	3.20	50	198329	20.412	ug/L	100
4) vinyl chloride	3.34	62	96161	22.155	ug/L	100
5) bromomethane	3.99	94	101759	19.589	ug/L	98
6) chloroethane	4.11	64	118267	19.752	ug/L	98
7) trichlorofluoromethane	4.52	101	241706	18.822	ug/L	99
10) acrolein	5.27	56	17657	24.730	ug/L	96
11) acetone	5.38	43	40059	19.271	ug/L	99
22) vinyl acetate	8.05	43	184735 ↓	11.387	ug/L	99
27) 2-butanone(MEK)	8.96	43	68939	18.020	ug/L	99
45) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.285	ug/L	89
52) 2-hexanone	15.25	43	102376	19.565	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082001.D 5VID0819.M Wed Aug 21 14:24:43 2013

8/21/13

Eastern Analytical, Inc.

Professional laboratory & drilling services

123704
VOC 8260B
Support Data

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092(L) 4085(L)

Analyst: ~~Blue~~

Date: 8/22/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082201	BFB					VOCMS	5VID0819	tune failed		
2	"	STD20					VOCMS	"	1		
3		STD2					VOCMS		Auto Final * used for BFB		
4		MB/~~BFB~~ Blue					VOCMS		Avg. 18.138-18.175		✓
5		STD20					VOCMS		BF ✓ ~~Blue used for~~ BFB - entire peak		✓
6		STD2					VOCMS				✓
7		123649.01		✓		x1	VOCMS				
8		.01 MS		✓		"	VOCMS				✓
9		.01 MSD		✓		"	VOCMS				✓
10		123649.02		✓		"	VOCMS				
11		.03		✓		"	VOCMS				
12		.04		✓		"	VOCMS				
13		.06		✓		"	VOCMS				
14		.06 MS		✓		"	VOCMS				✓
15		.06 MSD		✓		"	VOCMS				✓
16		~~Blue 123650.03~~					VOCMS		~~Blue~~ 123704.01 x1		
17		.04					VOCMS		123769.02		
18		.05					VOCMS		1 .02 MS		✓
19		123704.02 MSD		✓		x1	VOCMS				✓
20		.03		✓		"	VOCMS				
21		.04		✓		"	VOCMS				
22		.05		✓		"	VOCMS				
23		LCS20					VOCMS			✓	✓
24		LCSD20					VOCMS			✓	✓
25							VOCMS				
26							VOCMS				
27							VOCMS				
28							VOCMS				
29							VOCMS				
30							VOCMS				
31							VOCMS				
32							VOCMS				
33							VOCMS				
34							VOCMS				
35							VOCMS				
36							VOCMS				
37							VOCMS				
38							VOCMS				
39							VOCMS				
40							VOCMS				
41							VOCMS				
42							VOCMS				

Samples removed from autosampler, order and pH verified by ~~Blue~~ 8/23/13 1-27

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\DATA\2013\AUG13\AUG2213\SA082203.D
Tune Time : 22 Aug 2013 8:47 am

Daily Calibration File : C:\MSDCHEM\1\DATA\2013\AUG13\AUG2213\SA082205.D

						343104	273916	148868

File	Sample	Surrogate Recovery %				Internal Standard Responses		
SA082203.D	STD 2	98	99	100	100	340667	266776	142757
		100	11*					
SA082204.D	MB	98	100	100	98	334983	263391	137346
		101	7*					
SA082205.D	STD 20	101	97	100	101	343104	273916	148868
		100	42*					
SA082206.D	STD 2	98	99	100	100	334364	261227	138451
		100	10*					
SA082207.D	123649.01	98	100	100	99	329553	260372	136123
		101	7*					
SA082208.D	123649.01	102	97	99	99	331669	266923	145044
		100	7*					
SA082209.D	123649.01	101	97	99	100	344302	276735	148707
		100	0*					
SA082210.D	123649.02	98	99	100	99	335374	263799	137950
		101	0*					
SA082211.D	123649.03	99	100	99	98	326242	261159	135572
		101	0*					
SA082212.D	123649.04	98	101	100	98	333819	263870	135908
		102	0*					
SA082213.D	123649.06	98	101	99	98	338870	269977	139272
		102	0*					
SA082214.D	123649.06	102	96	99	100	346403	278203	149918
		100	0*					
SA082215.D	123649.06	102	95	99	100	349831	278751	148463
		101	0*					
SA082216.D	123704.01	99	101	99	98	333184	265243	136281
		102	0*					
SA082217.D	123704.02	98	101	99	98	335588	265866	137287
		102	0*					
SA082218.D	123704.02	102	97	98	99	326467	264785	141717
		101	0*					
SA082219.D	123704.02	102	96	100	99	342177	274408	146777
		102	0*					
SA082220.D	123704.03	98	100	98	97	337895	268113	137359
		103	0*					
SA082221.D	123704.04	98	99	99	98	329307	260841	133790
		102	0*					
SA082222.D	123704.05	99	103	99	98	326374	262224	135545
		102	0*					

3A082223.D LCS 20	103	98	99	100	326175	264476	143058
	101	0*					
3A082224.DtLCSD 20	102	98	99	100	343058	277201	149184
	102	0*					

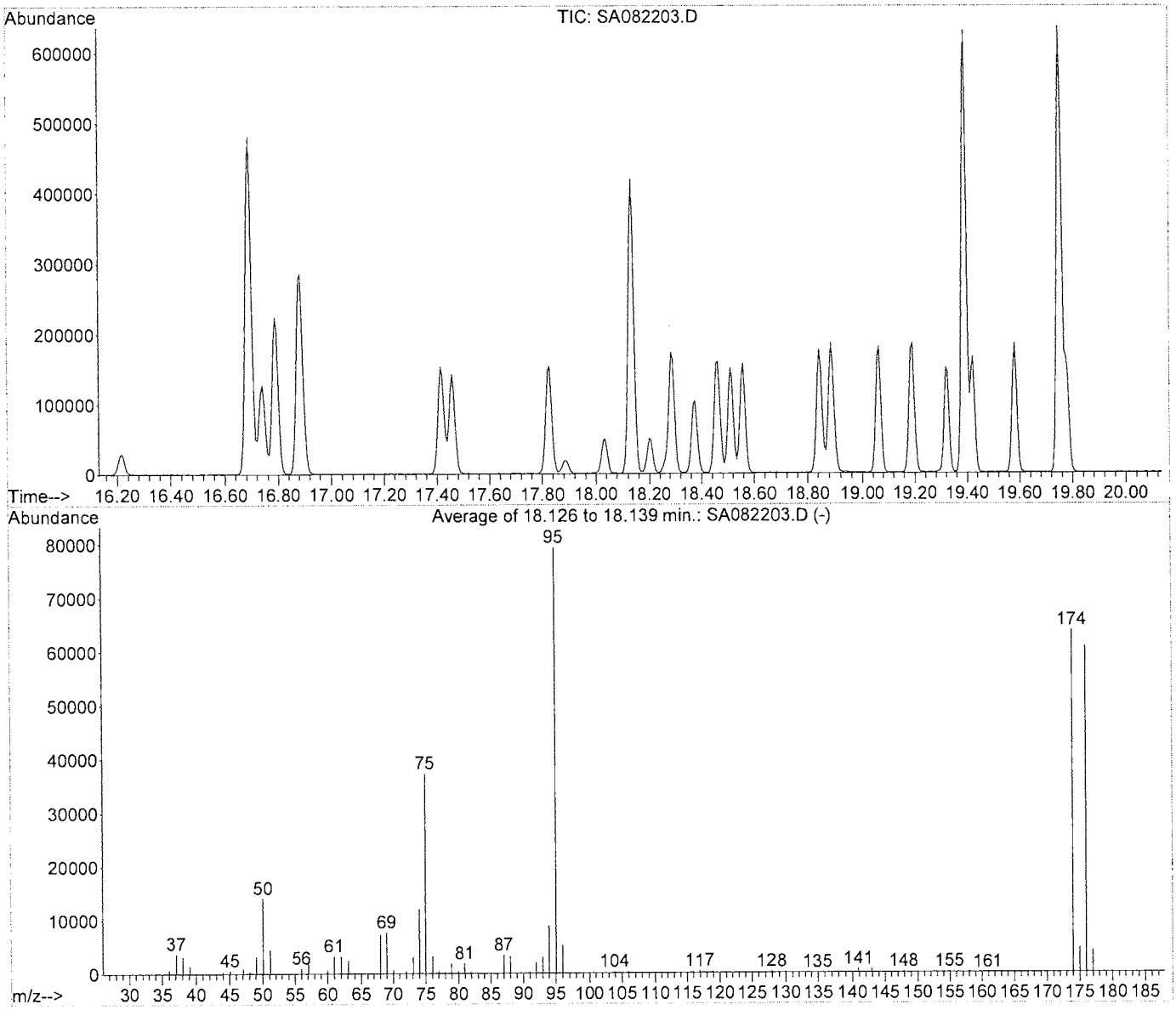
t - fails 12hr time check * - fails criteria 2,5 DBT NO added to AQ

Created: Thu Sep 05 15:09:47 2013 VOAMS5

LCSD 20 was outside 12 hr. window due to Centurion issue.
It passes BFB tune method criteria.

KMC 091513

Data File : W:\1\DATA\AUG13\AUG2213\SA082203.D Vial: 3
Acq On : 22 Aug 2013 8:47 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



Spectrum Information: Average of 18.126 to 18.139 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	14131	PASS
75	95	30	60	47.0	37304	PASS
95	95	100	100	100.0	79344	PASS
96	95	5	9	6.7	5291	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.4	63762	PASS
175	174	5	9	7.2	4613	PASS
176	174	95	101	95.4	60800	PASS
177	176	5	9	6.8	4115	PASS

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082204.D Vial: 4
Acq On : 22 Aug 2013 9:22 am Operator: BAM
Sample : BlnkA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:11:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

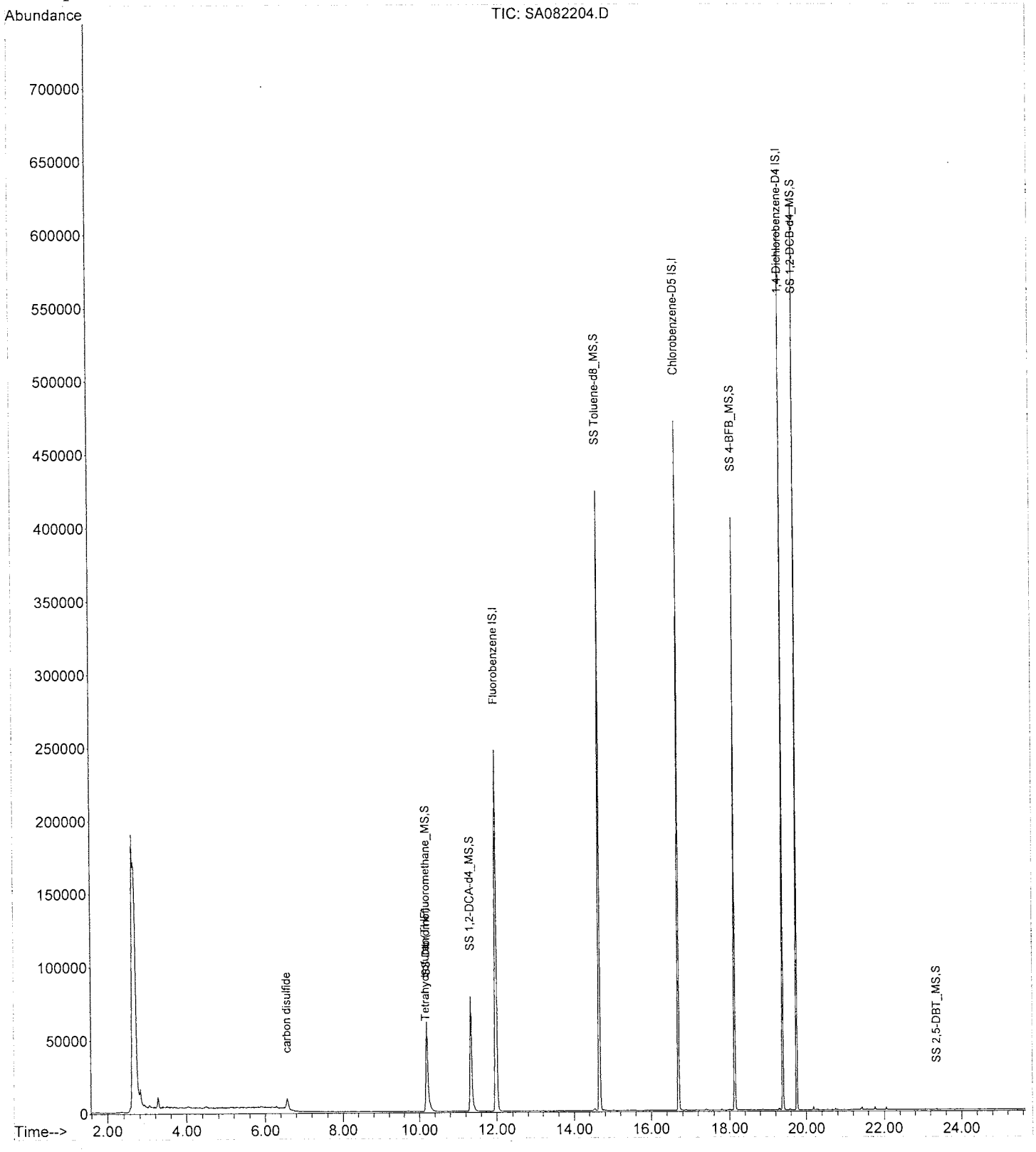
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334983	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	263391	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137346	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.21	111	77250	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.89%			
35) SS 1,2-DCA-d4_MS	11.33	65	94509	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.29%			
48) SS Toluene-d8_MS	14.65	98	333194	9.97	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.71%			
65) SS 4-BFB_MS	18.13	95	128432	9.82	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.17%			
83) SS 1,2-DCB-d4_MS	19.75	152	138060	10.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.69%			
90) SS 2,5-DBT_MS	23.36	250	257	2.77	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.94%#			
Target Compounds						Qvalue
16) carbon disulfide	6.57	76	12447	0.500	ug/L #	80
29) Tetrahydrofuran(THF)	10.17	42	538	0.213	ug/L #	38

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082204.D Vial: 4
Acq On : 22 Aug 2013 9:22 am Operator: BAM
Sample : BlnkA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:11 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	104	0.00
2		dichlorodifluoromethane	20.000	17.186	14.1	97	0.00
3	P	chloromethane	20.000	17.515	12.4	99	0.00
4	C	vinyl chloride	20.000	18.405	8.0	100	0.01
5		bromomethane	20.000	18.607	7.0	103	0.02
6		chloroethane	20.000	18.304	8.5	100	0.02
7		trichlorofluoromethane	20.000	18.141	9.3	99	0.01
8		diethyl ether	20.000	18.136	9.3	99	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	18.273	8.6	100	0.01
10		acrolein	20.000	21.571	-7.9	112	0.00
11		acetone	20.000	17.370	13.1	95	-0.02
12	CM	1,1-dichloroethene	20.000	18.294	8.5	96	0.01
13		tert-Butyl Alcohol(TBA)	100.000	89.179	10.8	94	0.00
14		Iodomethane	20.000	16.268	18.7	103	0.00
15		methylene chloride	20.000	19.134	4.3	98	0.00
16		carbon disulfide	20.000	18.379	8.1	97	0.01
17		acrylonitrile	20.000	19.104	4.5	104	-0.02
18		Methyl-t-butyl ether(MTBE)	40.000	36.434	8.9	98	-0.01
19		trans-1,2-dichloroethene	20.000	19.498	2.5	99	0.00
20		hexane	20.000	19.040	4.8	104	0.00
21		Isopropyl ether(DIPE)	20.000	19.155	4.2	97	-0.02
22		vinyl acetate	20.000	19.097	4.5	99	0.00
23	P	1,1-dichloroethane	20.000	19.312	3.4	98	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	18.765	6.2	96	-0.01
25		2,2-dichloropropane	20.000	19.189	4.1	94	0.00
26		cis-1,2-dichloroethene	20.000	19.263	3.7	97	0.00
27		2-butanone(MEK)	20.000	17.552	12.2	102	-0.02
28		bromochloromethane	20.000	19.175	4.1	99	0.00
29		Tetrahydrofuran(THF)	20.000	17.510	12.4	98	-0.01
30	C	chloroform	20.000	19.430	2.9	100	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.055	-0.5	103	0.00
32		1,1,1-trichloroethane	20.000	18.604	7.0	94	0.00
33		carbon tetrachloride	20.000	18.609	7.0	93	0.00
34		1,1-dichloropropene	20.000	19.296	3.5	98	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.722	2.8	101	0.00
36		tert-amyl methyl ether(TAME	20.000	18.478	7.6	95	-0.01
37	M	benzene	20.000	19.557	2.2	98	-0.01
38		1,2-dichloroethane	20.000	18.999	5.0	95	-0.01
39	M	trichloroethene	20.000	18.320	8.4	98	0.00
40	C	1,2-dichloropropane	20.000	19.399	3.0	98	0.00
41		1,4-dioxaneV	40.000	42.344	-5.9	100	-0.02
42		dibromomethane	20.000	19.034	4.8	98	0.00
43		bromodichloromethane	20.000	18.840	5.8	96	0.00
44		2-Chloroethoxyethene	20.000	16.352	18.2	113	-0.01
45		4-methyl-2-pentanone(MIBK)	20.000	18.530	7.3	103	-0.01
46		cis-1,3-dichloropropene	20.000	19.356	3.2	97	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	104	0.00
48	S	SS Toluene-d8_MS	10.000	9.962	0.4	104	0.00
49	CM	toluene	20.000	19.592	2.0	98	-0.01
50		trans-1,3-dichloropropene	20.000	19.145	4.3	95	0.00
51		1,1,2-trichloroethane	20.000	19.187	4.1	99	0.00
52		2-hexanone	20.000	17.832	10.8	100	-0.02
53		tetrachloroethene	20.000	18.398	8.0	97	0.00
54		1,3-dichloropropane	20.000	18.427	7.9	98	0.00
55		dibromochloromethane	20.000	16.990	15.1	94	0.00
56		1,2-dibromoethane	20.000	19.138	4.3	98	0.00

57	PM	chlorobenzene	20.000	19.510	2.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	20.133	-0.7	95	0.00
59	C	ethylbenzene	20.000	19.703	1.5	97	-0.01
60		mp-xylene	40.000	38.395	4.0	98	-0.01
61		o-xylene	20.000	19.777	1.1	97	-0.01
62		styrene	20.000	20.111	-0.6	96	-0.01
63	P	bromoform	20.000	15.797	21.0#	91	0.00
64		iso-propylbenzene	20.000	20.078	-0.4	96	0.00
65	S	SS 4-BFB_MS	10.000	10.090	-0.9	105	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000	0.0	105	0.00
67		bromobenzene	20.000	18.890	5.5	96	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.426	2.9	98	0.00
69		1,2,3-trichloropropane	20.000	18.436	7.8	96	0.00
70		trans-1,4-dichloro-2-butene	20.000	16.600	17.0	94	-0.01
71		n-propylbenzene	20.000	20.057	-0.3	97	-0.01
72		2-chlorotoluene	20.000	19.294	3.5	96	-0.01
73		4-chlorotoluene	20.000	19.652	1.7	96	-0.01
74		1,3,5-trimethylbenzene	20.000	19.727	1.4	96	-0.01
75		tert-butylbenzene	20.000	19.628	1.9	96	-0.01
76		1,2,4-trimethylbenzene	20.000	19.901	0.5	96	-0.01
77		sec-butylbenzene	20.000	20.090	-0.4	97	0.00
78		1,3-dichlorobenzeneV	20.000	19.357	3.2	96	0.00
79		p-isopropyltoluene	20.000	20.250	-1.3	96	0.00
80		1,4-dichlorobenzeneV	20.000	19.571	2.1	97	-0.01
81		1,2-dichlorobenzeneV	20.000	19.330	3.4	96	0.00
82		n-butylbenzene	20.000	20.315	-1.6	96	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	9.966	0.3	105	0.00
84		1,2-dibromo-3-chloropropane	20.000	16.462	17.7	94	0.00
85		1,3,5-trichlorobenzV	20.000	18.864	5.7	95	0.00
86		1,2,4-trichlorobenzV	20.000	18.694	6.5	96	-0.01
87		hexachlorobutadieneV	20.000	18.110	9.5	96	-0.01
88		naphthaleneV	20.000	19.276	3.6	96	-0.01
89		1,2,3-trichlorobenzV	20.000	18.583	7.1	96	-0.01
90	S	SS 2,5-DBT_MS	20.000	16.925	15.4	93	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SA081909.D 5VID0819.M Fri Aug 23 13:15:14 2013

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	1.000	1.000	0.0	104	0.00
2		dichlorodifluoromethane	0.319	0.274	14.1	97	0.00
3	P	chloromethane	0.284	0.249	12.3	99	0.00
4	C	vinyl chloride	0.149	0.117	21.5#	100	0.01
5		bromomethane	0.152	0.141	7.2	103	0.02
6		chloroethane	0.175	0.160	8.6	100	0.02
7		trichlorofluoromethane	0.376	0.341	9.3	99	0.01
8		diethyl ether	0.197	0.178	9.6	99	0.00
9		1,1,2-Trichlorotrifluoroeth	0.259	0.237	8.5	100	0.01
10		acrolein	0.021	0.023	-9.5	112	0.00
11		acetone	0.061	0.053	13.1	95	-0.02
12	CM	1,1-dichloroethene	0.247	0.226	8.5	96	0.01
13		tert-Butyl Alcohol(TBA)	0.021	0.019	9.5	94	0.00
14		Iodomethane	0.275	0.276	-0.4	103	0.00
15		methylene chloride	0.262	0.251	4.2	98	0.00
16		carbon disulfide	0.744	0.683	8.2	97	0.01
17		acrylonitrile	0.108	0.104	3.7	104	-0.02
18		Methyl-t-butyl ether(MTBE)	0.690	0.628	9.0	98	-0.01
19		trans-1,2-dichloroethene	0.267	0.260	2.6	99	0.00
20		hexane	0.413	0.393	4.8	104	0.00
21		Isopropyl ether(DIPE)	0.925	0.886	4.2	97	-0.02
22		vinyl acetate	0.475	0.453	4.6	99	0.00
23	P	1,1-dichloroethane	0.491	0.474	3.5	98	0.00
24		Ethyl-t-butyl ether(ETBE)	0.817	0.767	6.1	96	-0.01
25		2,2-dichloropropane	0.372	0.357	4.0	94	0.00
26		cis-1,2-dichloroethene	0.384	0.370	3.6	97	0.00
27		2-butanone(MEK)	0.112	0.098	12.5	102	-0.02
28		bromochloromethane	0.141	0.135	4.3	99	0.00
29		Tetrahydrofuran(THF)	0.075	0.066	12.0	98	-0.01
30	C	chloroform	0.474	0.461	2.7	100	0.00
31	S	SS Dibromofluoromethane_MS	0.236	0.237	-0.4	103	0.00
32		1,1,1-trichloroethane	0.396	0.369	6.8	94	0.00
33		carbon tetrachloride	0.339	0.316	6.8	93	0.00
34		1,1-dichloropropene	0.391	0.377	3.6	98	0.00
35	S	SS 1,2-DCA-d4_MS	0.281	0.274	2.5	101	0.00
36		tert-amyl methyl ether(TAME	0.717	0.663	7.5	95	-0.01
37	M	benzene	1.119	1.094	2.2	98	-0.01
38		1,2-dichloroethane	0.378	0.359	5.0	95	-0.01
39	M	trichloroethene	0.302	0.277	8.3	98	0.00
40	C	1,2-dichloropropane	0.282	0.273	3.2	98	0.00
41		1,4-dioxaneV	0.003	0.003	0.0	100	-0.02
42		dibromomethane	0.160	0.152	5.0	98	0.00
43		bromodichloromethane	0.336	0.317	5.7	96	0.00
44		2-Chloroethoxyethene	0.041	0.029	29.3#	113	-0.01
45		4-methyl-2-pentanone(MIBK)	0.088	0.082	6.8	103	-0.01
46		cis-1,3-dichloropropene	0.404	0.391	3.2	97	0.00
47	I	Chlorobenzene-D5 IS	1.000	1.000	0.0	104	0.00
48	S	SS Toluene-d8_MS	1.269	1.264	0.4	104	0.00
49	CM	toluene	1.535	1.504	2.0	98	-0.01
50		trans-1,3-dichloropropene	0.473	0.453	4.2	95	0.00
51		1,1,2-trichloroethane	0.242	0.233	3.7	99	0.00
52		2-hexanone	0.195	0.174	10.8	100	-0.02
53		tetrachloroethene	0.423	0.389	8.0	97	0.00
54		1,3-dichloropropane	0.535	0.493	7.9	98	0.00
55		dibromochloromethane	0.303	0.286	5.6	94	0.00
56		1,2-dibromoethane	0.305	0.292	4.3	98	0.00

57	PM	chlorobenzene	1.044	1.018	2.5	97	0.00
58		1,1,1,2-tetrachloroethane	0.318	0.320	-0.6	95	0.00
59	C	ethylbenzene	1.760	1.734	1.5	97	-0.01
60		mp-xylene	0.728	0.698	4.1	98	-0.01
61		o-xylene	0.679	0.672	1.0	97	-0.01
62		styrene	1.120	1.126	-0.5	96	-0.01
63	P	bromoform	0.177	0.159	10.2	91	0.00
64		iso-propylbenzene	1.609	1.615	-0.4	96	0.00
65	S	SS 4-BFB_MS	0.497	0.501	-0.8	105	0.00
66	I	1,4-Dichlorobenzene-D4 IS	1.000	1.000	0.0	105	0.00
67		bromobenzene	0.834	0.787	5.6	96	0.00
68	P	1,1,2,2-tetrachloroethane	0.665	0.646	2.9	98	0.00
69		1,2,3-trichloropropane	0.212	0.196	7.5	96	0.00
70		trans-1,4-dichloro-2-butene	0.129	0.121	6.2	94	-0.01
71		n-propylbenzene	3.769	3.780	-0.3	97	-0.01
72		2-chlorotoluene	2.343	2.260	3.5	96	-0.01
73		4-chlorotoluene	2.349	2.309	1.7	96	-0.01
74		1,3,5-trimethylbenzene	2.682	2.646	1.3	96	-0.01
75		tert-butylbenzene	2.381	2.336	1.9	96	-0.01
76		1,2,4-trimethylbenzene	2.734	2.720	0.5	96	-0.01
77		sec-butylbenzene	3.312	3.327	-0.5	97	0.00
78		1,3-dichlorobenzeneV	1.578	1.527	3.2	96	0.00
79		p-isopropyltoluene	2.827	2.862	-1.2	96	0.00
80		1,4-dichlorobenzeneV	1.574	1.540	2.2	97	-0.01
81		1,2-dichlorobenzeneV	1.471	1.422	3.3	96	0.00
82		n-butylbenzene	2.404	2.442	-1.6	96	0.00
83	S	SS 1,2-DCB-d4_MS	0.998	0.995	0.3	105	0.00
84		1,2-dibromo-3-chloropropane	0.122	0.111	9.0	94	0.00
85		1,3,5-trichlorobenzV	0.929	0.876	5.7	95	0.00
86		1,2,4-trichlorobenzV	0.786	0.735	6.5	96	-0.01
87		hexachlorobutadieneV	0.352	0.319	9.4	96	-0.01
88		naphthaleneV	1.984	1.912	3.6	96	-0.01
89		1,2,3-trichlorobenzV	0.678	0.630	7.1	96	-0.01
90	S	SS 2,5-DBT_MS	0.198	0.179	9.6	93	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 1

SA081909.D 5VID0819.M Fri Aug 23 13:16:20 2013

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14:53 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	343104	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	273916	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	148868	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	81276	10.06	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.55%			
35) SS 1,2-DCA-d4_MS	11.33	65	93840	9.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.22%			
48) SS Toluene-d8_MS	14.65	98	346206	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.62%			
65) SS 4-BFB_MS	18.13	95	137268	10.09	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.90%			
83) SS 1,2-DCB-d4_MS	19.75	152	148109	9.97	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.66%			
90) SS 2,5-DBT_MS	23.36	250	53253	16.93	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 42.31%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	187943	17.186	ug/L	100
3) chloromethane	3.19	50	170806	17.515	ug/L	100
4) vinyl chloride	3.34	62	80592	18.405	ug/L	100
5) bromomethane	3.99	94	97016	18.607	ug/L	98
6) chloroethane	4.11	64	109999	18.304	ug/L	98
7) trichlorofluoromethane	4.52	101	233815	18.141	ug/L	99
8) diethyl ether	5.02	59	122463	18.136	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162405	18.273	ug/L	100
10) acrolein	5.27	56	15458	21.571	ug/L	95
11) acetone	5.39	43	36240	17.370	ug/L	94
12) 1,1-dichloroethene	5.61	96	155346	18.294	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65110	89.179	ug/L	99
14) Iodomethane	6.20	142	189400	16.268	ug/L #	100
15) methylene chloride	6.55	84	172045	19.134	ug/L	100
16) carbon disulfide	6.57	76	468845	18.379	ug/L	100
17) acrylonitrile	6.81	53	71119	19.104	ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	862105	36.434	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	178338	19.498	ug/L	100
20) hexane	7.28	57	269487	19.040	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	608005	19.155	ug/L	100
22) vinyl acetate	8.05	43	310965	19.097	ug/L	100
23) 1,1-dichloroethane	8.05	63	325490	19.312	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.68	59	526106	18.765	ug/L	99
25) 2,2-dichloropropane	9.24	77	244794	19.189	ug/L	100
26) cis-1,2-dichloroethene	9.36	61	254057	19.263	ug/L	98
27) 2-butanone(MEK)	8.96	43	67395	17.552	ug/L	99
28) bromochloromethane	10.08	128	92810	19.175	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	45216	17.510	ug/L	96
30) chloroform	9.71	83	316023	19.430	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	253051	18.604	ug/L	100
33) carbon tetrachloride	11.17	117	216572	18.609	ug/L	99
34) 1,1-dichloropropene	10.96	75	258547	19.296	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	454839	18.478	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14:53 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

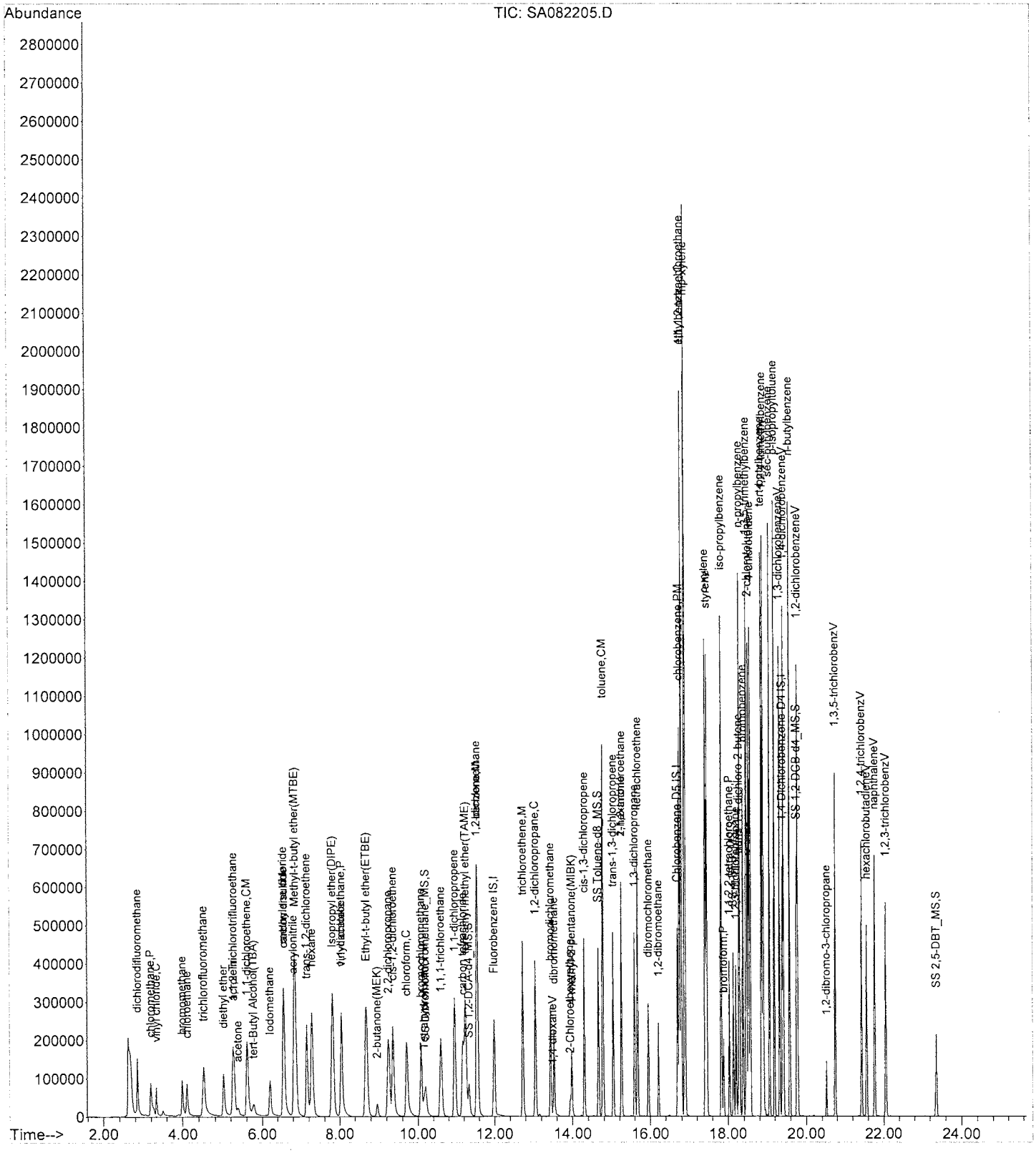
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) benzene	11.55	78	750876	19.557 ug/L	99
38) 1,2-dichloroethane	11.53	62	246667	18.999 ug/L	99
39) trichloroethene	12.73	95	190021	18.320 ug/L	99
40) 1,2-dichloropropane	13.05	63	187412	19.399 ug/L	98
41) 1,4-dioxaneV	13.49	88	3947	42.344 ug/L	99
42) dibromomethane	13.53	93	104632	19.034 ug/L	99
43) bromodichloromethane	13.44	83	217378	18.840 ug/L	99
44) 2-Chloroethoxyethene	13.94	63	19943	16.352 ug/L	80
45) 4-methyl-2-pentanone(MIBK)	13.99	58	56053	18.530 ug/L	98
46) cis-1,3-dichloropropene	14.30	75	268604	19.356 ug/L	98
49) toluene	14.77	91	823913	19.592 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	248082	19.145 ug/L	99
51) 1,1,2-trichloroethane	15.25	83	127408	19.187 ug/L	98
52) 2-hexanone	15.25	43	95223	17.832 ug/L	99
53) tetrachloroethene	15.67	166	213035	18.398 ug/L	99
54) 1,3-dichloropropane	15.60	76	269915	18.427 ug/L	99
55) dibromochloromethane	15.95	129	156949	16.990 ug/L #	100
56) 1,2-dibromoethane	16.22	107	159902	19.138 ug/L	99
57) chlorobenzene	16.74	112	557907	19.510 ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	175345	20.133 ug/L	99
59) ethylbenzene	16.79	91	949736	19.703 ug/L	100
60) mp-xylene	16.89	106	765235	38.395 ug/L	99
61) o-xylene	17.41	106	368063	19.777 ug/L	99
62) styrene	17.46	104	616867	20.111 ug/L	100
63) bromoform	17.89	173	87329	15.797 ug/L	100
64) iso-propylbenzene	17.83	105	884818	20.078 ug/L	100
67) bromobenzene	18.38	156	234413	18.890 ug/L	100
68) 1,1,2,2-tetrachloroethane	18.04	83	192290	19.426 ug/L	99
69) 1,2,3-trichloropropane	18.21	110	58249	18.436 ug/L	98
70) trans-1,4-dichloro-2-buten	18.27	75	36012	16.600 ug/L	99
71) n-propylbenzene	18.28	91	1125335	20.057 ug/L	100
72) 2-chlorotoluene	18.51	91	673012	19.294 ug/L	100
73) 4-chlorotoluene	18.56	91	687336	19.652 ug/L	100
74) 1,3,5-trimethylbenzene	18.46	105	787777	19.727 ug/L	99
75) tert-butylbenzene	18.84	119	695619	19.628 ug/L	100
76) 1,2,4-trimethylbenzene	18.89	105	809953	19.901 ug/L	100
77) sec-butylbenzene	19.06	105	990432	20.090 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	454783	19.357 ug/L	100
79) p-isopropyltoluene	19.19	119	852267	20.250 ug/L	100
80) 1,4-dichlorobenzeneV	19.42	146	458650	19.571 ug/L	100
81) 1,2-dichlorobenzeneV	19.78	146	423294	19.330 ug/L	100
82) n-butylbenzene	19.58	91	727095	20.315 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	32979	16.462 ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	260818	18.864 ug/L	100
86) 1,2,4-trichlorobenzV	21.44	180	218867	18.694 ug/L	100
87) hexachlorobutadieneV	21.56	225	95024	18.110 ug/L	99
88) naphthaleneV	21.76	128	569394	19.276 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	187569	18.583 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082205.D Vial: 5
Acq On : 22 Aug 2013 9:57 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:14 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16:41 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334364	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	261227	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	138451	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77089	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.86%			
35) SS 1,2-DCA-d4_MS	11.33	65	93049	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.92%			
48) SS Toluene-d8_MS	14.65	98	332260	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.25%			
65) SS 4-BFB_MS	18.13	95	129411	9.97	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.74%			
83) SS 1,2-DCB-d4_MS	19.75	152	138195	10.00	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.99%			
90) SS 2,5-DBT_MS	23.36	250	4921	4.11	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 10.29%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	17930	1.682	ug/L	98
3) chloromethane	3.19	50	17852	1.878	ug/L	98
4) vinyl chloride	3.34	62	9079	1.619	ug/L	99
5) bromomethane	4.00	94	9345	1.839	ug/L	99
6) chloroethane	4.11	64	10675	1.823	ug/L	95
7) trichlorofluoromethane	4.52	101	21955	1.748	ug/L	96
8) diethyl ether	5.03	59	11588	1.761	ug/L	97
9) 1,1,2-Trichlorotrifluoroet	5.27	101	15616	1.803	ug/L	98
10) acrolein	5.27	56	1962	2.809	ug/L #	50
11) acetone	5.39	43	4099	2.016	ug/L	96
12) 1,1-dichloroethene	5.61	96	12781	1.544	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.76	59	6090	8.559	ug/L	91
14) Iodomethane	6.20	142	11220	0.770	ug/L #	98
15) methylene chloride	6.55	84	17589	2.007	ug/L	99
16) carbon disulfide	6.57	76	47035	1.892	ug/L #	93
17) acrylonitrile	6.82	53	7126	1.964	ug/L	100
18) Methyl-t-butyl ether(MTBE)	6.85	73	77262	3.351	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	14830	1.664	ug/L	99
20) hexane	7.27	57	25620	1.857	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	50936	1.647	ug/L	98
22) vinyl acetate	8.05	43	27380	1.725	ug/L	99
23) 1,1-dichloroethane	8.04	63	27098	1.650	ug/L	97
24) Ethyl-t-butyl ether(ETBE)	8.69	59	44411	1.625	ug/L	98
25) 2,2-dichloropropane	9.25	77	18768	1.510	ug/L	95
26) cis-1,2-dichloroethene	9.37	61	21403	1.665	ug/L	100
27) 2-butanone(MEK)	8.97	43	6842	1.828	ug/L	97
28) bromochloromethane	10.07	128	7980	1.692	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	5073	2.016	ug/L	95
30) chloroform	9.71	83	26036	1.643	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	20204	1.524	ug/L	99
33) carbon tetrachloride	11.17	117	16083	1.418	ug/L	100
34) 1,1-dichloropropene	10.96	75	21139	1.619	ug/L	99
36) tert-amyl methyl ether(TAM	11.25	73	37619	1.568	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16:41 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

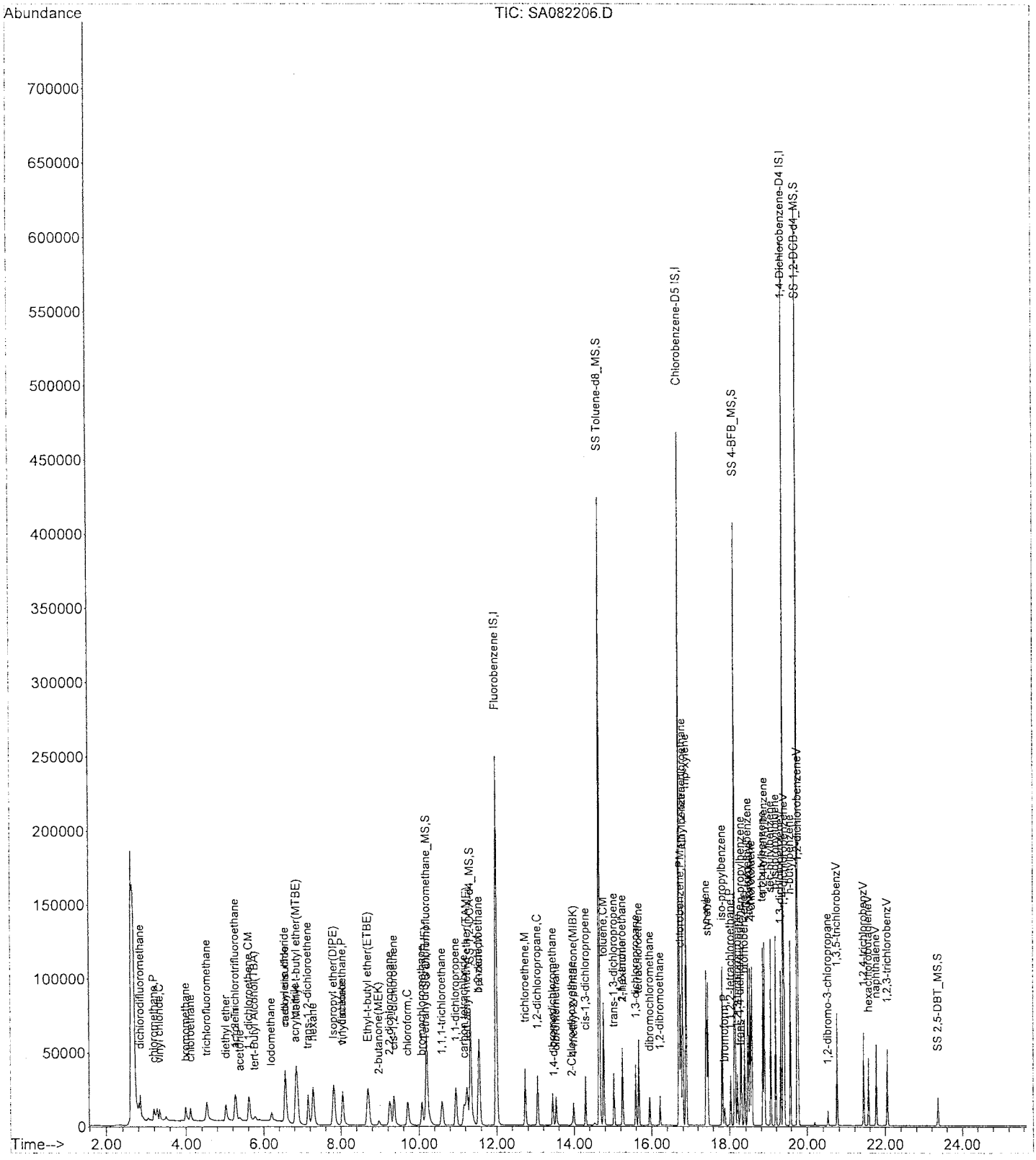
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	benzene	11.55	78	64788	1.732	ug/L		100
38)	1,2-dichloroethane	11.54	62	21527	1.701	ug/L		99
39)	trichloroethene	12.73	95	15944	1.577	ug/L		99
40)	1,2-dichloropropane	13.05	63	15837	1.682	ug/L		98
41)	1,4-dioxaneV	13.48	88	173	1.904	ug/L	#	72
42)	dibromomethane	13.53	93	9137	1.706	ug/L		98
43)	bromodichloromethane	13.44	83	15927	1.416	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	870	6.730	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	4913	1.667	ug/L		96
46)	cis-1,3-dichloropropene	14.30	75	19138	1.415	ug/L		98
49)	toluene	14.77	91	70050	1.747	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	17810	1.441	ug/L		98
51)	1,1,2-trichloroethane	15.25	83	10459	1.652	ug/L		99
52)	2-hexanone	15.25	43	8905	1.749	ug/L		98
53)	tetrachloroethene	15.67	166	17582	1.592	ug/L		99
54)	1,3-dichloropropane	15.60	76	22594	1.617	ug/L		98
55)	dibromochloromethane	15.95	129	10240	1.510	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	12574	1.578	ug/L		99
57)	chlorobenzene	16.74	112	47883	1.756	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.78	131	12733	1.533	ug/L		97
59)	ethylbenzene	16.79	91	77890	1.694	ug/L		99
60)	mp-xylene	16.89	106	63008	3.315	ug/L		99
61)	o-xylene	17.41	106	29409	1.657	ug/L		98
62)	styrene	17.46	104	48284	1.651	ug/L		99
63)	bromoform	17.88	173	5125	2.257	ug/L		96
64)	iso-propylbenzene	17.83	105	70932	1.688	ug/L		99
67)	bromobenzene	18.38	156	19124	1.657	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	15195	1.651	ug/L	#	1
69)	1,2,3-trichloropropane	18.21	110	4707	1.602	ug/L		92
70)	trans-1,4-dichloro-2-buten	18.26	75	2256	1.981	ug/L	#	82
71)	n-propylbenzene	18.28	91	90683	1.738	ug/L		99
72)	2-chlorotoluene	18.51	91	56620	1.745	ug/L		100
73)	4-chlorotoluene	18.56	91	57016	1.753	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	63291	1.704	ug/L		100
75)	tert-butylbenzene	18.84	119	55940	1.697	ug/L		99
76)	1,2,4-trimethylbenzene	18.89	105	64894	1.714	ug/L		100
77)	sec-butylbenzene	19.06	105	79442	1.733	ug/L		99
78)	1,3-dichlorobenzeneV	19.32	146	37959	1.737	ug/L		99
79)	p-isopropyltoluene	19.19	119	66535	1.700	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	38675	1.774	ug/L		95
81)	1,2-dichlorobenzeneV	19.77	146	35505	1.743	ug/L	#	80
82)	n-butylbenzene	19.58	91	56730	1.704	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	2189	2.316	ug/L		98
85)	1,3,5-trichlorobenzV	20.75	180	21433	1.667	ug/L		98
86)	1,2,4-trichlorobenzV	21.44	180	19046	1.749	ug/L		99
87)	hexachlorobutadieneV	21.56	225	8264	1.694	ug/L		99
88)	naphthaleneV	21.76	128	47450	1.727	ug/L		100
89)	1,2,3-trichlorobenzV	22.05	180	16795	1.789	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082206.D Vial: 6
Acq On : 22 Aug 2013 10:32 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:16 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082216.D Vial: 16
Acq On : 22 Aug 2013 4:17 pm Operator: BAM
Sample : 123704.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	333184	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	265243	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	136281	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	77714	9.90 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.01%		
35) SS 1,2-DCA-d4_MS	11.33	65	94209	10.05 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.51%		
48) SS Toluene-d8_MS	14.65	98	331540	9.85 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.52%		
65) SS 4-BFB_MS	18.13	95	129420	9.82 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.24%		
83) SS 1,2-DCB-d4_MS	19.75	152	138865	10.21 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.07%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
10) acrolein	5.27	56	250	0.359 ug/L #	1
11) acetone	5.38	43	1492	0.736 ug/L #	60
16) carbon disulfide	6.57	76	11566	0.467 ug/L #	83
29) Tetrahydrofuran(THF)	10.18	42	603	0.240 ug/L #	38
55) dibromochloromethane	15.95	129	43	0.377 ug/L #	11
70) trans-1,4-dichloro-2-buten	18.13	75	61531	~~30.181~~ ug/L #	2
86) 1,2,4-trichlorobenzV	21.44	180	2672	0.249 ug/L	99
87) hexachlorobutadieneV	21.56	225	1296	0.270 ug/L	97
88) naphthaleneV	21.77	128	7377	0.273 ug/L #	98
89) 1,2,3-trichlorobenzV	22.05	180	2831	0.306 ug/L	95

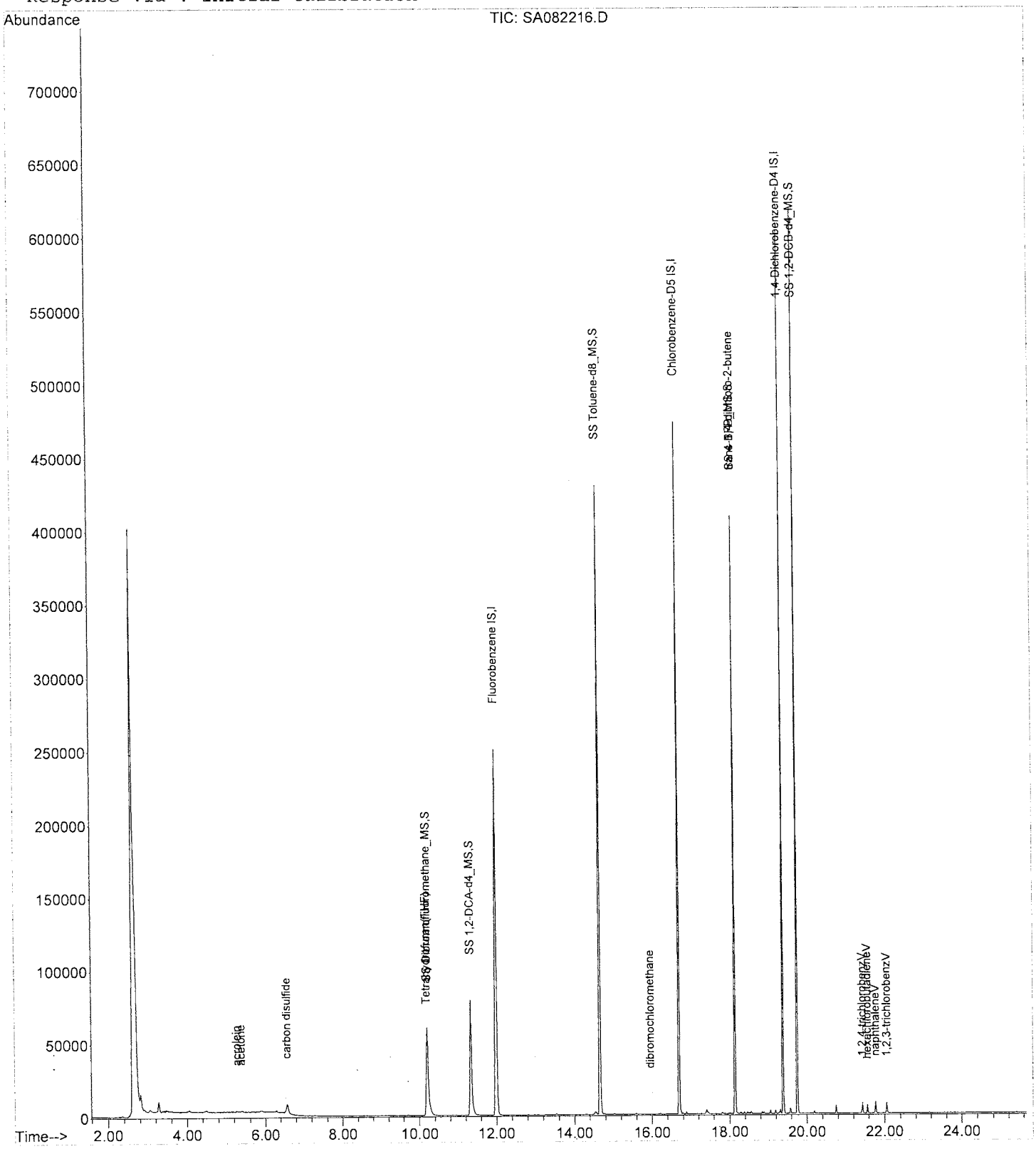
Brian 8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082216.D Vial: 16
Acq On : 22 Aug 2013 4:17 pm Operator: BAM
Sample : 123704.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082217.D Vial: 17
Acq On : 22 Aug 2013 4:52 pm Operator: BAM
Sample : 123704.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:40 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335588	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	265866	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137287	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	77209	9.77 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.66%		
35) SS 1,2-DCA-d4_MS	11.33	65	95080	10.07 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.71%		
48) SS Toluene-d8_MS	14.65	98	334910	9.93 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.29%		
65) SS 4-BFB_MS	18.13	95	129505	9.81 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.07%		
83) SS 1,2-DCB-d4_MS	19.75	152	139473	10.18 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.77%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
6) chloroethane	4.11	64	27841	4.737 ug/L	96
8) diethyl ether	5.02	59	78622	11.904 ug/L #	87
11) acetone	5.39	43	5778	2.831 ug/L #	67
13) tert-Butyl Alcohol(TBA)	5.77	59	5324	7.455 ug/L <RL	97
15) methylene chloride	6.55	84	1957	0.223 ug/L	100
16) carbon disulfide	6.57	76	10438	0.418 ug/L #	85
18) Methyl-t-butyl ether(MTBE)	6.86	73	6066	0.262 ug/L #	85
27) 2-butanone(MEK)	8.96	43	980	0.261 ug/L #	59
29) Tetrahydrofuran(THF)	10.16	42	7432	2.943 ug/L <RL	97
37) benzene	11.55	78	28637	0.763 ug/L	98
41) 1,4-dioxaneV	13.49	88	1354	14.851 ug/L #<RL	87
57) chlorobenzene	16.74	112	83757	3.018 ug/L	100
70) trans-1,4-dichloro-2-buten	18.13	75	61590	~~29.994~~ ug/L #	2
78) 1,3-dichlorobenzeneV	~~19.42~~	146	18833	~~0.869~~ ug/L	92
80) 1,4-dichlorobenzeneV	19.42	146	18833	0.871 ug/L #	87
81) 1,2-dichlorobenzeneV	19.78	146	5896	0.292 ug/L #	70

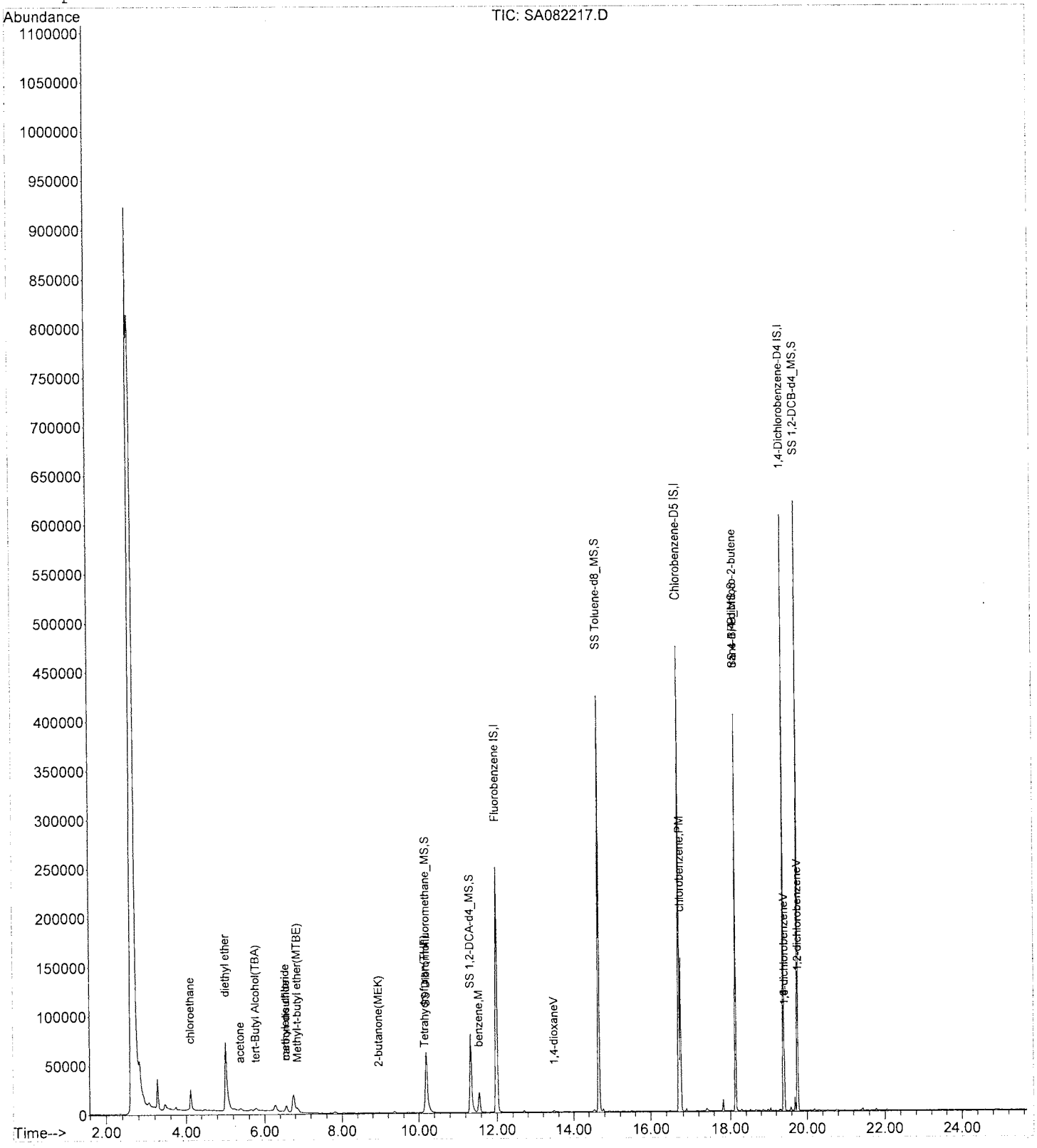
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082217.D Vial: 17
Acq On : 22 Aug 2013 4:52 pm Operator: BAM
Sample : 123704.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082218.D Vial: 18
Acq On : 22 Aug 2013 5:26 pm Operator: BAM
Sample : 123704.02MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:44 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	326467	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264785	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	141717	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78734	10.24	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.37%			
35) SS 1,2-DCA-d4_MS	11.33	65	88732	9.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.62%			
48) SS Toluene-d8_MS	14.65	98	329492	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.08%			
65) SS 4-BFB_MS	18.13	95	130660	9.93	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.35%			
83) SS 1,2-DCB-d4_MS	19.75	152	142896	10.10	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.00%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	230664	22.168	ug/L	100
3) chloromethane	3.19	50	211253	22.767	ug/L	100
4) vinyl chloride	3.34	62	91971	22.189	ug/L	100
5) bromomethane	3.99	94	108107	21.791	ug/L	99
6) chloroethane	4.11	64	150228	26.272	ug/L	99
7) trichlorofluoromethane	4.52	101	256365	20.904	ug/L	99
8) diethyl ether	5.02	59	216829	33.748	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	182010	21.522	ug/L	100
10) acrolein	5.27	56	15161	22.235	ug/L	91
11) acetone	5.38	43	40408	20.355	ug/L	96
12) 1,1-dichloroethene	5.61	96	162919	20.163	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.77	59	68228	98.212	ug/L	99
14) Iodomethane	6.20	142	225752	20.437	ug/L #	100
15) methylene chloride	6.55	84	174944	20.448	ug/L	99
16) carbon disulfide	6.57	76	471158	19.411	ug/L	99
17) acrylonitrile	6.82	53	64526	18.217	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	458971	20.385	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	186993	21.486	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	622483	20.610	ug/L	100
22) vinyl acetate	8.05	43	164389	10.610	ug/L	99
23) 1,1-dichloroethane	8.05	63	339420	21.165	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	538137	20.172	ug/L	99
25) 2,2-dichloropropane	9.25	77	249861	20.584	ug/L	99
26) cis-1,2-dichloroethene	9.36	61	291253	23.208	ug/L	95
27) 2-butanone(MEK)	8.96	43	68019	18.617	ug/L	98
28) bromochloromethane	10.08	128	95416	20.718	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	53755	21.878	ug/L	97
30) chloroform	9.71	83	320642	20.719	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	270459	20.897	ug/L	100
33) carbon tetrachloride	11.17	117	230916	20.853	ug/L	99
34) 1,1-dichloropropene	10.96	75	263668	20.681	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	476059	20.326	ug/L #	59
37) benzene	11.55	78	835646	22.874	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082218.D Vial: 18
Acq On : 22 Aug 2013 5:26 pm Operator: BAM
Sample : 123704.02MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:44 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	251134	20.329 ug/L	99
39) trichloroethene	12.73	95	201244	20.390 ug/L	99
40) 1,2-dichloropropane	13.05	63	196131	21.337 ug/L	98
41) 1,4-dioxaneV	13.49	88	3979	44.863 ug/L	94
42) dibromomethane	13.53	93	108649	20.772 ug/L	99
43) bromodichloromethane	13.44	83	217883	19.846 ug/L	99
44) 2-Chloroethoxyethene	13.98	63	94	~~6.320~~ ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	57930	20.127 ug/L	89
46) cis-1,3-dichloropropene	14.30	75	296853	22.482 ug/L	98
49) toluene	14.77	91	888889	21.866 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	252873	20.187 ug/L #	77
51) 1,1,2-trichloroethane	15.25	83	135054	21.040 ug/L	98
52) 2-hexanone	15.25	43	102182	19.795 ug/L	99
53) tetrachloroethene	15.67	166	238037	21.266 ug/L	99
54) 1,3-dichloropropane	15.60	76	283889	20.050 ug/L	86
55) dibromochloromethane	15.95	129	164419	18.381 ug/L #	100
56) 1,2-dibromoethane	16.22	107	164224	20.333 ug/L	100
57) chlorobenzene	16.74	112	671212	24.282 ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	181853	21.601 ug/L	99
59) ethylbenzene	16.79	91	1018113	21.849 ug/L	100
60) mp-xylene	16.89	106	815827	42.345 ug/L	99
61) o-xylene	17.41	106	389153	21.631 ug/L	99
62) styrene	17.46	104	664714	22.418 ug/L	100
63) bromoform	17.89	173	95741	17.732 ug/L #	93
64) iso-propylbenzene	17.83	105	1031308	24.209 ug/L	99
67) bromobenzene	18.38	156	245337	20.768 ug/L	99
68) 1,1,2,2-tetrachloroethane	18.04	83	194855	20.679 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	58629	19.493 ug/L	98
70) trans-1,4-dichloro-2-buten	18.26	75	73143	34.368 ug/L #	83
71) n-propylbenzene	18.28	91	1215737	22.762 ug/L	100
72) 2-chlorotoluene	18.51	91	701162	21.115 ug/L	100
73) 4-chlorotoluene	18.56	91	721887	21.681 ug/L	100
74) 1,3,5-trimethylbenzene	18.46	105	838242	22.050 ug/L	100
75) tert-butylbenzene	18.84	119	741391	21.976 ug/L	99
76) 1,2,4-trimethylbenzene	18.89	105	846058	21.837 ug/L	99
77) sec-butylbenzene	19.06	105	1054731	22.474 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	479672	21.447 ug/L	99
79) p-isopropyltoluene	19.19	119	912725	22.781 ug/L	100
80) 1,4-dichlorobenzeneV	19.42	146	498141	22.328 ug/L	99
81) 1,2-dichlorobenzeneV	19.78	146	443126	21.257 ug/L	99
82) n-butylbenzene	19.58	91	771635	22.648 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	34167	17.807 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	283651	21.551 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	228549	20.506 ug/L	99
87) hexachlorobutadieneV	21.56	225	94210	18.861 ug/L	99
88) naphthaleneV	21.76	128	579593	20.611 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	196588	20.459 ug/L	99

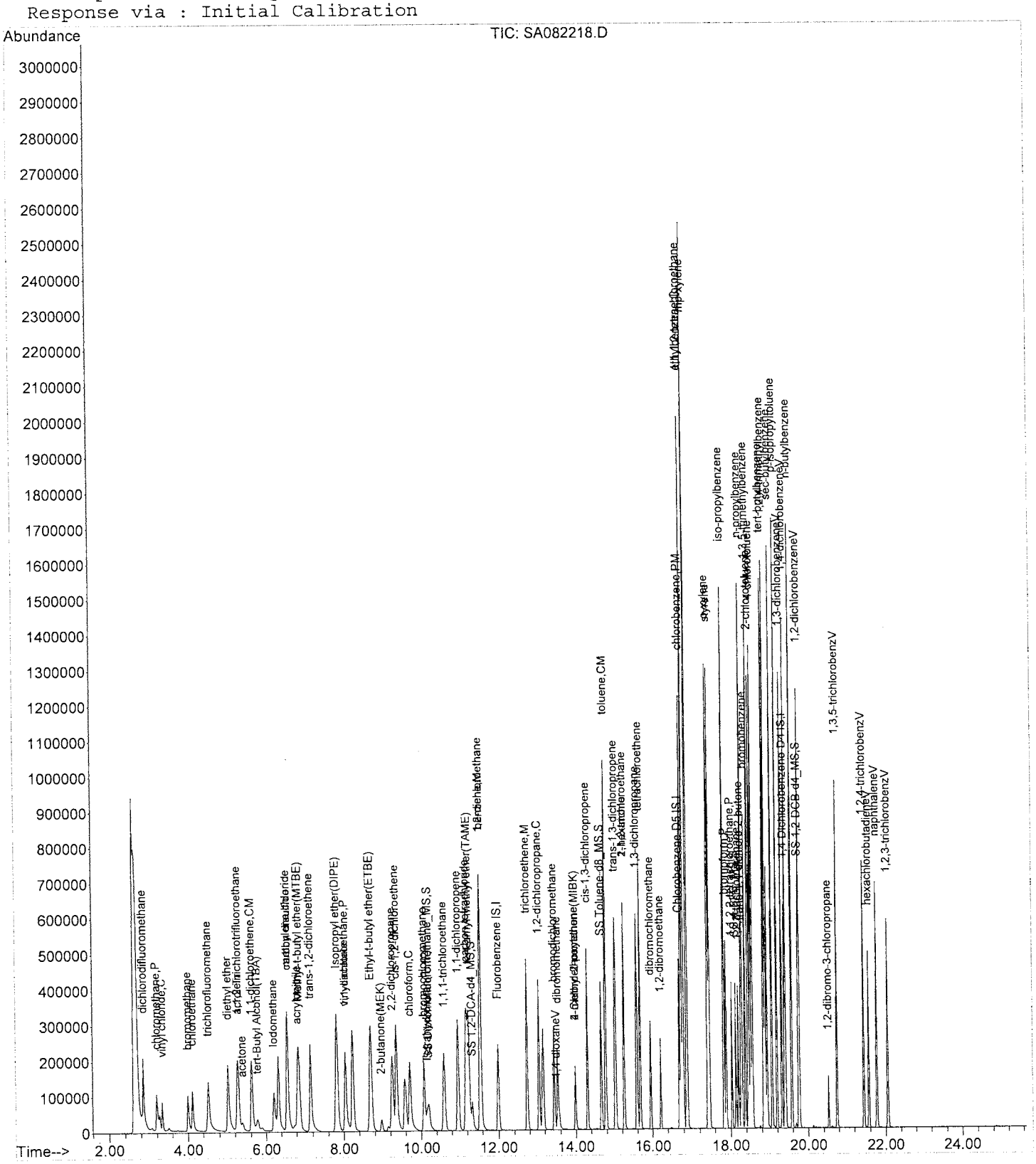
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082218.D Vial: 18
Acq On : 22 Aug 2013 5:26 pm Operator: BAM
Sample : 123704.02MS Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082219.D Vial: 19
Acq On : 22 Aug 2013 6:00 pm Operator: BAM
Sample : 123704.02MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	342177	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	274408	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	146777	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	82024	10.18	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.75%			
35) SS 1,2-DCA-d4_MS	11.33	65	92145	9.57	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.73%			
48) SS Toluene-d8_MS	14.65	98	346513	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.53%			
65) SS 4-BFB_MS	18.13	95	135467	9.94	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.39%			
83) SS 1,2-DCB-d4_MS	19.75	152	148964	10.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.66%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	227093	20.822	ug/L	100
3) chloromethane	3.19	50	207658	21.352	ug/L	100
4) vinyl chloride	3.34	62	90979	20.910	ug/L	100
5) bromomethane	3.99	94	112205	21.579	ug/L	98
6) chloroethane	4.11	64	150333	25.083	ug/L	98
7) trichlorofluoromethane	4.52	101	254054	19.764	ug/L	100
8) diethyl ether	5.02	59	217356	32.276	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.27	101	181102	20.431	ug/L	100
10) acrolein	5.27	56	14828	20.748	ug/L	90
11) acetone	5.39	43	37726	18.131	ug/L	95
12) 1,1-dichloroethene	5.61	96	162895	19.235	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	67406	92.574	ug/L	95
14) Iodomethane	6.20	142	226161	19.524	ug/L #	99
15) methylene chloride	6.55	84	175296	19.549	ug/L	99
16) carbon disulfide	6.57	76	470450	18.492	ug/L	99
17) acrylonitrile	6.81	53	65254	17.576	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	458813	19.443	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	186995	20.500	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	621775	19.642	ug/L	100
22) vinyl acetate	8.05	43	161360	9.936	ug/L	99
23) 1,1-dichloroethane	8.05	63	338315	20.128	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	537403	19.220	ug/L	100
25) 2,2-dichloropropane	9.25	77	246132	19.346	ug/L	100
26) cis-1,2-dichloroethene	9.35	61	289292	21.994	ug/L	96
27) 2-butanone(MEK)	8.96	43	67359	17.590	ug/L	98
28) bromochloromethane	10.08	128	95981	19.884	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	54300	21.085	ug/L	96
30) chloroform	9.71	83	319808	19.716	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	269275	19.851	ug/L	100
33) carbon tetrachloride	11.17	117	230550	19.864	ug/L	99
34) 1,1-dichloropropene	10.96	75	262763	19.664	ug/L	98
36) tert-amyl methyl ether(TAM	11.23	73	475901	19.386	ug/L #	60
37) benzene	11.55	78	832242	21.734	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082219.D Vial: 19
Acq On : 22 Aug 2013 6:00 pm Operator: BAM
Sample : 123704.02MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	248245	19.172 ug/L	99
39)	trichloroethene	12.73	95	199157	19.253 ug/L	99
40)	1,2-dichloropropane	13.05	63	195391	20.280 ug/L	98
41)	1,4-dioxaneV	13.49	88	3896	41.910 ug/L #	88
42)	dibromomethane	13.53	93	107255	19.564 ug/L	99
43)	bromodichloromethane	13.44	83	215557	18.733 ug/L	100
44)	2-Chloroethoxyethene	13.99	63	75	~~6.308~~ ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	57369	19.017 ug/L	88
46)	cis-1,3-dichloropropene	14.30	75	295168	21.328 ug/L	98
49)	toluene	14.77	91	882685	20.952 ug/L	100
50)	trans-1,3-dichloropropene	15.03	75	251622	19.383 ug/L #	78
51)	1,1,2-trichloroethane	15.25	83	132752	19.956 ug/L	98
52)	2-hexanone	15.25	43	101748	19.020 ug/L	99
53)	tetrachloroethene	15.67	166	236189	20.361 ug/L	99
54)	1,3-dichloropropane	15.60	76	282207	19.232 ug/L	87
55)	dibromochloromethane	15.95	129	164643	17.773 ug/L #	100
56)	1,2-dibromoethane	16.22	107	162222	19.381 ug/L	99
57)	chlorobenzene	16.74	112	668658	23.341 ug/L	99
58)	1,1,1,2-tetrachloroethane	16.79	131	180924	20.737 ug/L	99
59)	ethylbenzene	16.79	91	1007404	20.861 ug/L	100
60)	mp-xylene	16.89	106	810043	40.570 ug/L	99
61)	o-xylene	17.41	106	386308	20.720 ug/L	99
62)	styrene	17.46	104	665329	21.652 ug/L	100
63)	bromoform	17.89	173	95806	17.169 ug/L #	93
64)	iso-propylbenzene	17.83	105	1027505	23.274 ug/L	100
67)	bromobenzene	18.38	156	241045	19.701 ug/L	100
68)	1,1,2,2-tetrachloroethane	18.04	83	193011	19.777 ug/L	99
69)	1,2,3-trichloropropane	18.21	110	58096	18.650 ug/L	99
70)	trans-1,4-dichloro-2-buten	18.26	75	72158	32.780 ug/L #	84
71)	n-propylbenzene	18.28	91	1211817	21.906 ug/L	100
72)	2-chlorotoluene	18.51	91	693485	20.164 ug/L	100
73)	4-chlorotoluene	18.56	91	714482	20.719 ug/L	100
74)	1,3,5-trimethylbenzene	18.46	105	828021	21.030 ug/L	99
75)	tert-butylbenzene	18.84	119	738589	21.138 ug/L	99
76)	1,2,4-trimethylbenzene	18.89	105	838375	20.893 ug/L	99
77)	sec-butylbenzene	19.06	105	1048772	21.576 ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	474054	20.465 ug/L	100
79)	p-isopropyltoluene	19.19	119	905144	21.813 ug/L	100
80)	1,4-dichlorobenzeneV	19.42	146	499698	21.626 ug/L	99
81)	1,2-dichlorobenzeneV	19.78	146	439664	20.364 ug/L	100
82)	n-butylbenzene	19.58	91	760635	21.555 ug/L	100
84)	1,2-dibromo-3-chloropropan	20.52	157	34031	17.171 ug/L	98
85)	1,3,5-trichlorobenzV	20.75	180	282149	20.698 ug/L	100
86)	1,2,4-trichlorobenzV	21.44	180	228464	19.792 ug/L	99
87)	hexachlorobutadieneV	21.56	225	93469	18.068 ug/L	99
88)	naphthaleneV	21.76	128	583480	20.034 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	196266	19.721 ug/L	99

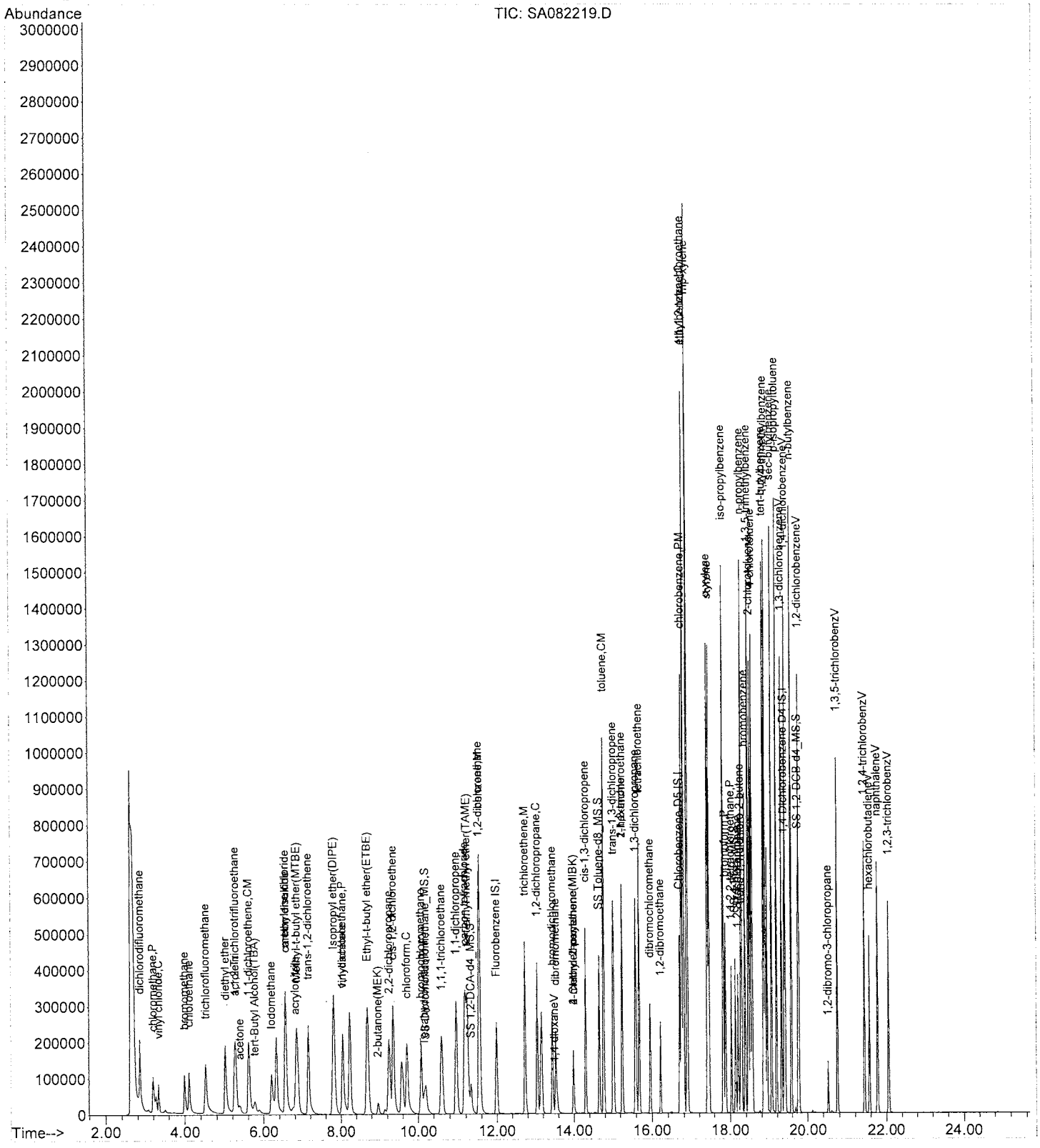
Brian 8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082219.D Vial: 19
Acq On : 22 Aug 2013 6:00 pm Operator: BAM
Sample : 123704.02MSD Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082220.D Vial: 20
Acq On : 22 Aug 2013 6:35 pm Operator: BAM
Sample : 123704.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:52 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	337895	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268113	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137359	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77985	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.97%			
35) SS 1,2-DCA-d4_MS	11.33	65	94690	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.62%			
48) SS Toluene-d8_MS	14.65	98	334885	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.45%			
65) SS 4-BFB_MS	18.13	95	129801	9.75	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.47%			
83) SS 1,2-DCB-d4_MS	19.75	152	140812	10.27	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.69%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
6) chloroethane	4.11	64	27770	4.692	ug/L	97
8) diethyl ether	5.02	59	79781	11.997	ug/L #	82
10) acrolein	5.27	56	148	0.210	ug/L #	1
11) acetone	5.38	43	4912	2.391	ug/L	93
13) tert-Butyl Alcohol(TBA)	5.78	59	5737	7.979	ug/L <RL	92
15) methylene chloride	6.54	84	2021	0.228	ug/L	96
16) carbon disulfide	6.57	76	10979	0.437	ug/L #	82
18) Methyl-t-butyl ether(MTBE)	6.85	73	6459	0.277	ug/L #	82
27) 2-butanone(MEK)	8.98	43	935	0.247	ug/L #	65
29) Tetrahydrofuran(THF)	10.16	42	7339	2.886	ug/L <RL	99
37) benzene	11.55	78	25076	0.663	ug/L	98
41) 1,4-dioxaneV	13.49	88	1239	13.497	ug/L #	72
57) chlorobenzene	16.74	112	86027	3.073	ug/L <RL	99
70) trans-1,4-dichloro-2-buten	18.13	75	61555	29.962	ug/L #	2
78) 1,3-dichlorobenzeneV	~~19.42~~	146	19654	~~0.907~~	ug/L	91
80) 1,4-dichlorobenzeneV	19.42	146	19654	0.909	ug/L #	87
81) 1,2-dichlorobenzeneV	19.78	146	6869	0.340	ug/L #	1
86) 1,2,4-trichlorobenzV	21.44	180	2823	0.261	ug/L	98
87) hexachlorobutadieneV	21.57	225	1437	0.297	ug/L	95
88) naphthaleneV	21.76	128	7970	0.292	ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	2901	0.311	ug/L	97

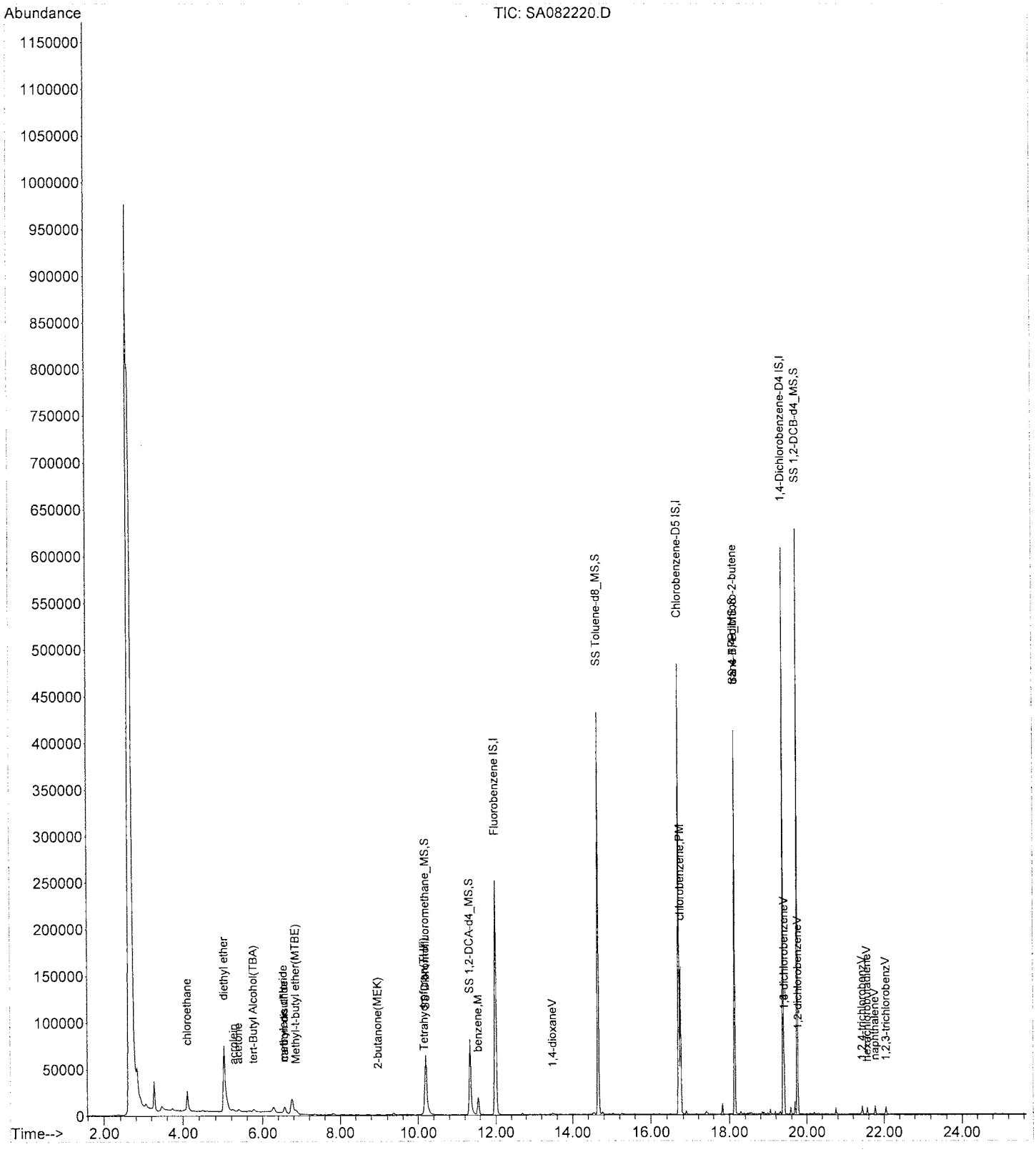
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082220.D Vial: 20
Acq On : 22 Aug 2013 6:35 pm Operator: BAM
Sample : 123704.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082221.D Vial: 21
Acq On : 22 Aug 2013 7:09 pm Operator: BAM
Sample : 123704.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21:56 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329307	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	260841	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133790	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	76339	9.84 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.40%		
35) SS 1,2-DCA-d4_MS	11.33	65	92040	9.94 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.35%		
48) SS Toluene-d8_MS	14.65	98	328974	9.94 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.41%		
65) SS 4-BFB_MS	18.13	95	127327	9.83 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.28%		
83) SS 1,2-DCB-d4_MS	19.75	152	136887	10.25 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.49%		
90) SS 2,5-DBT_MS	0.00	250	0	0.00 ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#		
Target Compounds					Qvalue
11) acetone	5.39	43	3309	1.652 ug/L #	82
16) carbon disulfide	6.57	76	10165	0.415 ug/L #	76
70) trans-1,4-dichloro-2-buten	18.13	75	60533	~~30.242~~ ug/L #	2

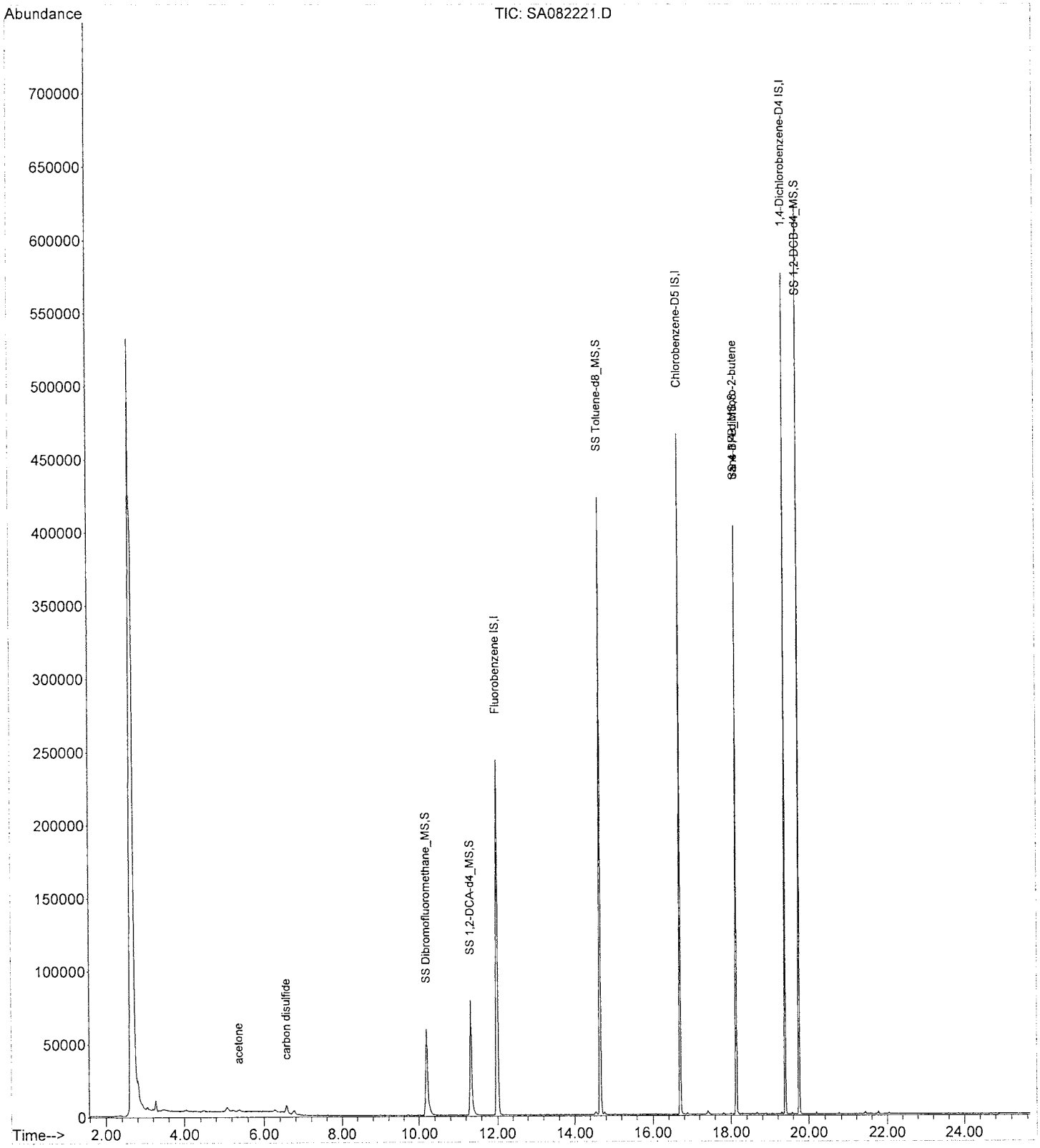
B 8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082221.D Vial: 21
Acq On : 22 Aug 2013 7:09 pm Operator: BAM
Sample : 123704.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:21 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082222.D Vial: 22
Acq On : 22 Aug 2013 7:44 pm Operator: BAM
Sample : 123704.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:22:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	326374	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	262224	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135545	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76289	9.92	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.22%			
35) SS 1,2-DCA-d4_MS	11.33	65	94785	10.32	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.24%			
48) SS Toluene-d8_MS	14.65	98	330560	9.94	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.36%			
65) SS 4-BFB_MS	18.13	95	127146	9.76	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.62%			
83) SS 1,2-DCB-d4_MS	19.75	152	138382	10.23	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.27%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
11) acetone	5.39	43	3942	1.986	ug/L	93
13) tert-Butyl Alcohol(TBA)	5.77	59	502	0.723	ug/L #	1
16) carbon disulfide	6.57	76	11097	0.457	ug/L #	84
29) Tetrahydrofuran(THF)	10.17	42	788	0.321	ug/L #	46
70) trans-1,4-dichloro-2-buten	18.13	75	60278	~~< 29.741~~	ug/L #	2

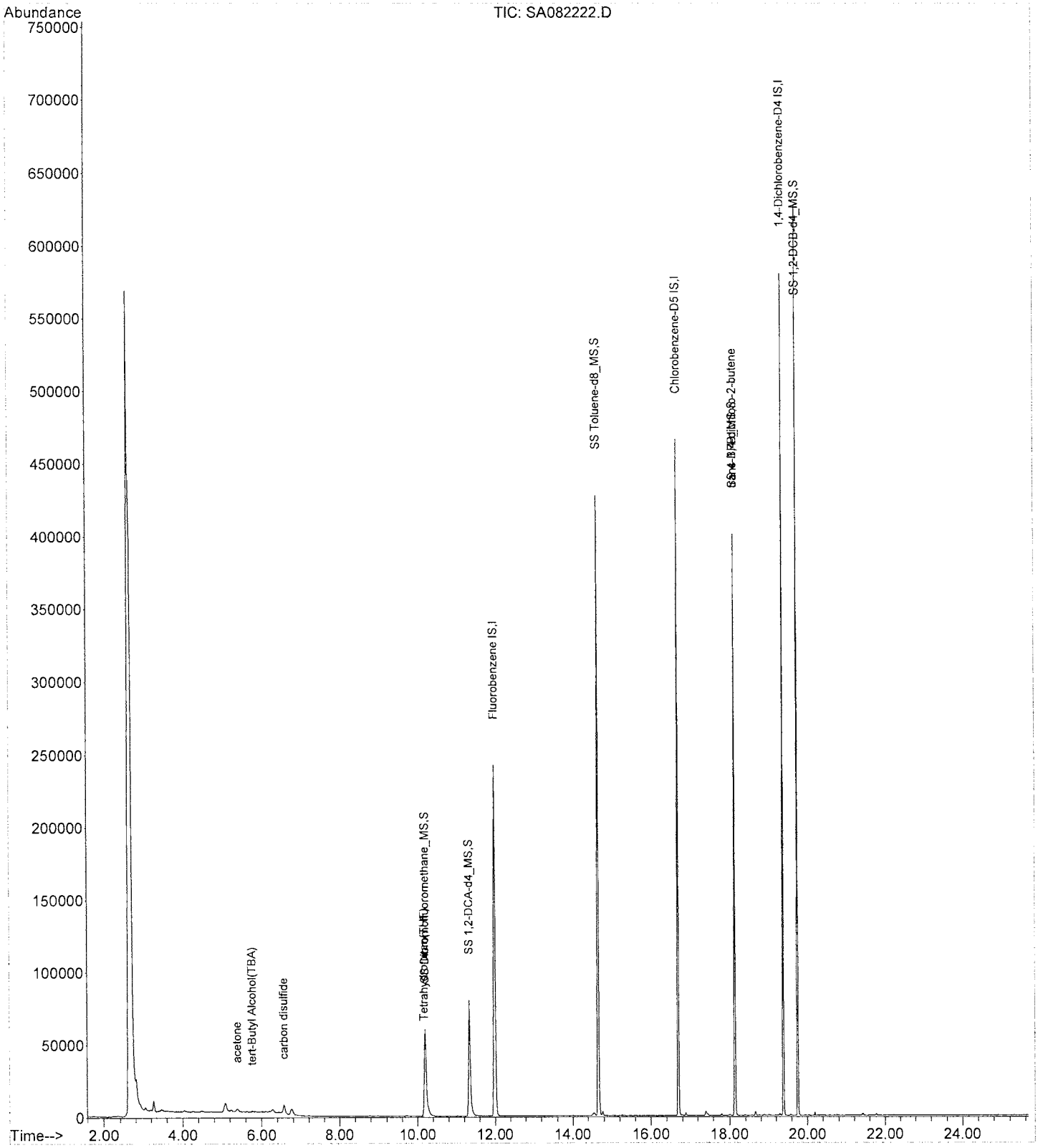
8/23/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2213\SA082222.D Vial: 22
Acq On : 22 Aug 2013 7:44 pm Operator: BAM
Sample : 123704.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:22 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:17:18 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	326175	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264476	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	143058	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79435	10.34	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.37%			
35) SS 1,2-DCA-d4_MS	11.33	65	89654	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.71%			
48) SS Toluene-d8_MS	14.65	98	330562	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.52%			
65) SS 4-BFB_MS	18.13	95	131897	10.04	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.41%			
83) SS 1,2-DCB-d4_MS	19.75	152	144123	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.92%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	211512	20.345	ug/L	99
3) chloromethane	3.19	50	178136	19.215	ug/L	99
4) vinyl chloride	3.33	62	81955	19.728	ug/L	100
5) bromomethane	3.99	94	88583	17.872	ug/L	97
6) chloroethane	4.10	64	111422	19.503	ug/L	99
7) trichlorofluoromethane	4.52	101	231615	18.903	ug/L	99
8) diethyl ether	5.02	59	136812	21.313	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	159149	18.836	ug/L	99
10) acrolein	5.27	56	17572	25.794	ug/L	94
11) acetone	5.38	43	43825	22.096	ug/L	98
12) 1,1-dichloroethene	5.61	96	142977	17.711	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.78	59	76175	109.749	ug/L	98
14) Iodomethane	6.20	142	196917	17.813	ug/L #	99
15) methylene chloride	6.55	84	164823	19.283	ug/L	99
16) carbon disulfide	6.57	76	411682	16.976	ug/L	98
17) acrylonitrile	6.82	53	72991	20.625	ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.85	73	472781	21.018	ug/L	99
19) trans-1,2-dichloroethene	7.14	96	172753	19.868	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	601103	19.920	ug/L	100
22) vinyl acetate	8.05	43	176507	11.402	ug/L	99
23) 1,1-dichloroethane	8.04	63	318002	19.847	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	529433	19.864	ug/L	99
25) 2,2-dichloropropane	9.25	77	208046	17.155	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	275580	21.979	ug/L	95
27) 2-butanone(MEK)	8.97	43	82179	22.513	ug/L	98
28) bromochloromethane	10.08	128	93896	20.406	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	57047	23.238	ug/L	97
30) chloroform	9.71	83	304953	19.723	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	248041	19.182	ug/L	99
33) carbon tetrachloride	11.17	117	208908	18.883	ug/L	99
34) 1,1-dichloropropene	10.96	75	240495	18.880	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	488527	20.877	ug/L #	55
37) benzene	11.55	78	758061	20.768	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:17:18 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

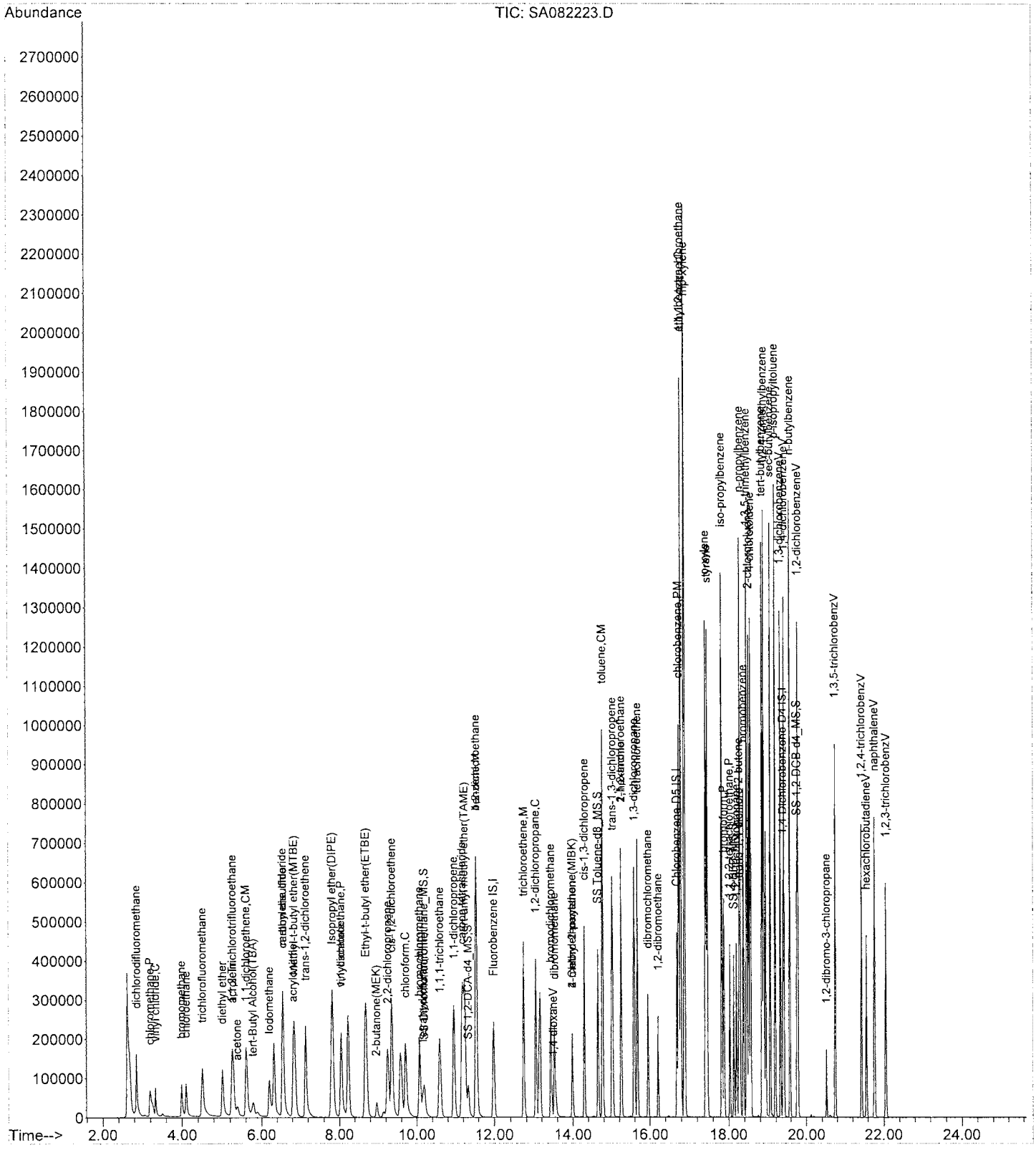
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	248806	20.158 ug/L	99
39) trichloroethene	12.73	95	185756	18.838 ug/L	99
40) 1,2-dichloropropane	13.05	63	188326	20.506 ug/L	98
41) 1,4-dioxaneV	13.50	88	2652m	29.928 ug/L	
42) dibromomethane	13.53	93	110700	21.183 ug/L	99
43) bromodichloromethane	13.44	83	210514	19.192 ug/L	99
44) 2-Chloroethoxyethene	13.98	63	103	6.325 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.98	58	69309	24.102 ug/L	87
46) cis-1,3-dichloropropene	14.30	75	284902	21.597 ug/L	98
49) toluene	14.77	91	833033	20.516 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	248887	19.892 ug/L #	76
51) 1,1,2-trichloroethane	15.25	83	137447	21.438 ug/L	98
52) 2-hexanone	15.25	43	125252	24.293 ug/L	99
53) tetrachloroethene	15.67	166	221294	19.794 ug/L	98
54) 1,3-dichloropropane	15.59	76	289738	20.487 ug/L #	85
55) dibromochloromethane	15.95	129	165620	18.534 ug/L #	99
56) 1,2-dibromoethane	16.22	107	170960	21.192 ug/L	99
57) chlorobenzene	16.74	112	558140	20.215 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	174840	20.792 ug/L	99
59) ethylbenzene	16.79	91	948813	20.386 ug/L	99
60) mp-xylene	16.89	106	764086	39.706 ug/L	98
61) o-xylene	17.41	106	368062	20.483 ug/L	98
62) styrene	17.46	104	636611	21.495 ug/L	99
63) bromoform	17.88	173	102132	18.845 ug/L #	93
64) iso-propylbenzene	17.83	105	963280	22.639 ug/L	100
67) bromobenzene	18.38	156	235007	19.707 ug/L	100
68) 1,1,2,2-tetrachloroethane	18.03	83	213224	22.416 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	65482	21.567 ug/L	99
70) trans-1,4-dichloro-2-buten	18.26	75	77419	35.991 ug/L #	82
71) n-propylbenzene	18.28	91	1141119	21.164 ug/L	100
72) 2-chlorotoluene	18.51	91	667747	19.920 ug/L	100
73) 4-chlorotoluene	18.56	91	684360	20.362 ug/L	100
74) 1,3,5-trimethylbenzene	18.45	105	791252	20.619 ug/L	99
75) tert-butylbenzene	18.84	119	702652	20.632 ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	809562	20.700 ug/L	99
77) sec-butylbenzene	19.06	105	1000570	21.120 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	462541	20.487 ug/L	100
79) p-isopropyltoluene	19.18	119	865946	21.411 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	467076	20.740 ug/L	100
81) 1,2-dichlorobenzeneV	19.77	146	434803	20.662 ug/L	99
82) n-butylbenzene	19.58	91	727871	21.163 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	39661	20.292 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	282855	21.289 ug/L	100
86) 1,2,4-trichlorobenzV	21.44	180	234208	20.817 ug/L	99
87) hexachlorobutadieneV	21.56	225	89507	17.752 ug/L	99
88) naphthaleneV	21.76	128	642489	22.634 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	205209	21.156 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082223.D Vial: 23
Acq On : 22 Aug 2013 8:18 pm Operator: BAM
Sample : LCSaA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:18 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	343058	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	277201	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	149184	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	82157	10.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.65%			
35) SS 1,2-DCA-d4_MS	11.33	65	94685	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.11%			
48) SS Toluene-d8_MS	14.65	98	347437	9.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.79%			
65) SS 4-BFB_MS	18.13	95	137421	9.98	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.81%			
83) SS 1,2-DCB-d4_MS	19.75	152	151229	10.15	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.54%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	219142	20.042	ug/L	99
3) chloromethane	3.19	50	185947	19.070	ug/L	99
4) vinyl chloride	3.33	62	84584	19.348	ug/L	99
5) bromomethane	3.99	94	97039	18.614	ug/L	97
6) chloroethane	4.10	64	116627	19.409	ug/L	98
7) trichlorofluoromethane	4.52	101	241214	18.717	ug/L	99
8) diethyl ether	5.02	59	140244	20.772	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	165712	18.647	ug/L	100
10) acrolein	5.27	56	16873	23.549	ug/L	87
11) acetone	5.39	43	46737	22.405	ug/L	98
12) 1,1-dichloroethene	5.61	96	149478	17.605	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.78	59	80701	110.548	ug/L	98
14) Iodomethane	6.20	142	204973	17.627	ug/L #	99
15) methylene chloride	6.55	84	168836	18.780	ug/L	98
16) carbon disulfide	6.57	76	426064	16.704	ug/L	100
17) acrylonitrile	6.82	53	76984	20.683	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	491898	20.791	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	180608	19.749	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	626582	19.743	ug/L	100
22) vinyl acetate	8.05	43	183865	11.293	ug/L	99
23) 1,1-dichloroethane	8.04	63	332031	19.703	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	556307	19.845	ug/L	99
25) 2,2-dichloropropane	9.25	77	213649	16.750	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	287039	21.766	ug/L	95
27) 2-butanone(MEK)	8.97	43	85319	22.223	ug/L	98
28) bromochloromethane	10.08	128	97684	20.184	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	59213	22.934	ug/L	97
30) chloroform	9.71	83	314890	19.363	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	257573	18.939	ug/L	99
33) carbon tetrachloride	11.17	117	221237	19.013	ug/L	99
34) 1,1-dichloropropene	10.96	75	249760	18.643	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	508098	20.645	ug/L #	55
37) benzene	11.55	78	787783	20.521	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

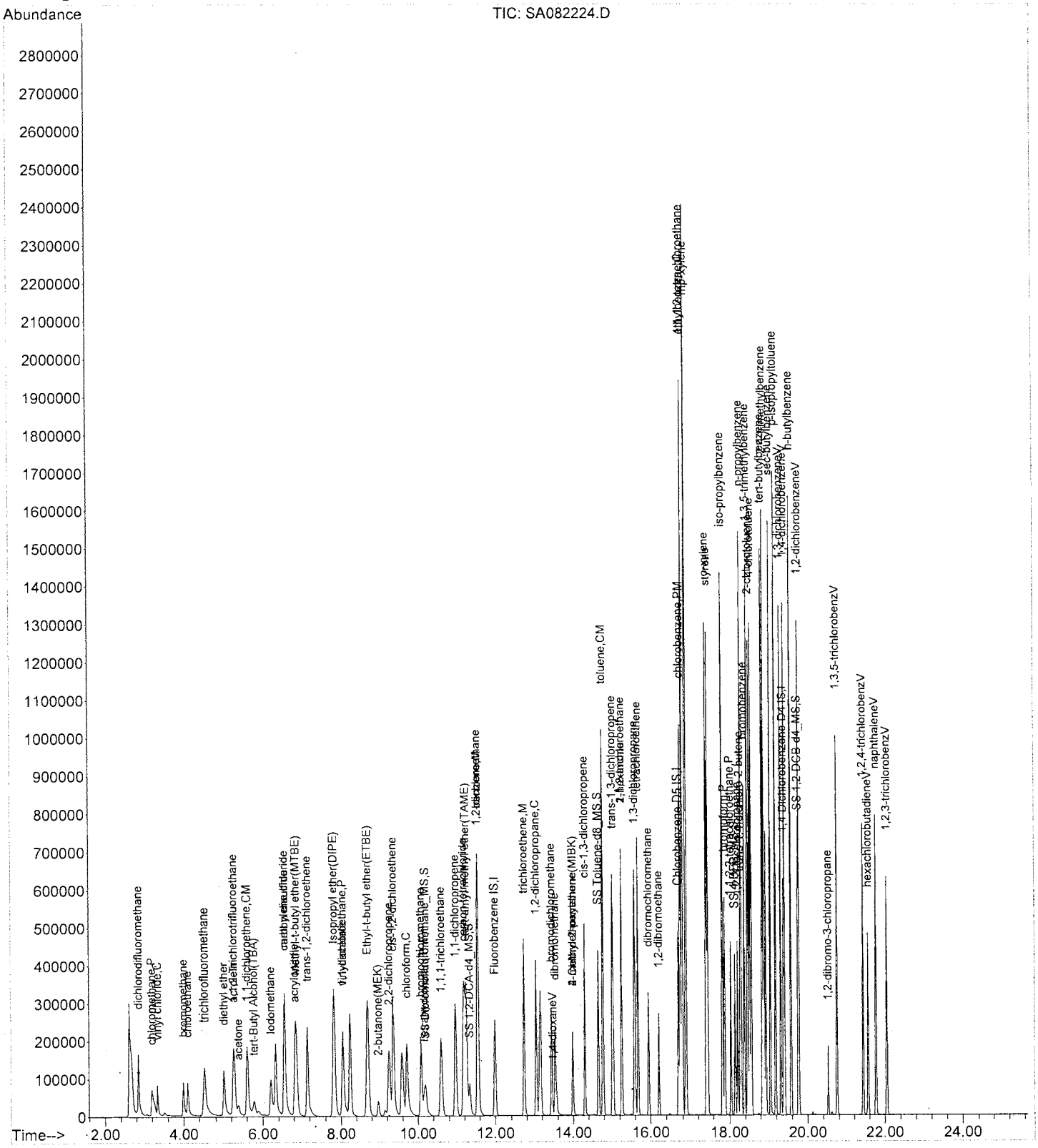
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	256254	19.740 ug/L	99
39) trichloroethene	12.73	95	193964	18.702 ug/L	99
40) 1,2-dichloropropane	13.05	63	196090	20.300 ug/L	97
41) 1,4-dioxaneV	13.48	88	2804m	30.086 ug/L	
42) dibromomethane	13.53	93	113777	20.700 ug/L	99
43) bromodichloromethane	13.44	83	217982	18.895 ug/L	99
44) 2-Chloroethoxyethene	13.99	63	172	6.358 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	71974	23.797 ug/L	88
46) cis-1,3-dichloropropene	14.30	75	294345	21.214 ug/L	98
49) toluene	14.77	91	862510	20.267 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	259095	19.757 ug/L #	76
51) 1,1,2-trichloroethane	15.25	83	141655	21.080 ug/L	98
52) 2-hexanone	15.25	43	130391	24.128 ug/L	99
53) tetrachloroethene	15.67	166	228662	19.514 ug/L	99
54) 1,3-dichloropropane	15.59	76	298704	20.151 ug/L #	85
55) dibromochloromethane	15.95	129	172041	18.372 ug/L #	100
56) 1,2-dibromoethane	16.22	107	175594	20.767 ug/L	100
57) chlorobenzene	16.74	112	577221	19.946 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.78	131	182049	20.656 ug/L	99
59) ethylbenzene	16.79	91	983345	20.158 ug/L	99
60) mp-xylene	16.89	106	790552	39.195 ug/L	98
61) o-xylene	17.41	106	379343	20.142 ug/L	99
62) styrene	17.46	104	656874	21.161 ug/L	100
63) bromoform	17.88	173	106131	18.696 ug/L #	92
64) iso-propylbenzene	17.83	105	992398	22.252 ug/L	99
67) bromobenzene	18.38	156	244287	19.644 ug/L	99
68) 1,1,2,2-tetrachloroethane	18.03	83	222032	22.383 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	67063	21.181 ug/L	98
70) trans-1,4-dichloro-2-buten	18.26	75	80791	36.016 ug/L #	81
71) n-propylbenzene	18.28	91	1186026	21.094 ug/L	100
72) 2-chlorotoluene	18.51	91	684658	19.586 ug/L	99
73) 4-chlorotoluene	18.56	91	704080	20.088 ug/L	100
74) 1,3,5-trimethylbenzene	18.45	105	822166	20.545 ug/L	99
75) tert-butylbenzene	18.84	119	729405	20.538 ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	834218	20.454 ug/L	99
77) sec-butylbenzene	19.06	105	1037832	21.007 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	476720	20.248 ug/L	100
79) p-isopropyltoluene	19.18	119	904113	21.437 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	482626	20.550 ug/L	99
81) 1,2-dichlorobenzeneV	19.77	146	447793	20.406 ug/L	100
82) n-butylbenzene	19.58	91	762796	21.268 ug/L	100
84) 1,2-dibromo-3-chloropropan	20.52	157	42128	20.646 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	298810	21.567 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	245176	20.897 ug/L	99
87) hexachlorobutadieneV	21.56	225	94475	17.968 ug/L	100
88) naphthaleneV	21.76	128	675567	22.822 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	216559	21.409 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2213\SA082224.D Vial: 24
Acq On : 22 Aug 2013 8:53 pm Operator: BAM
Sample : LCSDA082213VNH823 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 13:19 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

Analyst: VG

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 5/10/23

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAIS1001	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMSID	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120526.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120612					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	17					VOC			
36	36	23					VOC			
37	37	24				↓	VOC			
38	38	120711.02				✓	VOC			
39	39	01		↓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/23

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

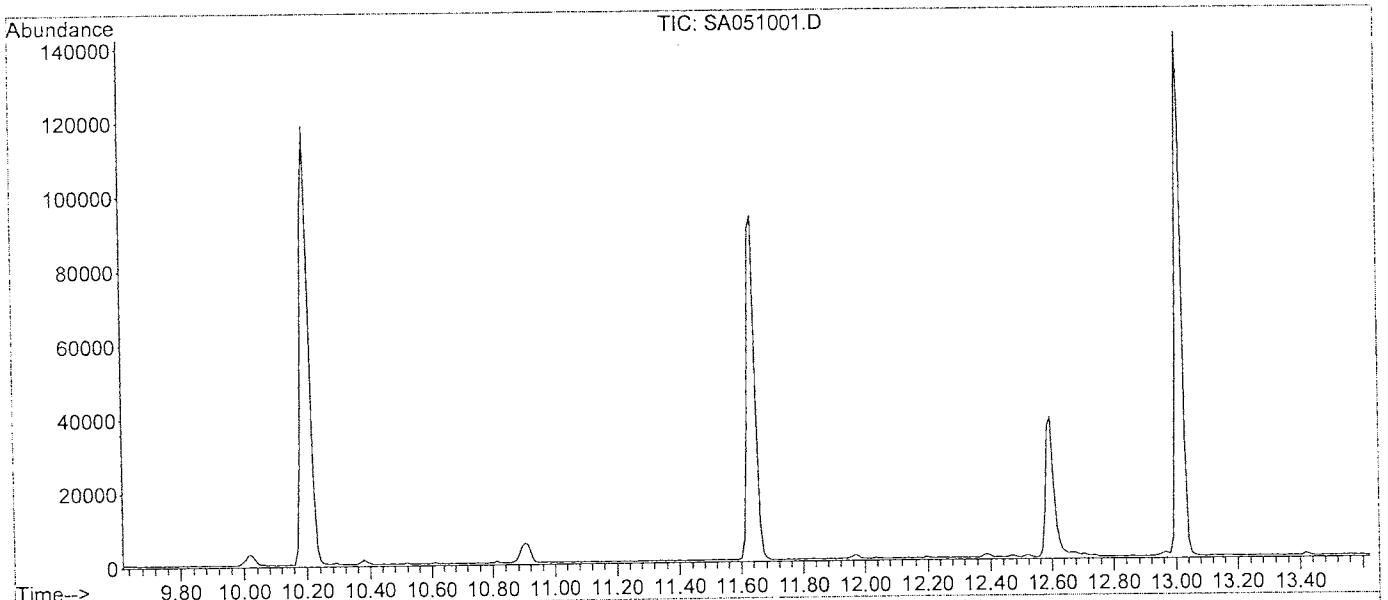
Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

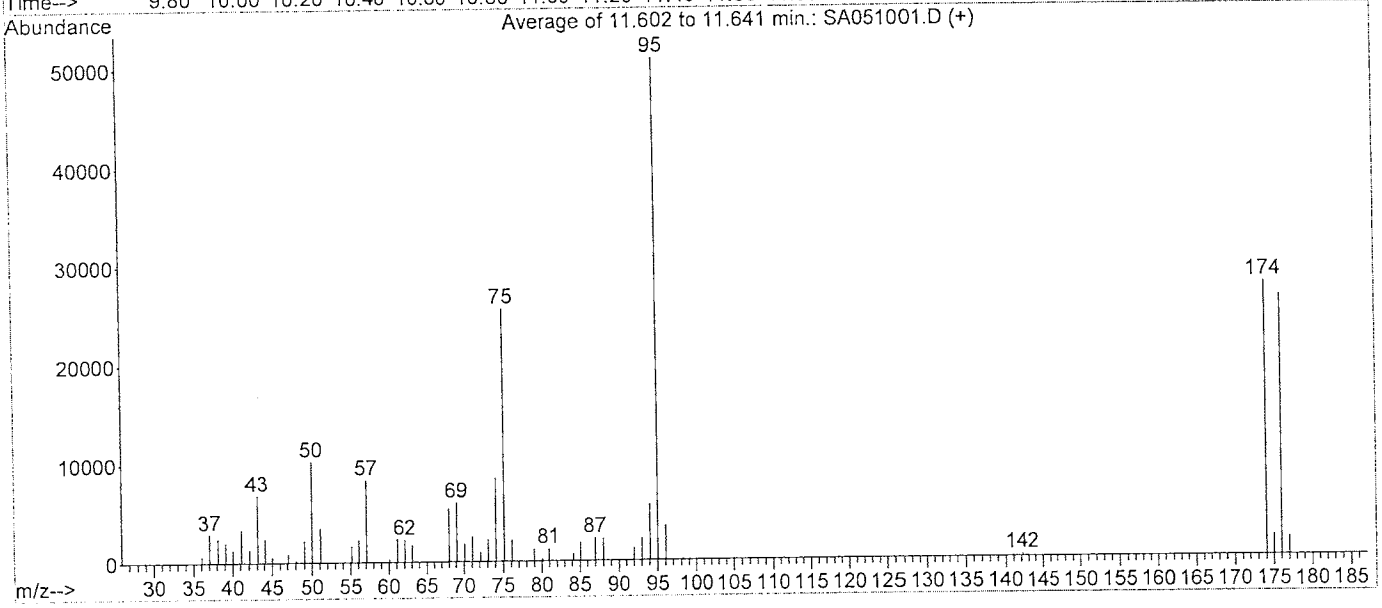
		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D
Acq On : 10 May 2013 1:42 pm
Sample : BFB
Misc : X1;5mL
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09

Vial: 1
Operator: VG
Inst : VOAMS2
Multiplr: 1.00





Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

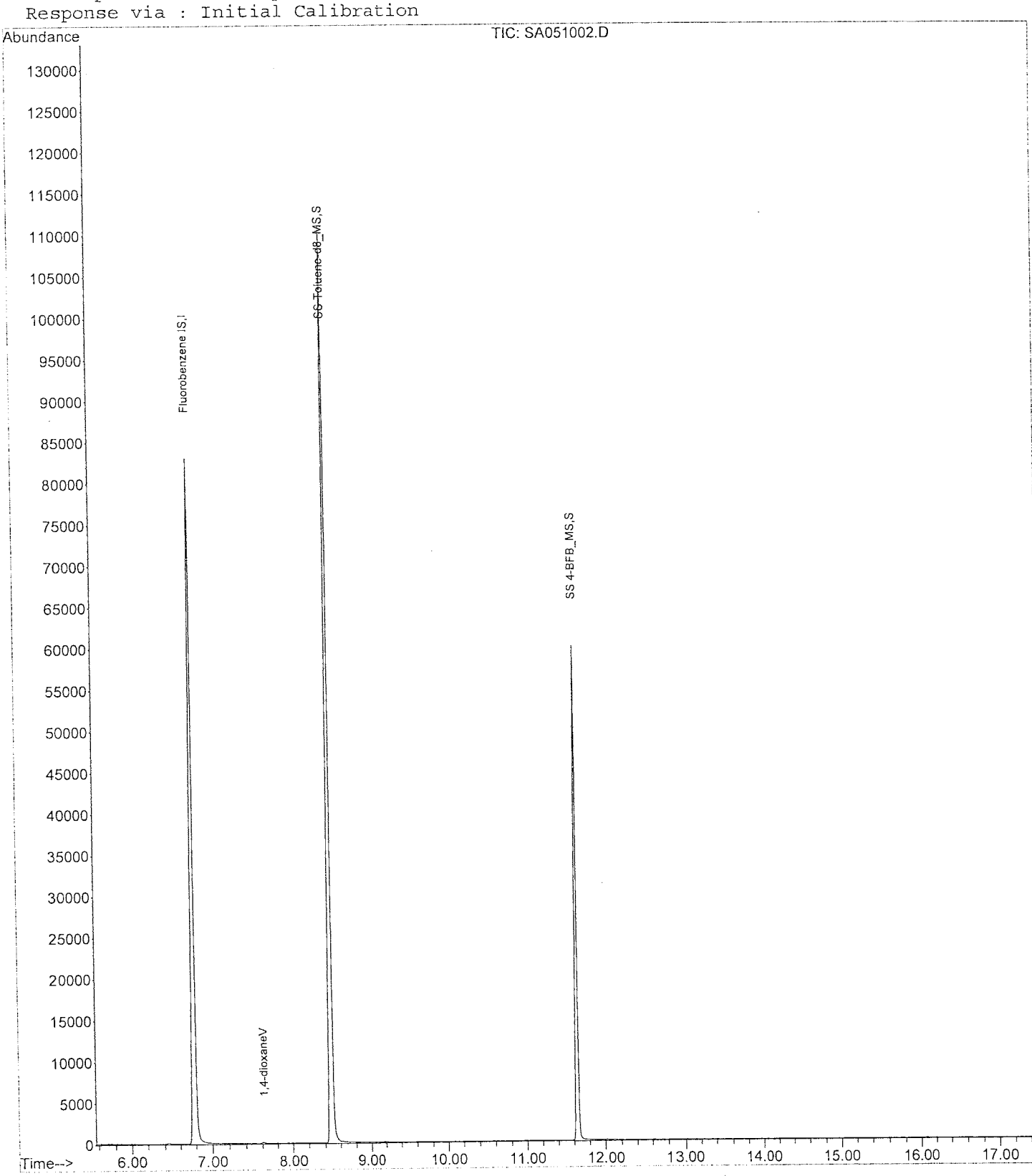
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	160084	9.79	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS		11.64	95	56746	10.12	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051002.D 2SIM0510.M Wed Aug 21 13:48:36 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

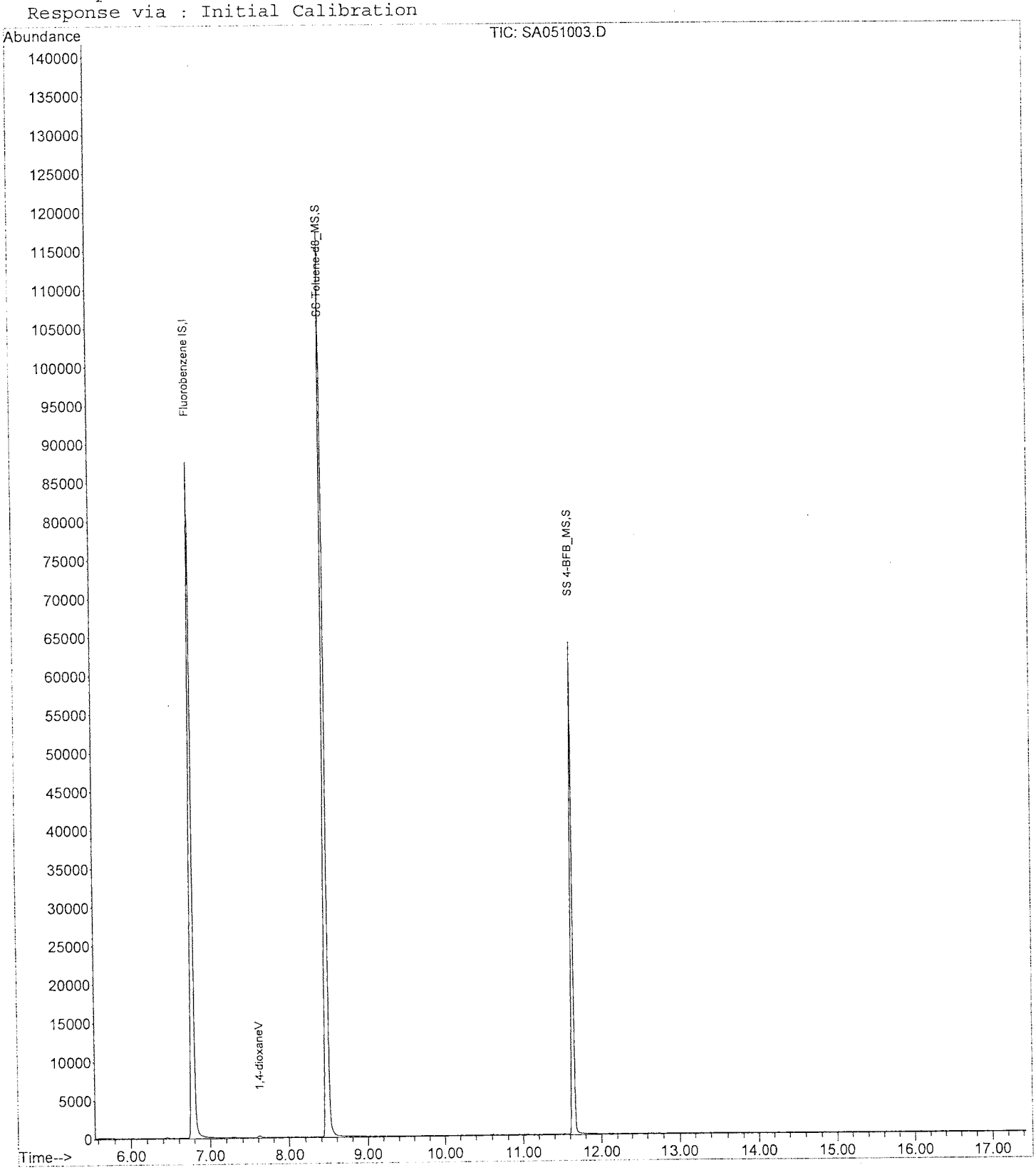
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

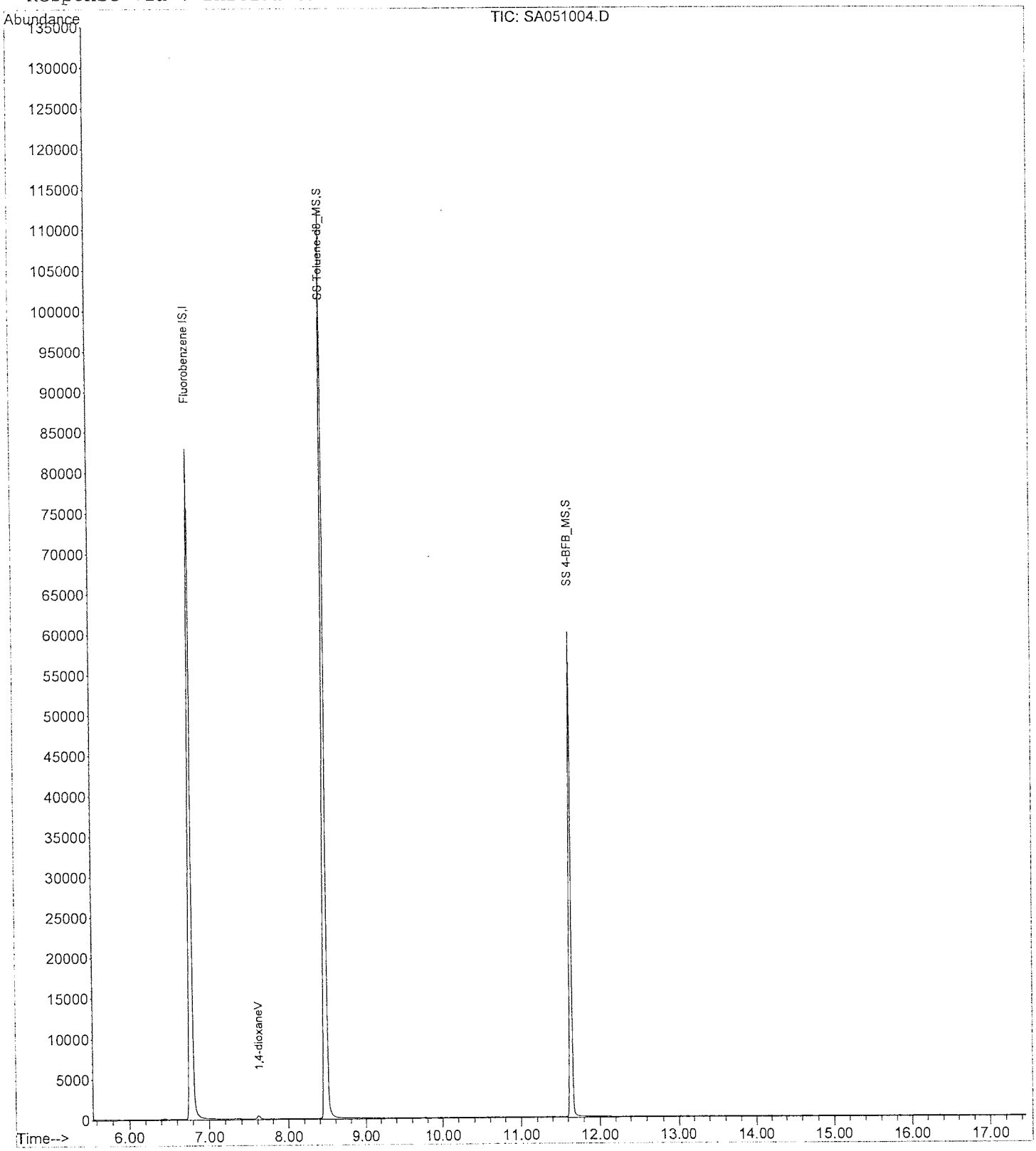
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

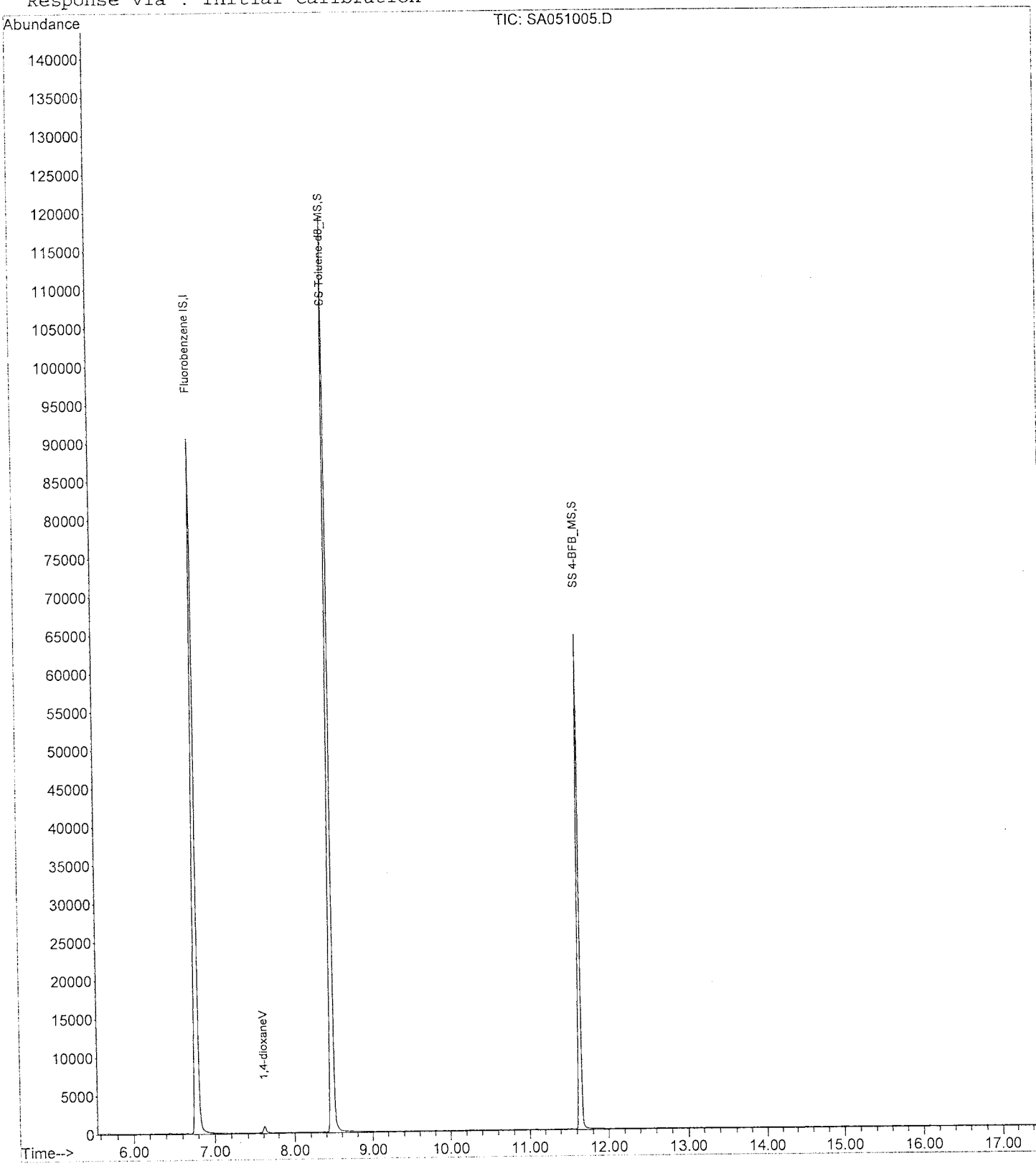
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	170943	9.68	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.75%		
4) SS 4-BFB_MS		11.64	95	59771	9.87	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.66%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

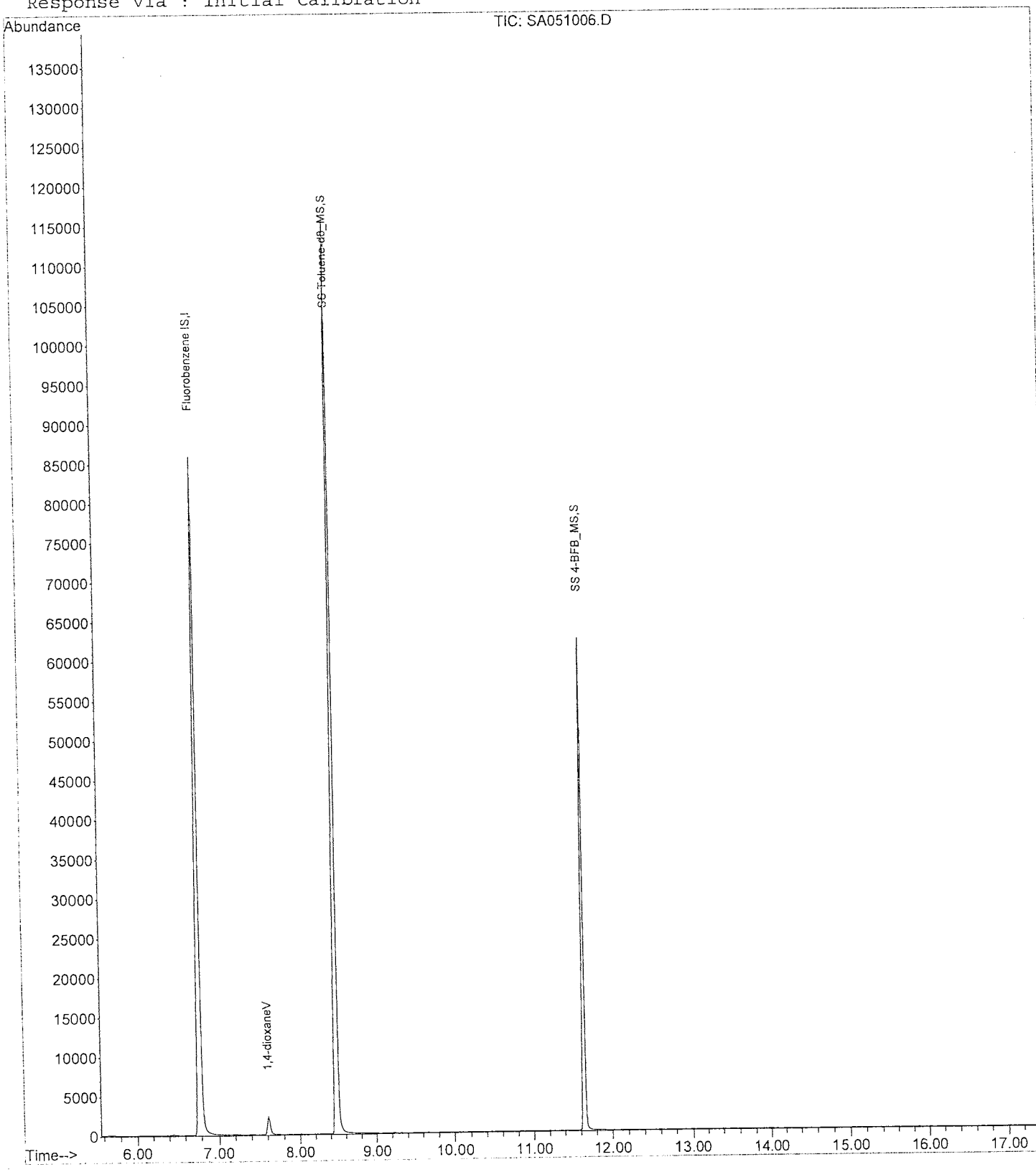
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

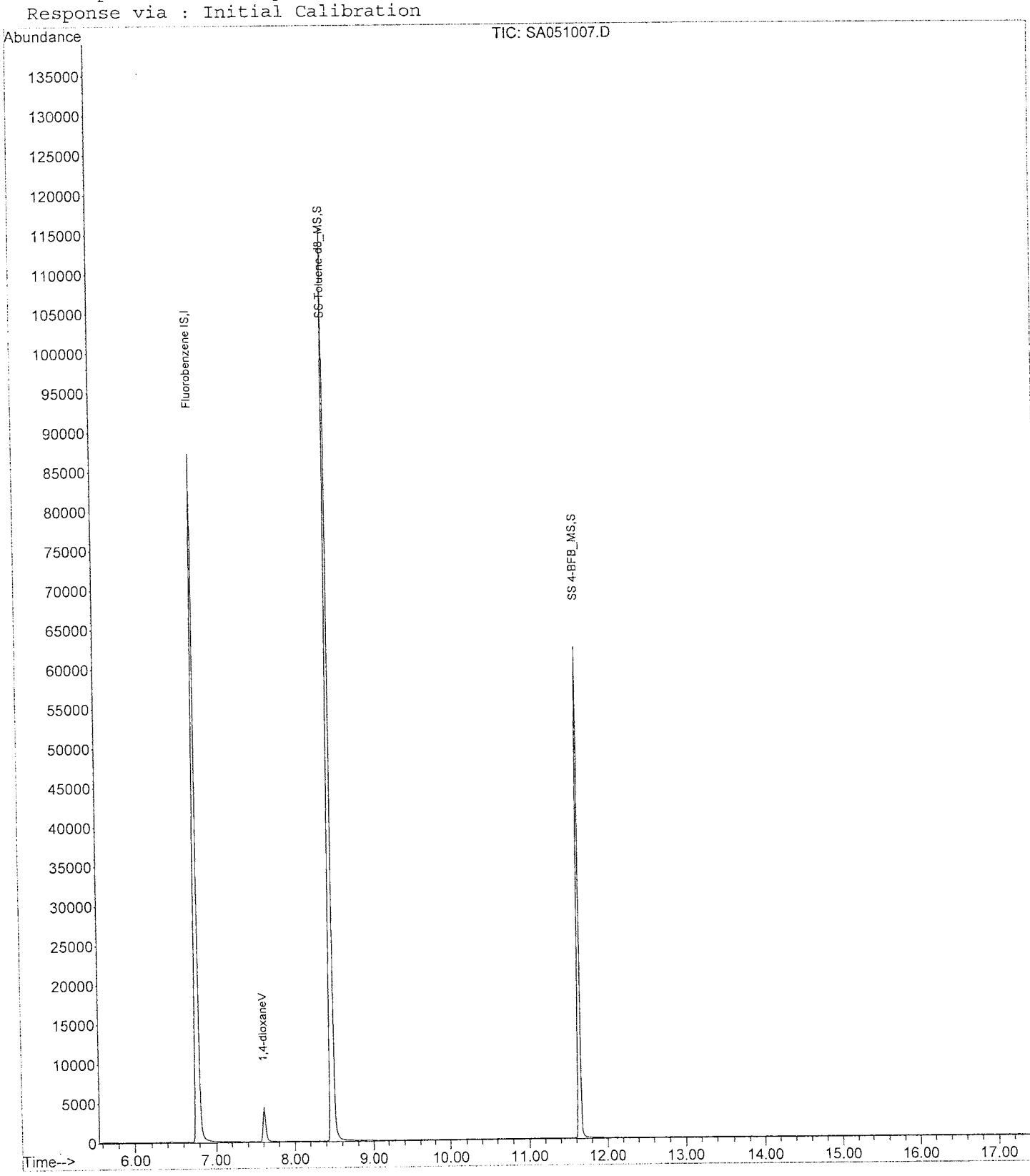
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	159671	9.27 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%		
4) SS 4-BFB_MS	11.64	95	58595	9.92 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530 ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

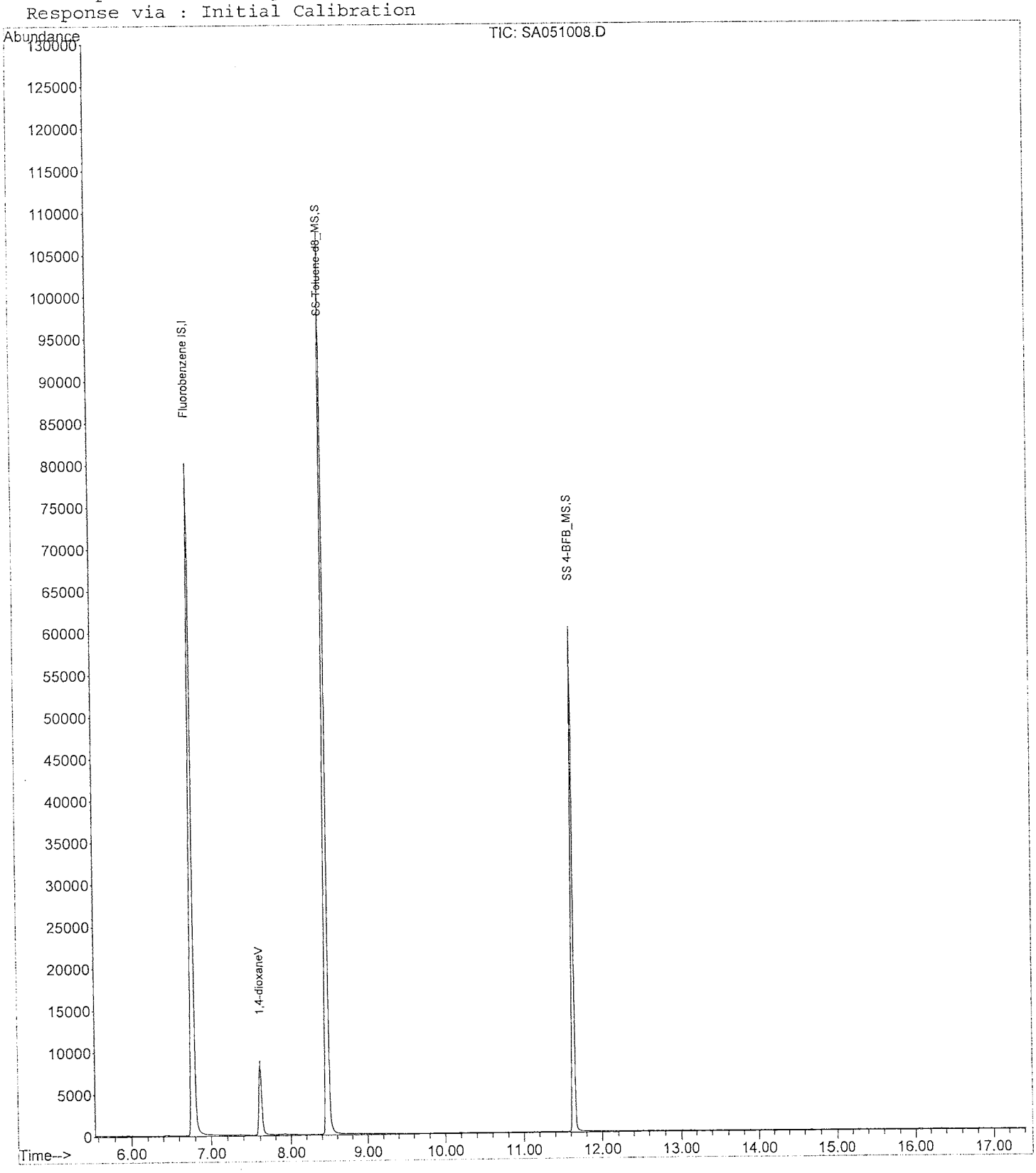
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	149017	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%			
4) SS 4-BFB_MS	11.64	95	55675	10.21	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051008.D 2SIM0510.M Wed Aug 21 13:49:57 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

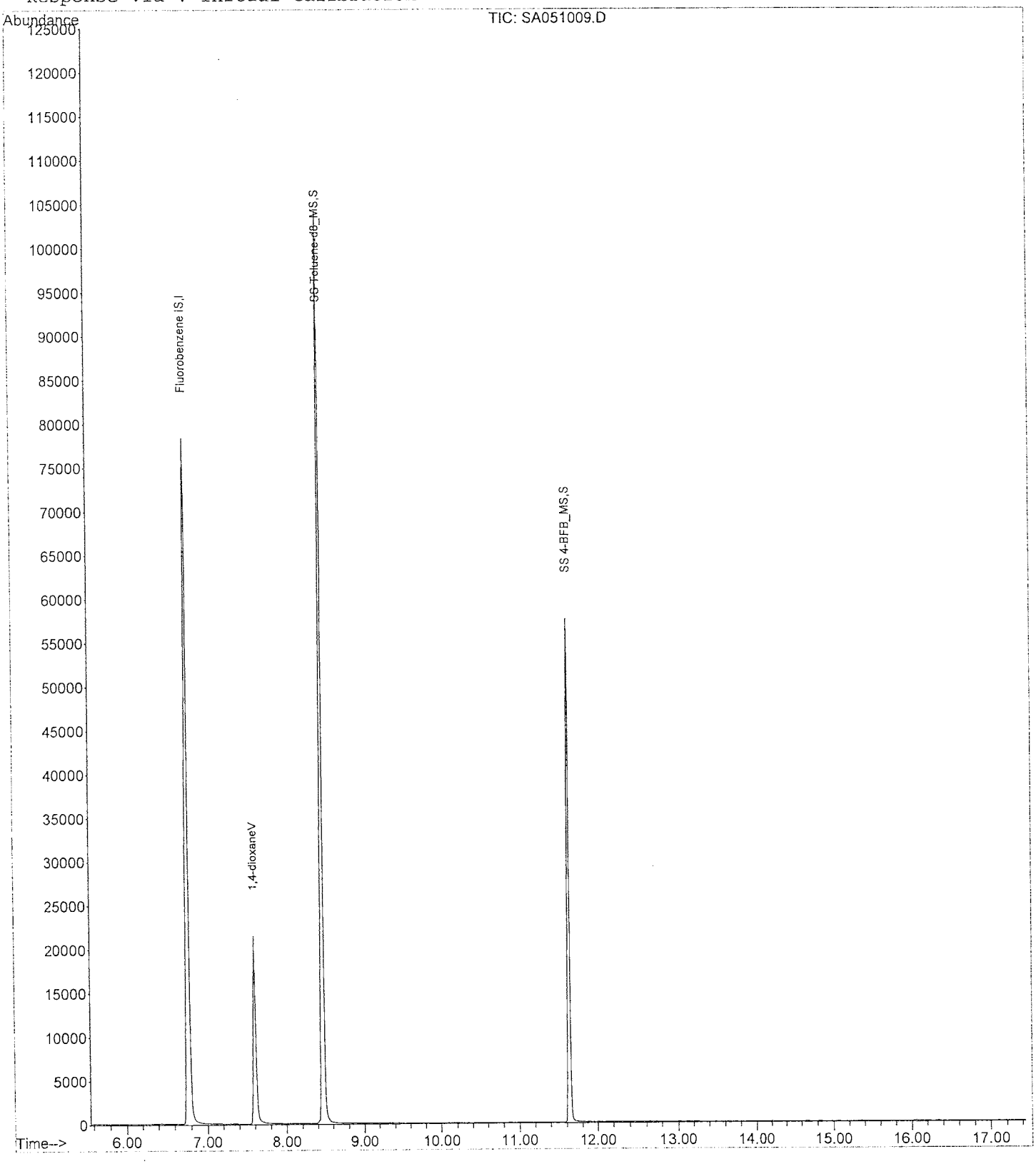
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	148830	9.89	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	98.93%		
4) SS 4-BFB_MS			11.63	95	52945	10.26	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	102.63%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

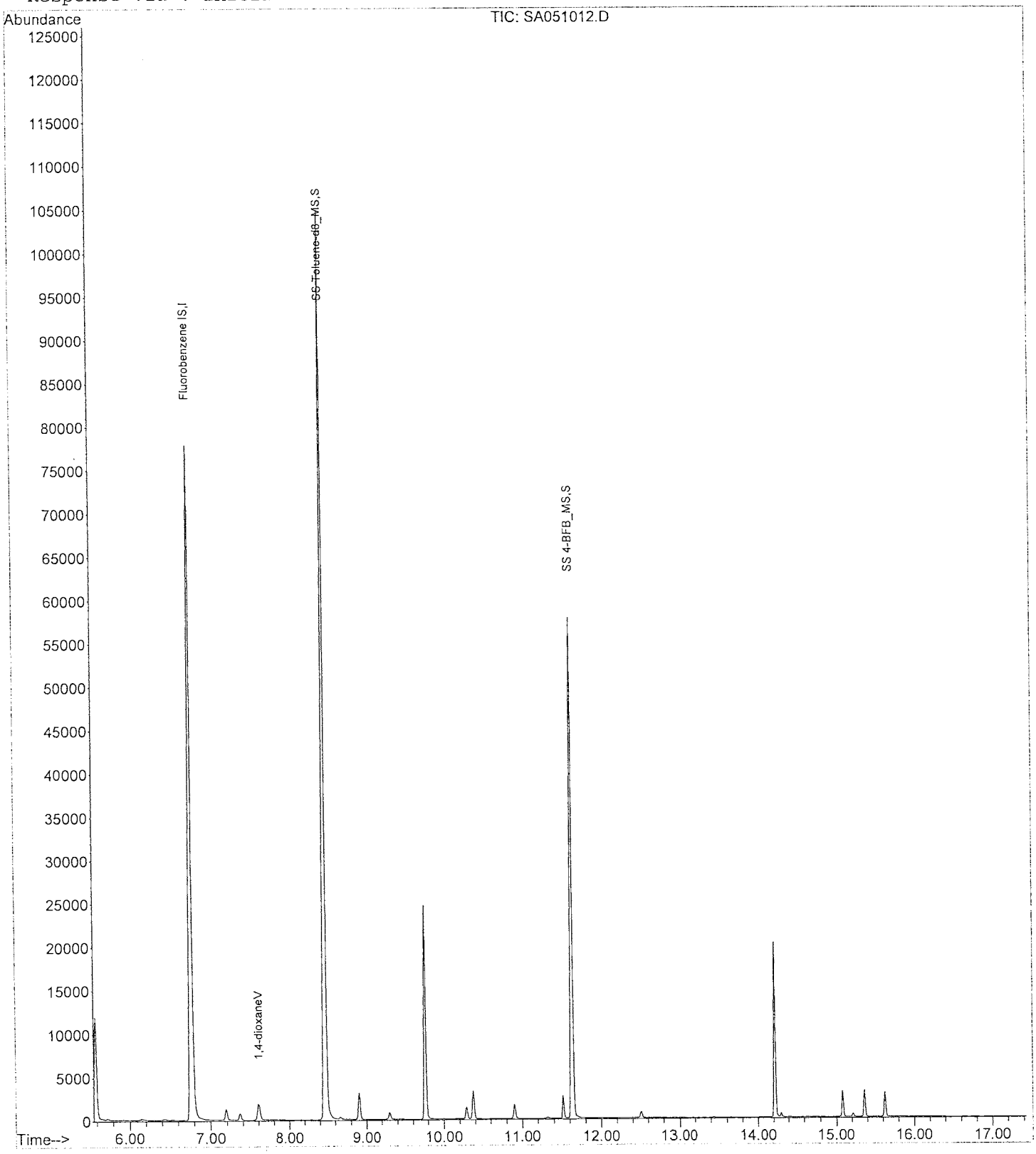
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.14%		
4) SS 4-BFB_MS			11.63	95	52679	10.31	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	103.13%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

Professional laboratory & drilling services

123704
1,4 Dioxane VOC 8260B SIM
Support Data

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VG

Date: 8/21/17

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	8210101	BFB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	25 MSD		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank				↓	VOC			
6	6	123649.06 MS				X10	VOC			
7	7	MSD				X10	VOC			
8	8	123650.01				X5	VOC			
9	9	03				X5	VOC			
10	10	04				X10	VOC			
11	11	06				X1	VOC			
12	12	123705.01					VOC			
13	13	07					VOC			
14	14	04					VOC			
15	15	05					VOC			
16	16	STD.25					VOC			
17	17	BFB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123705.06					VOC			
23	23	07					VOC			
24	24	08					VOC			
25	25	09					VOC			
26	26	10					VOC			
27	27	123704.06				↓	VOC			
28	28	02				X10	VOC			
29	29	03					VOC			
30	30	DUP					VOC			
31	31	DUP5		✓		↓	VOC			
							VOC			
							VOC			
							VOC			
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							VOC			
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							VOC			
							VOC			
							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by _____ 8/23/17

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2113\SA082117.D
Tune Time : 22 Aug 2013 12:29 am

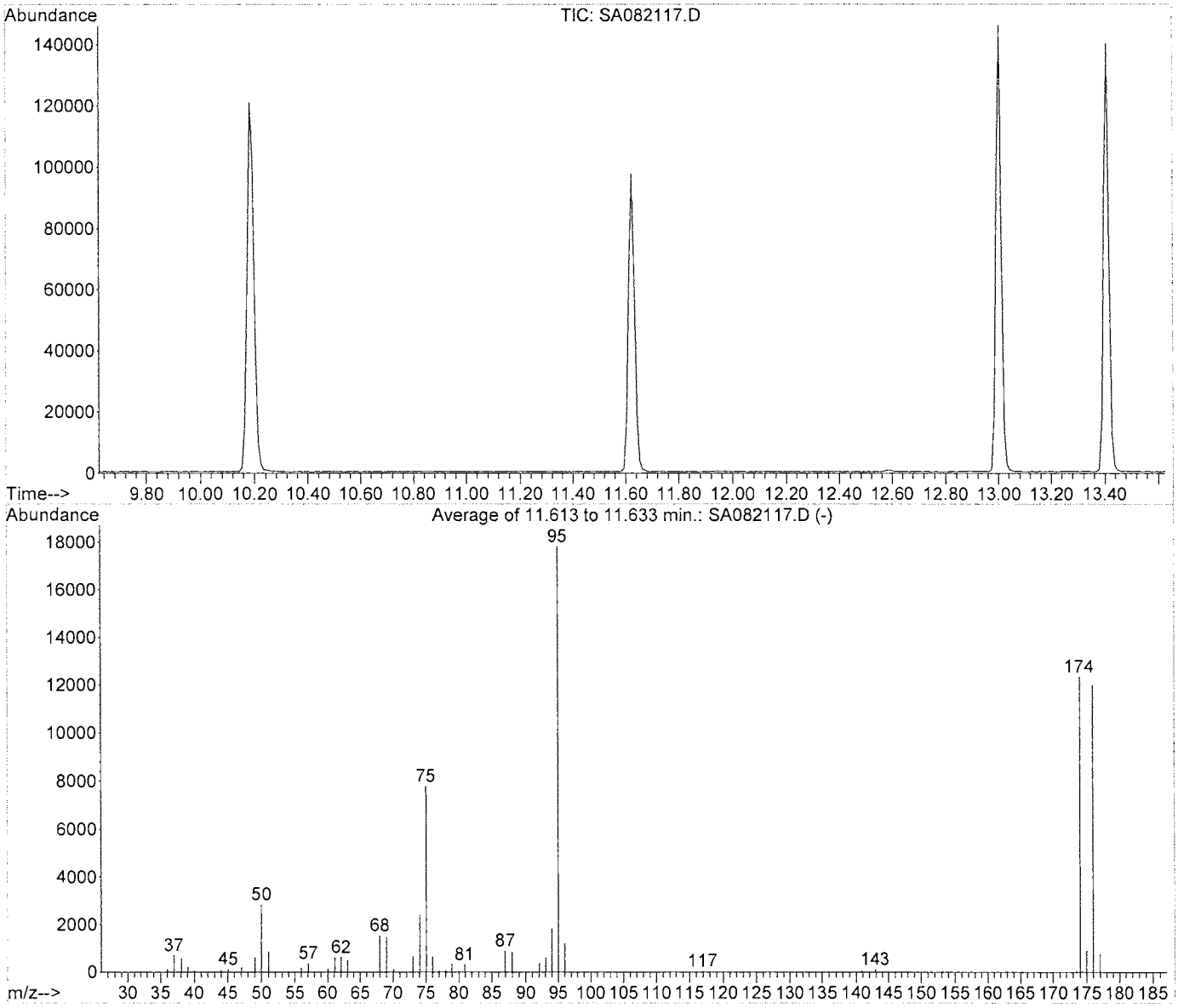
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D

			156150
File	Sample	Surrogate Recovery %	Internal Standard Responses
SA082118.D	STD5	97 112	156150
SA082119.D	LCS5	104 112	156838
SA082120.D	LCSD5	104 113	154886
SA082121.D	BLANK	104 114	154824
SA082122.D	123705.06	102 110	168472
SA082123.D	123705.07	98 110	169276
SA082124.D	123705.08	98 112	167072
SA082125.D	123705.09	99 114	163189
SA082126.D	123705.10	103 111	162464
SA082127.D	123704.06	99 113	160988
SA082128.D	123704.02	98 113	161698
SA082129.D	123704.03	99 113	160469
SA082130.D	123704.02M	104 112	160791
SA082131.D	123704.02M	105 115	155854

t - fails 12hr time check * - fails criteria

Created: Thu Aug 22 15:28:26 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082117.D Vial: 17
Acq On : 22 Aug 2013 12:29 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.613 to 11.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	2851	PASS
75	95	30	60	43.7	7793	PASS
95	95	100	100	100.0	17826	PASS
96	95	5	9	6.7	1200	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.3	12355	PASS
175	174	5	9	7.4	916	PASS
176	174	95	101	97.3	12018	PASS
177	176	5	9	6.4	768	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	98	-0.01
2		1,4-dioxaneV	5.000	4.979	0.4	97	0.00
3	S	SS Toluene-d8_MS	10.000	9.691	3.1	94	-0.01
4	S	SS 4-BFB_MS	10.000	11.203	-12.0	111	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Fri Aug 23 12:57:40 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:25 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

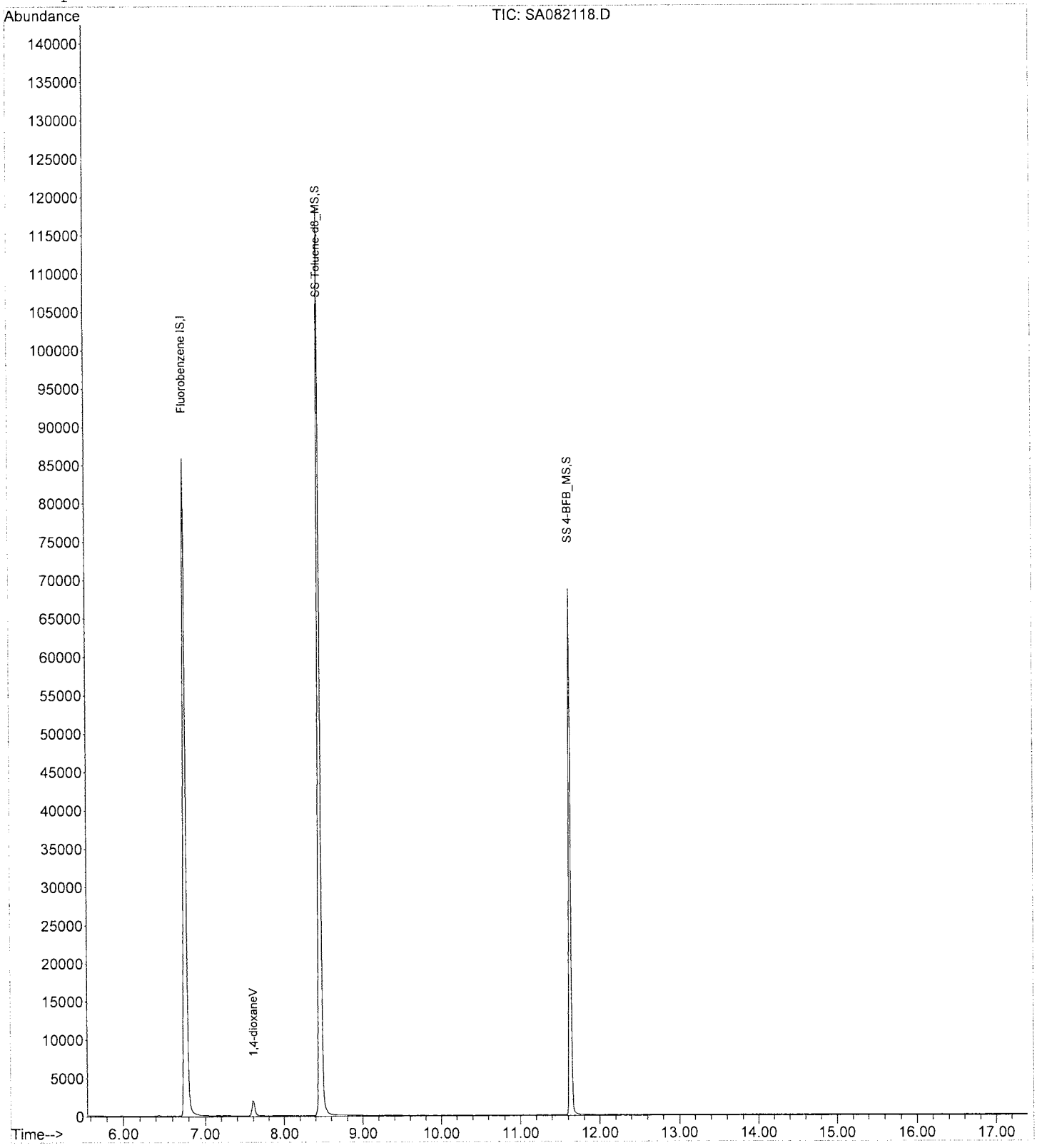
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156150	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	157083	9.69	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.91%			
4) SS 4-BFB_MS	11.63	95	65046	11.20	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.03%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3263	4.979	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:33 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082119.D Vial: 19
Acq On : 22 Aug 2013 2:11 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:41 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

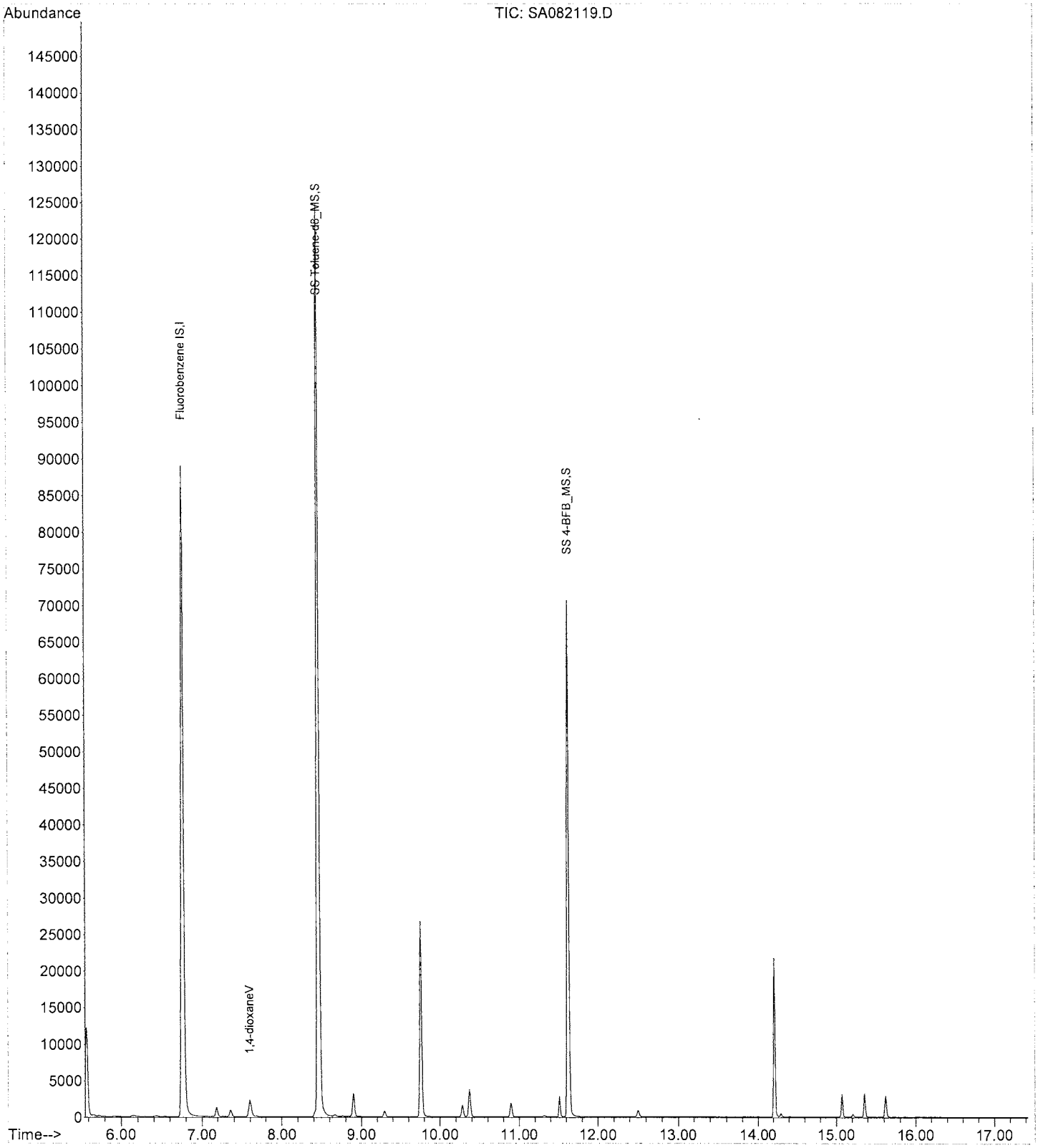
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156838	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	169130	10.39	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.89%			
4) SS 4-BFB_MS	11.63	95	65318	11.20	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.00%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3170	4.816	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082119.D Vial: 19
Acq On : 22 Aug 2013 2:11 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:33 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082120.D Vial: 20
Acq On : 22 Aug 2013 3:02 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:51 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

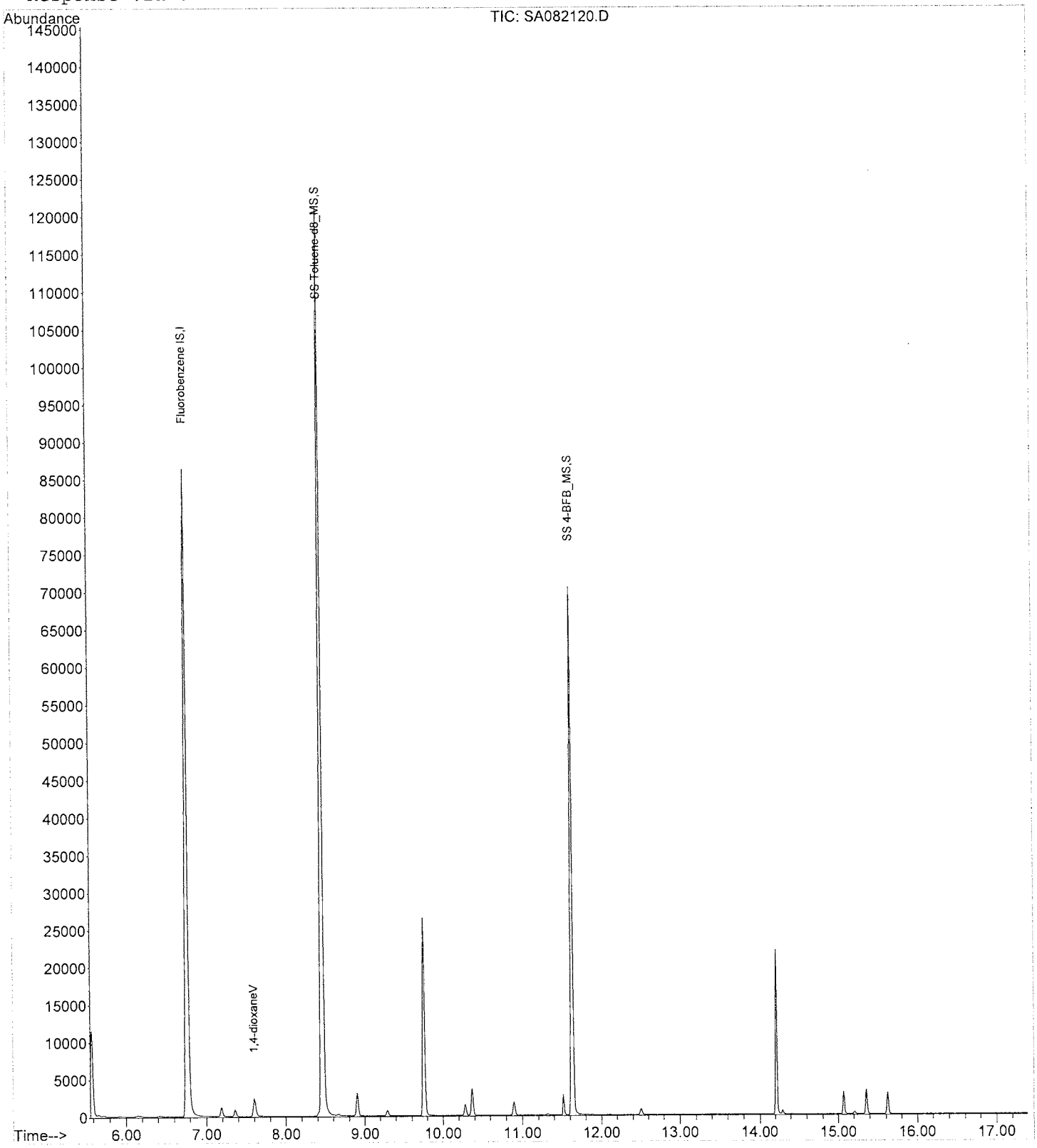
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	154886	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	166456	10.35	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.53%			
4) SS 4-BFB_MS	11.63	95	64860	11.26	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.62%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3401m	5.232	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082120.D Vial: 20
Acq On : 22 Aug 2013 3:02 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:26 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082121.D Vial: 21
Acq On : 22 Aug 2013 3:53 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:36:01 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

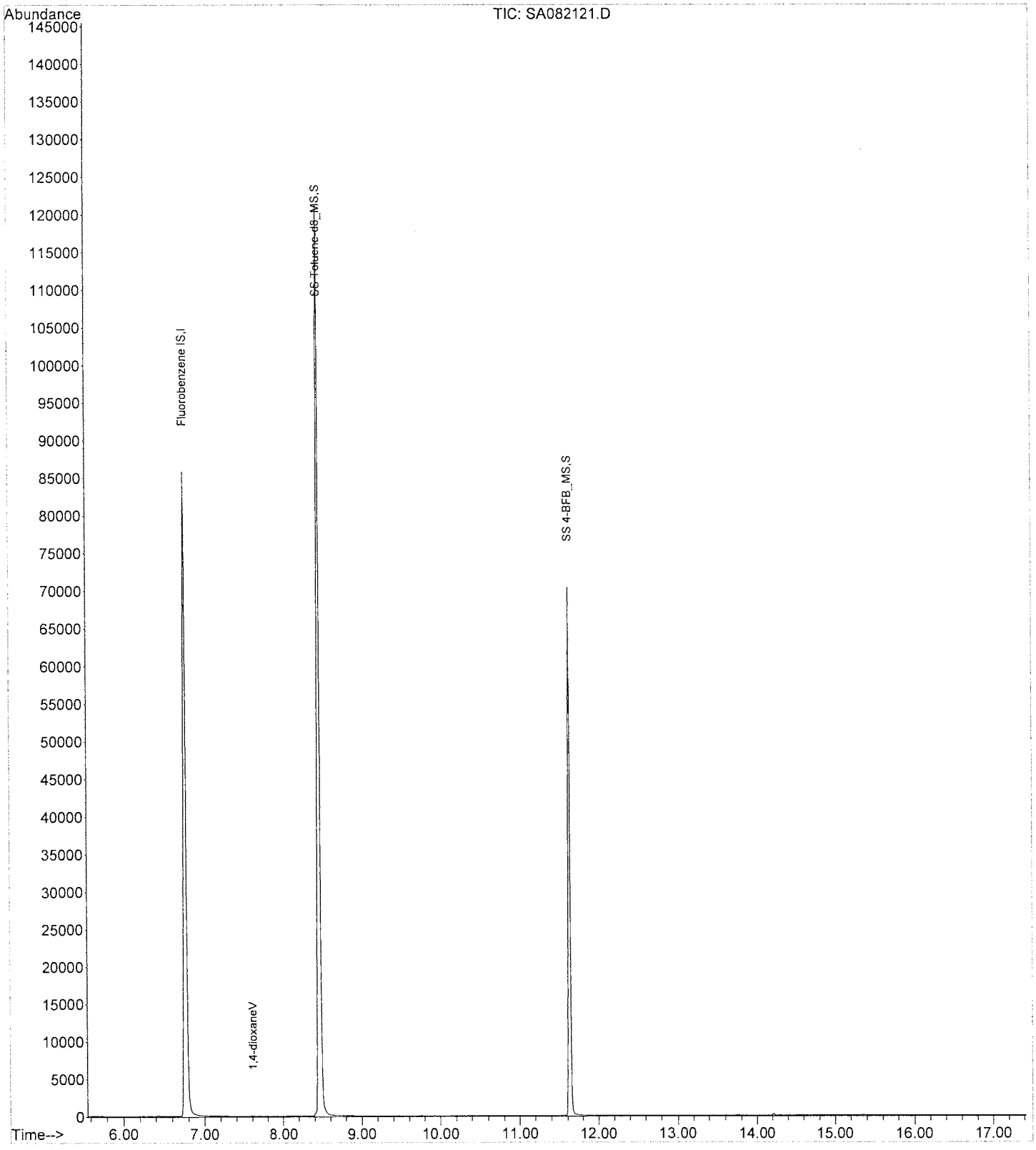
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	154824	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	166506	10.36	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.61%			
4) SS 4-BFB_MS	11.63	95	65531	11.38	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.83%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	81m	0.125	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082121.D 2SIM0510.M Fri Aug 23 12:58:39 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082121.D Vial: 21
Acq On : 22 Aug 2013 3:53 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082127.D Vial: 27
Acq On : 22 Aug 2013 8:47 am Operator: VG
Sample : 123704.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:25:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	160988	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	165012	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.75%			
4) SS 4-BFB_MS	11.64	95	67609	11.29	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.94%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	8	0.012	ug/L	98

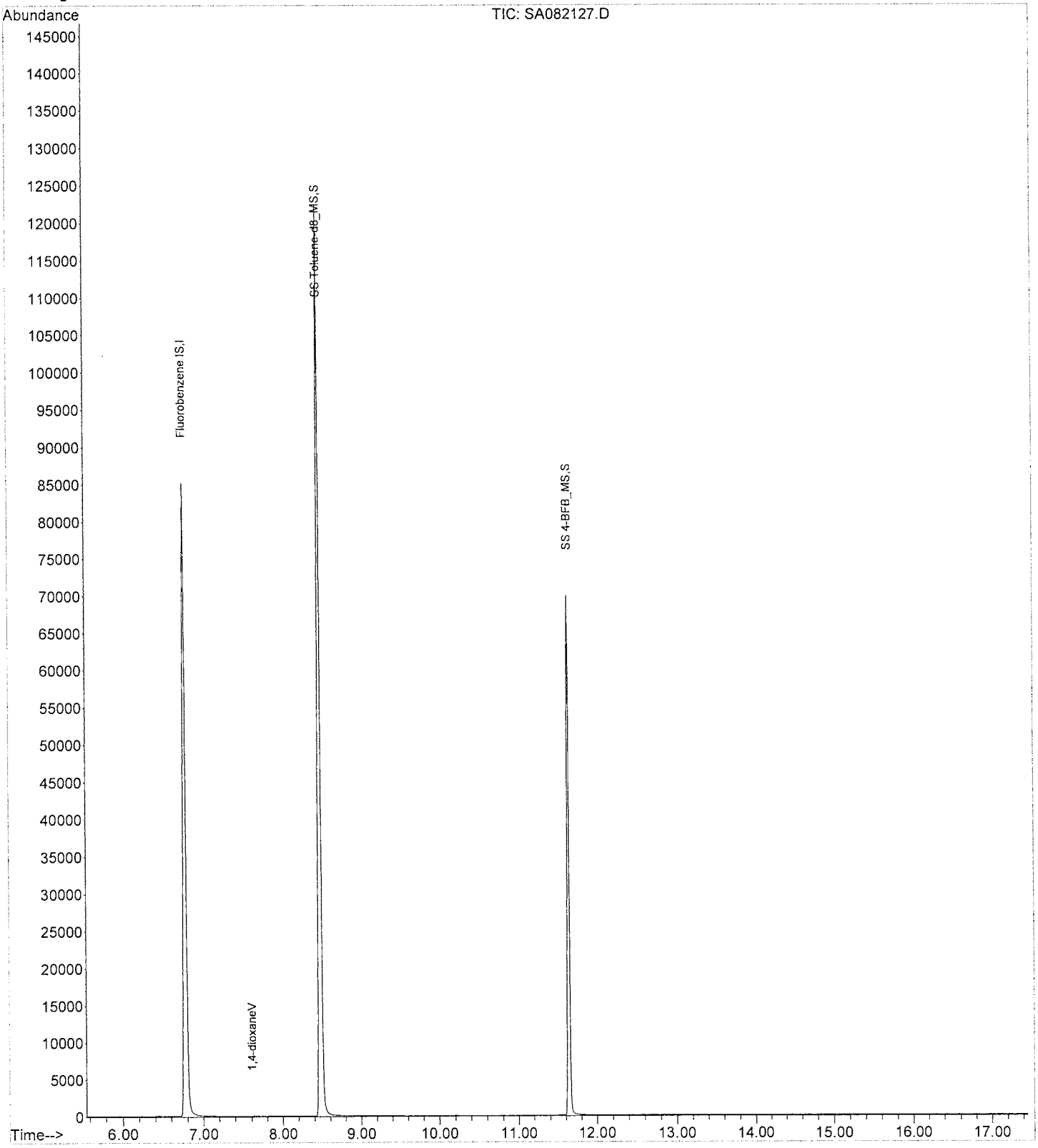
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082127.D Vial: 27
Acq On : 22 Aug 2013 8:47 am Operator: VG
Sample : 123704.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:24 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082128.D Vial: 28
Acq On : 22 Aug 2013 9:36 am Operator: VG
Sample : 123704.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:26:02 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161698	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.48	98	164668	9.81	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.11%			
4) SS 4-BFB_MS	11.64	95	67839	11.28	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.83%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1255	1.849	ug/L	73

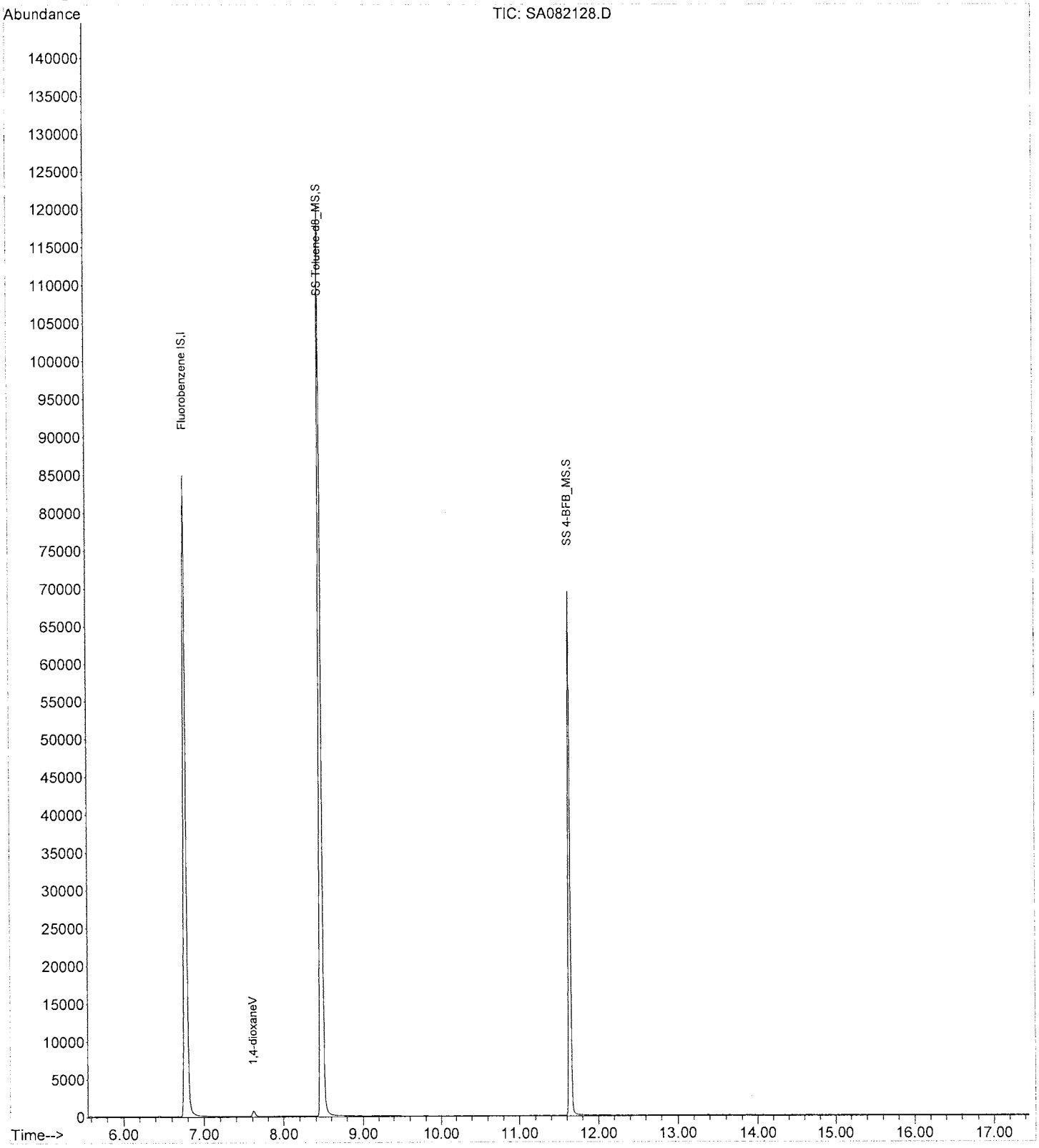
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082128.D 2SIM0510.M Thu Aug 22 15:26:02 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082128.D Vial: 28
Acq On : 22 Aug 2013 9:36 am Operator: VG
Sample : 123704.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:24 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082129.D Vial: 29
Acq On : 22 Aug 2013 10:24 am Operator: VG
Sample : 123704.03 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:26:05 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	160469	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	165293	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.23%			
4) SS 4-BFB_MS	11.64	95	67290	11.28	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.77%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	~~2228~~ 1443	~~3.308~~ 2.14	ug/L	96

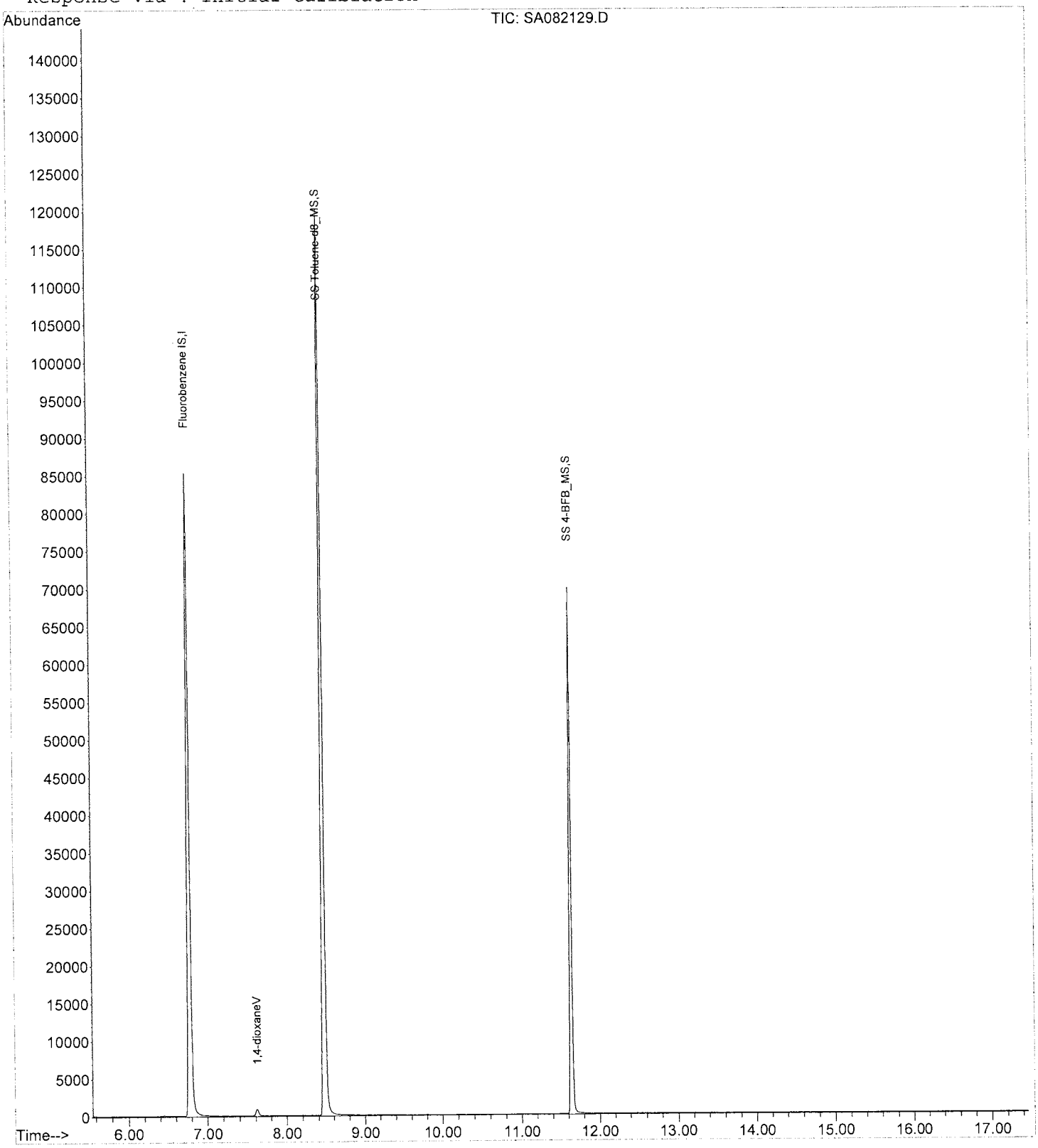
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082129.D Vial: 29
Acq On : 22 Aug 2013 10:24 am Operator: VG
Sample : 123704.03 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:24 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082130.D Vial: 30
Acq On : 22 Aug 2013 11:14 am Operator: VG
Sample : 123704.02MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:26:08 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

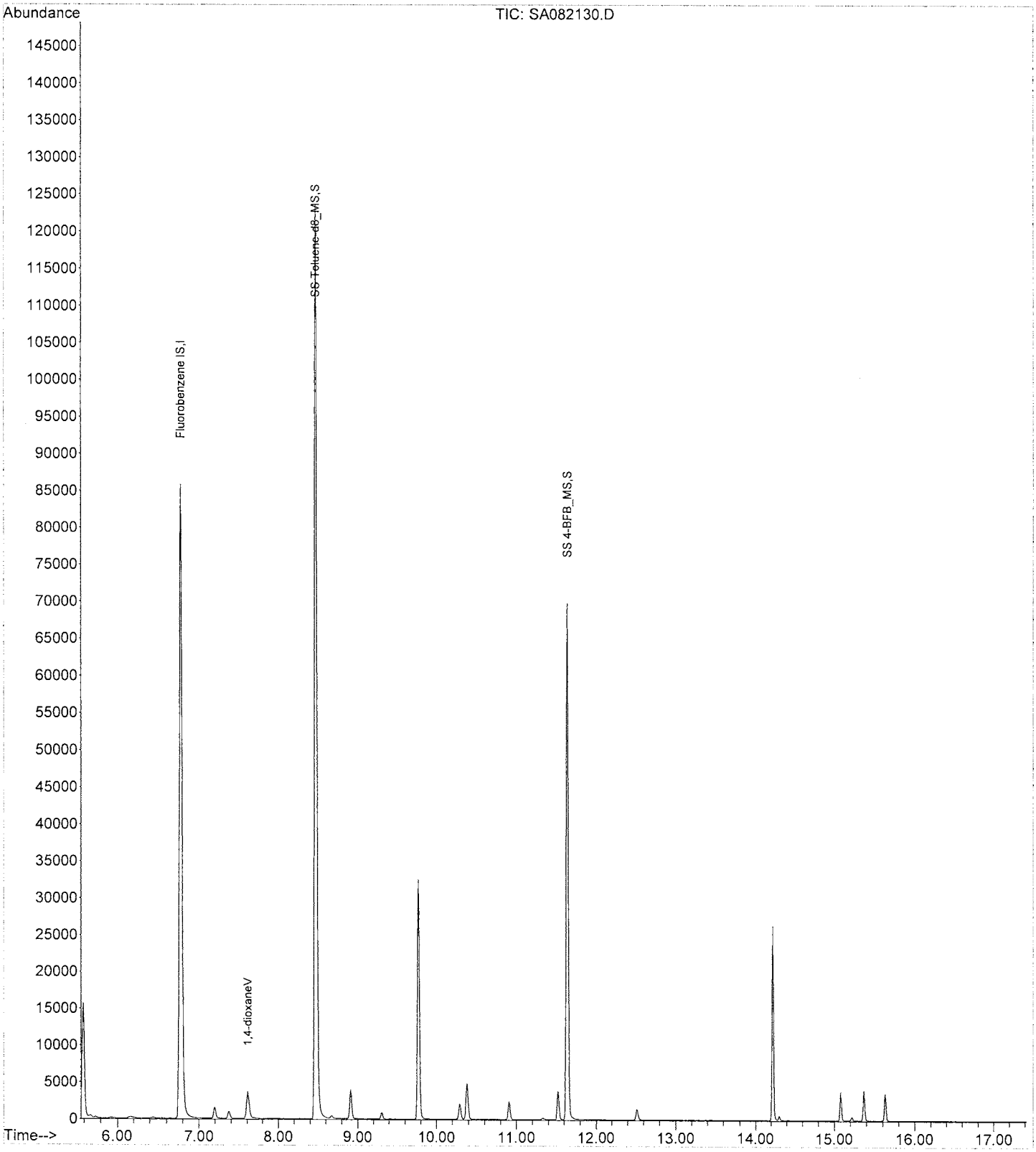
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	160791	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	173617	10.40	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.02%			
4) SS 4-BFB_MS	11.64	95	67227	11.24	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.44%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	5091m	7.545	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082130.D Vial: 30
Acq On : 22 Aug 2013 11:14 am Operator: VG
Sample : 123704.02MS Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:30 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082131.D Vial: 31
Acq On : 22 Aug 2013 12:02 pm Operator: VG
Sample : 123704.02MSD Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:26:11 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

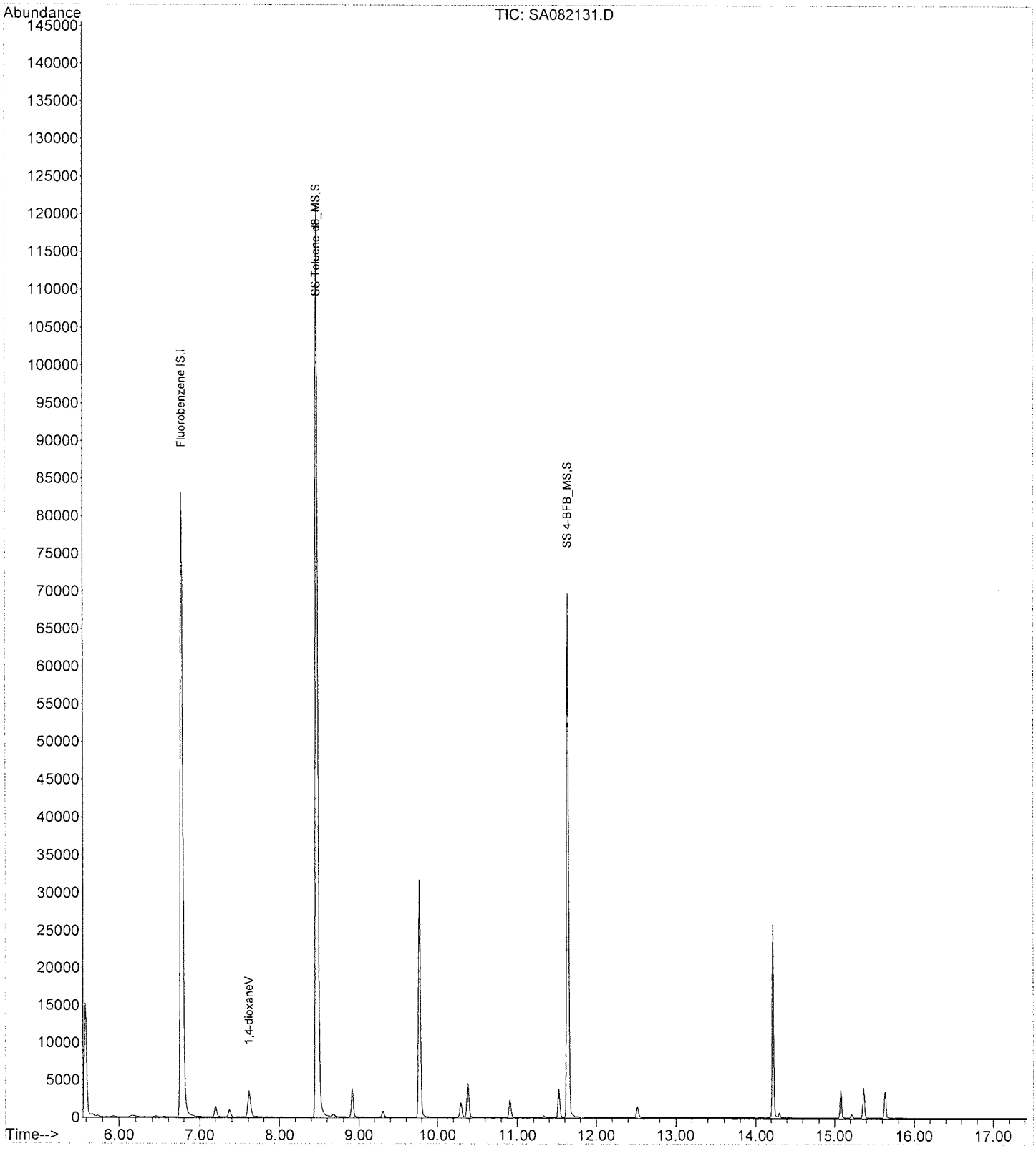
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	155854	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170242	10.52	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.23%			
4) SS 4-BFB_MS	11.64	95	66413	11.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.60%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	4930m	7.537	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082131.D Vial: 31
Acq On : 22 Aug 2013 12:02 pm Operator: VG
Sample : 123704.02MSD Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:31 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123705
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/20/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 9.5.13 Date | 308 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123705.01	DW-EB-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.02	DW-FB-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.03	Trip Blank 524	8/20/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy
123705.04	DW-339BHR-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.05	DW-R-3-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.06	DW-R-3-Dup-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.07	DW-346BHR-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.08	DW-415BHR-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.09	GW-MW-6-150BGS-0813	8/20/13	8/16/13	aqueous		Adheres to Sample Acceptance Policy
123705.1	Trip Blank 1,4 dioxane	8/20/13	7/29/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT

EAI ID#: **123705**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/20/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

No field QC was designated for this sample delivery group.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

VOC 524.2

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

The LCS and LCSD deviated low from acceptability criteria for vinyl acetate and 2,2-dichloropropane. Both of these compounds were acceptable in the CV and were detected in the in the low level standard analyzed with the sample batch.

VOC 8260B

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

1,4-DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

METALS

The parent sample for matrix spike analysis was not specific to this sample delivery group.

The LCS deviated high from acceptability criteria for antimony (Sb). Antimony was not detected above the reporting limit in samples.

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	DW-EB-0813	DW-FB-0813	Trip Blank 524	DW-339BHR -0813	DW-R-3 -0813	DW-R-3-Dup-0813	DW -346BHR -0813
Lab Sample ID:	123705.01	123705.02	123705.03	123705.04	123705.05	123705.06	123705.07
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/16/13	8/16/13	7/29/13	8/16/13	8/16/13	8/16/13	8/16/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13
Analyst:	BAM	BAM	BAM	BAM	BAM	BAM	BAM
Method:	524.2	524.2	524.2	524.2	524.2	524.2	524.2
Dilution Factor:	1	1	1	1	1	1	1
Dichlorodifluoromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl Ether	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30	< 30	< 30	< 30
Methylene chloride	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethyl-t-butyl ether(ETBE)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl ether(DIPE)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
tert-amyl methyl ether(TAME)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl acetate	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2,2-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone(MEK)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromochloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran(THF)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone(MIBK)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Hexanone	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	DW-EB-0813	DW-FB-0813	Trip Blank 524	DW-339BHR -0813	DW-R-3 -0813	DW-R-3-Dup-0813	DW -346BHR -0813
Lab Sample ID:	123705.01	123705.02	123705.03	123705.04	123705.05	123705.06	123705.07
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/16/13	8/16/13	7/29/13	8/16/13	8/16/13	8/16/13	8/16/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13
Analyst:	BAM	BAM	BAM	BAM	BAM	BAM	BAM
Method:	524.2	524.2	524.2	524.2	524.2	524.2	524.2
Dilution Factor:	1	1	1	1	1	1	1
mp-Xylene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
IsoPropylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3,5-Trimethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-Trimethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromo-3-chloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3,5-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	**100 %R**	**101 %R**	**100 %R**	**100 %R**	**101 %R**	**100 %R**	**100 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**	**102 %R**	**103 %R**	**101 %R**	**104 %R**	**104 %R**	**103 %R**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: DW-415BHR-0813

Lab Sample ID:	123705.08
Matrix:	aqueous
Date Sampled:	8/16/13
Date Received:	8/20/13
Units:	ug/l
Date of Analysis:	8/23/13
Analyst:	BAM
Method:	524.2
Dilution Factor:	1

Dichlorodifluoromethane	< 0.5
Chloromethane	< 0.5
Vinyl chloride	< 0.5
Bromomethane	< 0.5
Chloroethane	< 0.5
Trichlorofluoromethane	< 0.5
Diethyl Ether	< 5
Acetone	< 10
1,1-Dichloroethene	< 0.5
tert-Butyl Alcohol (TBA)	< 30
Methylene chloride	< 0.5
Carbon disulfide	< 2
Methyl-t-butyl ether(MTBE)	< 0.5
Ethyl-t-butyl ether(ETBE)	< 0.5
Isopropyl ether(DIPE)	< 0.5
tert-amyl methyl ether(TAME)	< 0.5
trans-1,2-Dichloroethene	< 0.5
Vinyl acetate	< 10
1,1-Dichloroethane	< 0.5
2,2-Dichloropropane	< 0.5
cis-1,2-Dichloroethene	< 0.5
2-Butanone(MEK)	< 5
Bromochloromethane	< 0.5
Tetrahydrofuran(THF)	< 5
Chloroform	< 0.5
1,1,1-Trichloroethane	< 0.5
Carbon tetrachloride	< 0.5
1,1-Dichloropropene	< 0.5
Benzene	< 0.5
1,2-Dichloroethane	< 0.5
Trichloroethene	< 0.5
1,2-Dichloropropane	< 0.5
Dibromomethane	< 0.5
Bromodichloromethane	< 0.5
4-Methyl-2-pentanone(MIBK)	< 5
cis-1,3-Dichloropropene	< 0.3
Toluene	< 0.5
trans-1,3-Dichloropropene	< 0.3
1,1,2-Trichloroethane	< 0.5
2-Hexanone	< 5
Tetrachloroethene	< 0.5
1,3-Dichloropropane	< 0.5
Dibromochloromethane	< 0.5
1,2-Dibromoethane(EDB)	< 0.5
Chlorobenzene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
Ethylbenzene	< 0.5

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	DW-415BHR-0813
Lab Sample ID:	123705.08
Matrix:	aqueous
Date Sampled:	8/16/13
Date Received:	8/20/13
Units:	ug/l
Date of Analysis:	8/23/13
Analyst:	BAM
Method:	524.2
Dilution Factor:	1
mp-Xylene	< 0.5
o-Xylene	< 0.5
Styrene	< 0.5
Bromoform	< 0.5
IsoPropylbenzene	< 0.5
Bromobenzene	< 0.5
1,1,2,2-Tetrachloroethane	< 0.5
1,2,3-Trichloropropane	< 0.5
n-Propylbenzene	< 0.5
2-Chlorotoluene	< 0.5
4-Chlorotoluene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
tert-Butylbenzene	< 0.5
1,2,4-Trimethylbenzene	< 0.5
sec-Butylbenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
p-Isopropyltoluene	< 0.5
1,4-Dichlorobenzene	< 0.5
1,2-Dichlorobenzene	< 0.5
n-Butylbenzene	< 0.5
1,2-Dibromo-3-chloropropane	< 0.5
1,3,5-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
Hexachlorobutadiene	< 0.5
Naphthalene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
4-Bromofluorobenzene (surr)	**100 %R**
1,2-Dichlorobenzene-d4 (surr)	**104 %R**

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 0.5	10 (104 %R)	10 (100 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Chloromethane	< 0.5	10 (104 %R)	9.7 (97 %R) (7 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Vinyl chloride	< 0.5	10 (102 %R)	9.6 (96 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Bromomethane	< 0.5	8.3 (83 %R)	9.2 (92 %R) (10 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Chloroethane	< 0.5	10 (102 %R)	9.6 (96 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Trichlorofluoromethane	< 0.5	9.8 (98 %R)	9.2 (92 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Diethyl Ether	< 5	10 (100 %R)	10 (99 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Acetone	< 10	10 (117 %R)	10 (114 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1-Dichloroethene	< 0.5	8.7 (87 %R)	8.3 (83 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
tert-Butyl Alcohol (TBA)	< 30	50 (106 %R)	50 (103 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Methylene chloride	< 0.5	9.3 (93 %R)	9.0 (90 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Carbon disulfide	< 2	8 (78 %R)	8 (75 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Methyl-t-butyl ether(MTBE)	< 0.5	9.7 (97 %R)	9.5 (95 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Ethyl-t-butyl ether(ETBE)	< 0.5	9.4 (94 %R)	9.1 (91 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Isopropyl ether(DIPE)	< 0.5	9.5 (95 %R)	9.2 (92 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
tert-amyl methyl ether(TAME)	< 0.5	9.9 (99 %R)	9.6 (96 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
trans-1,2-Dichloroethene	< 0.5	9.9 (99 %R)	9.5 (95 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Vinyl acetate	< 10	* < 10 (45 %R)	* < 10 (43 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1-Dichloroethane	< 0.5	10 (101 %R)	9.6 (96 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
2,2-Dichloropropane	< 0.5	* 6.0 (60 %R)	* 5.7 (57 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
cis-1,2-Dichloroethene	< 0.5	11 (110 %R)	10 (104 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
2-Butanone(MEK)	< 5	11 (108 %R)	11 (107 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Bromochloromethane	< 0.5	10 (103 %R)	10 (101 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Tetrahydrofuran(THF)	< 5	10 (103 %R)	10 (101 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Chloroform	< 0.5	10 (102 %R)	9.7 (97 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1,1-Trichloroethane	< 0.5	9.3 (93 %R)	9.0 (90 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Carbon tetrachloride	< 0.5	9.1 (91 %R)	8.8 (88 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1-Dichloropropene	< 0.5	9.3 (93 %R)	8.9 (89 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Benzene	< 0.5	10 (103 %R)	10 (100 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2-Dichloroethane	< 0.5	10 (100 %R)	9.6 (96 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Trichloroethene	< 0.5	9.7 (97 %R)	9.2 (92 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2-Dichloropropane	< 0.5	10 (102 %R)	9.8 (98 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Dibromomethane	< 0.5	11 (107 %R)	10 (104 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Bromodichloromethane	< 0.5	9.4 (94 %R)	9.1 (91 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
4-Methyl-2-pentanone(MIBK)	< 5	12 (115 %R)	11 (113 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
cis-1,3-Dichloropropene	< 0.3	9.8 (98 %R)	9.5 (95 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Toluene	< 0.5	10 (103 %R)	9.9 (99 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
trans-1,3-Dichloropropene	< 0.3	9.2 (92 %R)	8.8 (88 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1,2-Trichloroethane	< 0.5	11 (110 %R)	10 (105 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
2-Hexanone	< 5	12 (122 %R)	12 (120 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Tetrachloroethene	< 0.5	10 (104 %R)	10 (100 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,3-Dichloropropane	< 0.5	11 (110 %R)	10 (105 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Dibromochloromethane	< 0.5	9.8 (98 %R)	9.8 (98 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2-Dibromoethane(EDB)	< 0.5	11 (106 %R)	10 (103 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Chlorobenzene	< 0.5	10 (101 %R)	9.8 (98 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1,1,2-Tetrachloroethane	< 0.5	9.8 (98 %R)	9.5 (95 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2

QC REPORT

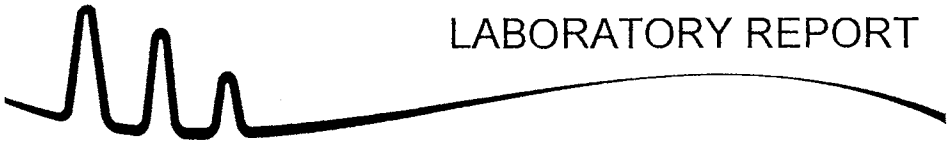
EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 0.5	10 (103 %R)	9.8 (98 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
mp-Xylene	< 0.5	20 (101 %R)	19 (96 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
o-Xylene	< 0.5	10 (102 %R)	9.8 (98 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Styrene	< 0.5	11 (106 %R)	10 (102 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Bromoform	< 0.5	11 (111 %R)	11 (111 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
IsoPropylbenzene	< 0.5	11 (111 %R)	11 (106 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Bromobenzene	< 0.5	10 (102 %R)	9.8 (98 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,1,2,2-Tetrachloroethane	< 0.5	11 (114 %R)	11 (110 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2,3-Trichloropropane	< 0.5	11 (110 %R)	11 (107 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
n-Propylbenzene	< 0.5	10 (105 %R)	9.9 (99 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
2-Chlorotoluene	< 0.5	10 (101 %R)	9.6 (96 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
4-Chlorotoluene	< 0.5	10 (100 %R)	9.6 (96 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,3,5-Trimethylbenzene	< 0.5	10 (103 %R)	9.8 (98 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
tert-Butylbenzene	< 0.5	10 (104 %R)	9.7 (97 %R) (7 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2,4-Trimethylbenzene	< 0.5	10 (103 %R)	9.8 (98 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
sec-Butylbenzene	< 0.5	10 (104 %R)	9.8 (98 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,3-Dichlorobenzene	< 0.5	10 (102 %R)	9.7 (97 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
p-Isopropyltoluene	< 0.5	10 (105 %R)	9.9 (99 %R) (6 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,4-Dichlorobenzene	< 0.5	10 (102 %R)	9.8 (98 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2-Dichlorobenzene	< 0.5	10 (103 %R)	9.9 (99 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
n-Butylbenzene	< 0.5	10 (102 %R)	9.7 (97 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2-Dibromo-3-chloropropane	< 0.5	9.9 (99 %R)	9.4 (94 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,3,5-Trichlorobenzene	< 0.5	11 (107 %R)	10 (103 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2,4-Trichlorobenzene	< 0.5	10 (105 %R)	10 (100 %R) (5 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Hexachlorobutadiene	< 0.5	8.7 (87 %R)	8.4 (84 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
Naphthalene	< 0.5	11 (114 %R)	11 (111 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
1,2,3-Trichlorobenzene	< 0.5	11 (107 %R)	10 (104 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	30	524.2
4-Bromofluorobenzene (surr)	100 %R	105 %R	105 %R	8/23/2013	% Rec	70 - 130		524.2
1,2-Dichlorobenzene-d4 (surr)	101 %R	108 %R	108 %R	8/23/2013	% Rec	70 - 130		524.2

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.



LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: GW-MW-6-150BGS-0813

Lab Sample ID:	123705.09
Matrix:	aqueous
Date Sampled:	8/16/13
Date Received:	8/20/13
Units:	ug/l
Date of Analysis:	8/23/13
Analyst:	BAM
Method:	8260B
Dilution Factor:	1

Dichlorodifluoromethane	< 5
Chloromethane	< 2
Vinyl chloride	< 2
Bromomethane	< 2
Chloroethane	< 5
Trichlorofluoromethane	< 5
Diethyl Ether	< 5
Acetone	< 10
1,1-Dichloroethene	< 1
tert-Butyl Alcohol (TBA)	< 30
Methylene chloride	< 5
Carbon disulfide	< 5
Methyl-t-butyl ether(MTBE)	< 5
Ethyl-t-butyl ether(ETBE)	< 5
Isopropyl ether(DIPE)	< 5
tert-amyl methyl ether(TAME)	< 5
trans-1,2-Dichloroethene	< 2
1,1-Dichloroethane	< 2
2,2-Dichloropropane	< 2
cis-1,2-Dichloroethene	< 2
2-Butanone(MEK)	< 10
Bromochloromethane	< 2
Tetrahydrofuran(THF)	< 10
Chloroform	< 2
1,1,1-Trichloroethane	< 2
Carbon tetrachloride	< 2
1,1-Dichloropropene	< 2
Benzene	< 1
1,2-Dichloroethane	< 2
Trichloroethene	< 2
1,2-Dichloropropane	< 2
Dibromomethane	< 2
Bromodichloromethane	< 0.5
1,4-Dioxane	< 50
4-Methyl-2-pentanone(MIBK)	< 10
cis-1,3-Dichloropropene	< 2
Toluene	< 1
trans-1,3-Dichloropropene	< 2
1,1,2-Trichloroethane	< 2
2-Hexanone	< 10
Tetrachloroethene	< 2
1,3-Dichloropropane	< 2
Dibromochloromethane	< 2
1,2-Dibromoethane(EDB)	< 2
Chlorobenzene	< 2
1,1,1,2-Tetrachloroethane	< 2
Ethylbenzene	< 1

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: GW-MW-6-150BGS-0813

Lab Sample ID:	123705.09
Matrix:	aqueous
Date Sampled:	8/16/13
Date Received:	8/20/13
Units:	ug/l
Date of Analysis:	8/23/13
Analyst:	BAM
Method:	8260B
Dilution Factor:	1
mp-Xylene	< 1
o-Xylene	< 1
Styrene	< 1
Bromoform	< 2
IsoPropylbenzene	< 1
Bromobenzene	< 2
1,1,2,2-Tetrachloroethane	< 2
1,2,3-Trichloropropane	< 2
n-Propylbenzene	< 1
2-Chlorotoluene	< 2
4-Chlorotoluene	< 2
1,3,5-Trimethylbenzene	< 1
tert-Butylbenzene	< 1
1,2,4-Trimethylbenzene	< 1
sec-Butylbenzene	< 1
1,3-Dichlorobenzene	< 1
p-Isopropyltoluene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
n-Butylbenzene	< 1
1,2-Dibromo-3-chloropropane	< 2
1,3,5-Trichlorobenzene	< 1
1,2,4-Trichlorobenzene	< 1
Hexachlorobutadiene	< 0.5
Naphthalene	< 5
1,2,3-Trichlorobenzene	< 1
4-Bromofluorobenzene (surr)	**97 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**
Toluene-d8 (surr)	**98 %R**

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	21 (103 %R)	21 (105 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Chloromethane	< 2	21 (107 %R)	22 (110 %R) (3 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Vinyl chloride	< 2	22 (111 %R)	23 (116 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromomethane	< 2	20 (98 %R)	22 (110 %R) (12 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Chloroethane	< 5	21 (103 %R)	21 (105 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Trichlorofluoromethane	< 5	20 (99 %R)	20 (100 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Diethyl Ether	< 5	20 (102 %R)	20 (102 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Acetone	< 10	20 (95 %R)	20 (94 %R) (1 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
1,1-Dichloroethene	< 1	17 (87 %R)	18 (89 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-Butyl Alcohol (TBA)	< 30	90 (91 %R)	80 (84 %R) (8 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Methylene chloride	< 5	19 (95 %R)	19 (97 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Carbon disulfide	< 5	17 (83 %R)	17 (86 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Methyl-t-butyl ether(MTBE)	< 5	19 (96 %R)	19 (96 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Ethyl-t-butyl ether(ETBE)	< 5	19 (95 %R)	19 (94 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Isopropyl ether(DIPE)	< 5	19 (96 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-amyl methyl ether(TAME)	< 5	19 (97 %R)	20 (98 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
trans-1,2-Dichloroethene	< 2	19 (96 %R)	20 (98 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1-Dichloroethane	< 2	20 (98 %R)	20 (99 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2,2-Dichloropropane	< 2	19 (95 %R)	19 (96 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
cis-1,2-Dichloroethene	< 2	22 (109 %R)	22 (108 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Butanone(MEK)	< 10	20 (97 %R)	20 (95 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Bromochloromethane	< 2	20 (99 %R)	20 (100 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Tetrahydrofuran(THF)	< 10	20 (98 %R)	20 (94 %R) (4 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Chloroform	< 2	20 (99 %R)	20 (101 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,1-Trichloroethane	< 2	18 (92 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Carbon tetrachloride	< 2	18 (91 %R)	19 (94 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1-Dichloropropene	< 2	18 (92 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Benzene	< 1	20 (102 %R)	21 (103 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichloroethane	< 2	20 (98 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Trichloroethene	< 2	18 (92 %R)	19 (93 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichloropropane	< 2	20 (101 %R)	20 (102 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Dibromomethane	< 2	20 (100 %R)	20 (101 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromodichloromethane	< 0.5	19 (93 %R)	19 (94 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,4-Dioxane	< 50	< 50 (129 %R)	< 50 (125 %R) (3 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
4-Methyl-2-pentanone(MIBK)	< 10	20 (106 %R)	20 (104 %R) (2 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
cis-1,3-Dichloropropene	< 2	21 (107 %R)	21 (107 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Toluene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
trans-1,3-Dichloropropene	< 2	19 (95 %R)	19 (95 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,2-Trichloroethane	< 2	20 (100 %R)	20 (98 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Hexanone	< 10	20 (104 %R)	20 (100 %R) (4 RPD)	8/23/2013	ug/l	40 - 160	20	8260B
Tetrachloroethene	< 2	19 (95 %R)	19 (96 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3-Dichloropropane	< 2	19 (96 %R)	19 (94 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Dibromochloromethane	< 2	17 (86 %R)	17 (86 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dibromoethane(EDB)	< 2	19 (97 %R)	19 (95 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Chlorobenzene	< 2	20 (98 %R)	20 (98 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,1,2-Tetrachloroethane	< 2	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
mp-Xylene	< 1	39 (96 %R)	39 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
o-Xylene	< 1	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Styrene	< 1	21 (104 %R)	21 (104 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromoform	< 2	17 (83 %R)	17 (83 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
IsoPropylbenzene	< 1	22 (109 %R)	22 (110 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Bromobenzene	< 2	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,1,2,2-Tetrachloroethane	< 2	20 (100 %R)	19 (97 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichloropropane	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
n-Propylbenzene	< 1	21 (103 %R)	21 (104 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
2-Chlorotoluene	< 2	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
4-Chlorotoluene	< 2	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3,5-Trimethylbenzene	< 1	20 (101 %R)	20 (101 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
tert-Butylbenzene	< 1	20 (100 %R)	20 (101 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,4-Trimethylbenzene	< 1	20 (101 %R)	20 (101 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
sec-Butylbenzene	< 1	20 (102 %R)	20 (102 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3-Dichlorobenzene	< 1	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
p-Isopropyltoluene	< 1	21 (105 %R)	21 (105 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,4-Dichlorobenzene	< 1	20 (100 %R)	20 (100 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dichlorobenzene	< 1	20 (99 %R)	20 (98 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
n-Butylbenzene	< 1	21 (103 %R)	21 (104 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2-Dibromo-3-chloropropane	< 2	18 (88 %R)	17 (86 %R) (2 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,3,5-Trichlorobenzene	< 1	20 (101 %R)	20 (102 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,4-Trichlorobenzene	< 1	19 (97 %R)	19 (97 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Hexachlorobutadiene	< 0.5	17 (85 %R)	18 (88 %R) (3 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
Naphthalene	< 5	20 (99 %R)	20 (99 %R) (0 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
1,2,3-Trichlorobenzene	< 1	19 (96 %R)	19 (97 %R) (1 RPD)	8/23/2013	ug/l	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	98 %R	100 %R	99 %R	8/23/2013	% Rec	70 - 130	20	8260B
1,2-Dichlorobenzene-d4 (surr)	102 %R	101 %R	100 %R	8/23/2013	% Rec	70 - 130	20	8260B
Toluene-d8 (surr)	99 %R	98 %R	98 %R	8/23/2013	% Rec	70 - 130	20	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	DW-EB-0813	DW-FB-0813	DW-339BHR -0813	DW-R-3-0813	DW-R-3-Dup -0813	DW -346BHR -0813	DW -415BHR -0813
Lab Sample ID:	123705.01	123705.02	123705.04	123705.05	123705.06	123705.07	123705.08
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13	8/16/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/21/13	8/21/13	8/21/13	8/21/13	8/22/13	8/22/13	8/22/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1	1	1	1
1,4-Dioxane	< 0.25	< 0.25	**0.42**	**0.45**	**0.41**	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	**109 %R**	**111 %R**	**109 %R**	**110 %R**	**110 %R**	**110 %R**	**112 %R**
Toluene-d8 (surr)	**97 %R**	**98 %R**	**97 %R**	**97 %R**	**102 %R**	**98 %R**	**98 %R**

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-MW-6-150BGS-0813	Trip Blank 1,4 dioxane
Lab Sample ID:	123705.09	123705.1
Matrix:	aqueous	aqueous
Date Sampled:	8/16/13	7/29/13
Date Received:	8/20/13	8/20/13
Units:	ug/l	ug/l
Date of Analysis:	8/22/13	8/22/13
Analyst:	VG	VG
Method:	8260B SIM	8260B SIM
Dilution Factor:	1	1
1,4-Dioxane	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	**114 %R**	**111 %R**
Toluene-d8 (surr)	**99 %R**	**103 %R**

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.3 (86 %R)	4.5 (89 %R) (3 RPD)	ug/l	8/21/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	105 %R	104 %R	104 %R	% Rec	8/21/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	96 %R	95 %R	97 %R	% Rec	8/21/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.8 (96 %R)	5.2 (105 %R) (9 RPD)	ug/l	8/22/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	114 %R	112 %R	113 %R	% Rec	8/22/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	104 %R	104 %R	104 %R	% Rec	8/22/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: GW-MW-6-150BGS-0813

Lab Sample ID: 123705.09

Matrix: aqueous

Date Sampled: 8/16/13

Date Received: 8/20/13

		Analytical Matrix	Units	Analysis Date	Method	Analyst
Aluminum	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.002**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**15**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Iron	**2.6**	AqTot	mg/L	8/21/13	200.8	DS
Lead	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**5.7**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	**0.99**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.002**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**1.6**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**12**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	**0.016**	AqTot	mg/L	8/21/13	200.8	DS

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	11 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.2 (118 %R)		mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	1.1 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	11 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.91 (91 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	11 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	10 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (103 %R)		mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (108 %R)		mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.1 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8

The laboratory control sample for Antimony did not meet the acceptance criteria. The high bias has no impact on the data reported as no Antimony was found in any of the samples.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123705**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123739.13	< 0.05	9.9 (90 %R)	9.9 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123739.13	< 0.001	1.2 (119 %R)	1.2 (119 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123739.13	0.018	1.0 (101 %R)	1.0 (101 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123739.13	0.037	1.0 (98 %R)	1.0 (100 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123739.13	< 0.001	0.93 (93 %R)	0.94 (94 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123739.13	28	37 (87 %R)	38 (88 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123739.13	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123739.13	< 0.001	0.88 (88 %R)	0.88 (88 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123739.13	< 0.001	0.78 (78 %R)	0.78 (78 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123739.13	0.006	0.85 (85 %R)	0.86 (85 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123739.13	2.7	13 (90 %R)	13 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123739.13	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123739.13	12	21 (80 %R)	21 (83 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123739.13	2.3	3.1 (85 %R)	3.2 (93 %R) (9 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123739.13	< 0.0001	0.0010 (101 %R)	0.0010 (104 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123739.13	0.005	0.84 (83 %R)	0.84 (83 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123739.13	6.9	16 (84 %R)	16 (83 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123739.13	0.003	1.0 (102 %R)	1.0 (101 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123739.13	< 0.001	0.82 (82 %R)	0.83 (83 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123739.13	82	92 (88 %R)	93 (105 %R) (18 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123739.13	< 0.001	0.97 (97 %R)	0.99 (99 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123739.13	< 0.005	0.92 (92 %R)	0.91 (91 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123739.13	< 0.005	0.90 (90 %R)	0.90 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

Chain-of-Custody Record

123705

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 MTBE only	VOC: 524.2 BTEX MTBE	VOC: 624 VTICs 1,4 Dioxane	VOC: 8021B BTEX Halos	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other: 1,4 Dioxane SIM	Other: TAL Metals	Other:	# of Containers	Notes MeOH Vial #
DW-EB-0813	8/16/13 12:05	DW	G	X																								X			5	
DW-FB-0813	8/16/13 11:55	DW	G	X																								X			5	
TRIP BLANK	8/16/13 11:55	/	/	X																								X			4	
DW-339BHR-0813	8/16/13 1258	DW	G	X																								X			5	
DW-R-3-0813	1405			X																								X			5	
DW-R-3-DUP-0813	1410			X																								X			5	
DW-346BHR-0813	1455			X																								X			5	
DW-415BHR-0813	1545			X																								X			5	
GW-MW-6-150DGS-0813	1820	GW	G			X																						X	X		7	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Steve Marcotte

Company: Summit ENV. Consultants, Inc.

Address: 640 Main Street

City: Lewiston State: ME Zip: 04240

Phone: 207-795-6009 Ext.:

Fax:

E-Mail: SMarcotte@summitENV.com

Site Name: CGAKLEY LAND FILL

Project #: 12-3173

State: (NH) MA ME VT Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other: Superfund

Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B C (special) QR

Presumptive Certainty

Reporting Options: Prelims: (Yes) or No; If Yes: Fax or (PDF)

Electronic Options: No Fax E-Mail (PDF) Equis

Temp. 3 °C

Ice? (Yes) No

Sampler(s): Marcotte

Relinquished By:	Date:	Time:	Received By:
Steve Marcotte	8/20/13	1120	D.S.
D.S.	8-20-13	14:05	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals: TAL (23 metals)

Samples Field Filtered? ☐ Yes (No)

Notes: (ie: Special Detection Limits, Billing Info, If Different)

Trip Blanks 7/29/13 7:45

1,4D 7/29/13 11:55

EM prepped

PA- 9/3/13

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(White: Original Green: Project Manager)

123705
C Level Package Data

123705
VOC 524.2
Initial Calibration

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- ~~4092 (New G)~~ 4085 (L) 4084 (G)

Analyst: Blum

Date: ~~8/19/21~~ 8/19/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA081901	BFB25ng					VOCMS	5LID0819			
2		0.2					VOCMS	5VID0819	Used for BFB = Auto Find		✓
3		0.5					VOCMS				
4		1					VOCMS				
5		BFB25ng					VOCMS		Average entire peak		✓
6		2					VOCMS				
7		5					VOCMS				
8		10					VOCMS				
9		20					VOCMS				
10		50					VOCMS				
11		50G					VOCMS				
12		100					VOCMS				
13		100G					VOCMS				
14		200					VOCMS				
15		200G					VOCMS				
16		300					VOCMS				
17		300G					VOCMS				
18		400G					VOCMS				
19		600G					VOCMS				
20		Blank					VOCMS				
21							VOCMS				
22							VOCMS				
23		LCS20					VOCMS				
							VOCMS				
							VOCMS				
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							VOCMS				

Samples removed from autosampler, order and pH verified by N/A Blum 8/20/13 1-23

Response Factor Report VOAMS5

Method : 5LID0819.M
Title : VOAMS5
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D			

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	AVG	%RSD	
1)	Fluorobenzene IS														
2)	dichlorodifluoromethane	NA	0.333	0.380	0.322	0.329	0.315	0.294	NA	0.316	NA	0.322	0.326	7.51	ok
3)	chloromethane	NA	0.346	0.358	0.306	0.300	0.278	0.260	NA	0.275	NA	0.270	0.299	12.13	ok
4)	vinyl chloride	0.201	0.162	0.175	0.151	0.144	0.135	0.122	NA	0.132	NA	0.123	0.149	17.50	ok
5)	bromomethane	NA	0.155	0.150	0.126	0.127	0.139	0.142	NA	0.168	NA	0.179	0.148	12.68	ok
6)	chloroethane	NA	0.192	0.208	0.182	0.183	0.174	0.165	NA	0.180	NA	0.174	0.182	7.23	ok
7)	trichlorofluoromethane	NA	0.399	0.440	0.377	0.390	0.375	0.358	NA	0.385	NA	0.379	0.388	6.21	ok
8)	diethyl ether	NA	0.203	0.230	0.199	0.204	0.197	0.187	NA	0.200	NA	0.198	0.202	6.09	ok
9)	1,1,2-Trichlorotrifluoroethar	NA	0.261	0.315	0.268	0.265	0.255	0.246	NA	0.262	NA	0.259	0.266	7.82	ok
10)	acetone	NA	NA	NA	0.073	0.064	0.062	0.058	NA	0.060	NA	0.060	0.063	8.75	ok
11)	1,1-dichloroethene	0.328	0.260	0.257	0.249	0.229	0.239	0.243	0.241	NA	0.226	NA	0.253	12.12	ok
12)	tert-Butyl Alcohol(TBA)	NA	NA	0.024	0.023	0.021	0.021	0.021	0.021	NA	0.020	NA	0.022	7.26	ok
13)	methylene chloride	NA	0.338	0.293	0.307	0.267	0.266	0.266	0.260	NA	0.240	NA	0.280	11.09	ok
14)	carbon disulfide	NA	NA	0.962	0.812	0.697	0.710	0.726	0.733	NA	0.702	NA	0.763	12.55	ok
15)	acrylonitrile	NA	0.114	0.132	0.112	0.111	0.110	0.103	NA	0.106	NA	0.105	0.112	8.11	ok
16)	Methyl-t-butyl ether(MTBE)	0.895	0.724	0.760	0.692	0.675	0.685	0.665	NA	0.689	NA	0.684	0.719	10.04	ok
17)	trans-1,2-dichloroethene	NA	0.266	0.265	0.274	0.255	0.266	0.272	0.275	NA	0.260	NA	0.267	2.49	ok
18)	hexane	NA	0.463	0.479	0.410	0.418	0.393	0.391	NA	0.420	NA	0.426	0.425	7.32	ok
19)	Isopropyl ether(DIPE)	NA	1.015	0.950	0.957	0.895	0.928	0.944	0.958	NA	0.897	NA	0.943	4.06	ok
20)	vinyl acetate	NA	0.467	0.533	0.456	0.453	0.431	0.472	NA	0.520	NA	0.531	0.483	8.17	ok
21)	1,1-dichloroethane	NA	0.515	0.506	0.498	0.471	0.494	0.503	0.503	NA	0.476	NA	0.496	3.06	ok
22)	Ethyl-t-butyl ether(ETBE)	NA	0.876	0.838	0.836	0.786	0.817	0.827	0.843	NA	0.793	NA	0.827	3.47	ok
23)	2,2-dichloropropane	NA	0.383	0.359	0.373	0.354	0.362	0.392	0.395	NA	0.362	NA	0.373	4.23	ok

(#) = Out of Range

Response Factor Report VOAMS5

Method : 5LID0819.M
Title : VOAMS5
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D			

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	AVG	%RSD	
24)	cis-1,2-dichloroethene	NA	0.416	0.370	0.400	0.379	0.386	0.396	0.398	NA	0.373	NA	0.390	3.97	ok
25)	2-butanone(MEK)	NA	NA	0.141	0.119	0.111	0.107	0.100	NA	0.110	NA	0.110	0.114	11.57	ok
26)	bromochloromethane	NA	0.139	0.140	0.143	0.133	0.141	0.141	0.146	NA	0.139	NA	0.140	2.76	ok
27)	Tetrahydrofuran(THF)	NA	NA	0.111	0.087	0.079	0.075	0.070	NA	0.075	NA	0.075	0.082	17.14	ok
28)	chloroform	NA	0.523	0.499	0.487	0.454	0.473	0.479	0.483	NA	0.456	NA	0.482	4.64	ok
29)	SS Dibromofluoromethane_	0.232	0.234	0.236	0.236	0.238	0.239	0.239	0.239	0.236	0.241	0.237	0.237	1.09	ok
30)	1,1,1-trichloroethane	NA	0.401	0.389	0.397	0.377	0.392	0.406	0.413	NA	0.392	NA	0.396	2.83	ok
31)	carbon tetrachloride	NA	0.311	0.314	0.312	0.301	0.330	0.350	0.367	NA	0.353	NA	0.330	7.31	ok
32)	1,1-dichloropropene	NA	0.418	0.403	0.403	0.374	0.388	0.399	0.401	NA	0.380	NA	0.396	3.60	ok
33)	SS 1,2-DCA-d4_MS	0.291	0.293	0.295	0.294	0.293	0.290	0.281	0.274	0.290	0.266	0.289	0.287	3.22	ok
34)	tert-amyl methyl ether(TAM	NA	0.745	0.718	0.710	0.677	0.706	0.719	0.744	NA	0.709	NA	0.716	3.04	ok
35)	benzene	NA	1.208	1.171	1.176	1.101	1.132	1.151	1.161	NA	1.088	NA	1.149	3.46	ok
36)	1,2-dichloroethane	NA	0.407	0.403	0.411	0.382	0.392	0.392	0.390	NA	0.359	NA	0.392	4.21	ok
37)	trichloroethene	NA	0.317	0.301	0.294	0.282	0.294	0.294	0.300	NA	0.286	NA	0.296	3.61	ok
38)	1,2-dichloropropane	NA	0.301	0.278	0.281	0.271	0.280	0.288	0.293	NA	0.278	NA	0.284	3.41	ok
39)	dibromomethane	NA	0.159	0.158	0.162	0.151	0.158	0.161	0.167	NA	0.160	NA	0.160	2.80	ok
40)	bromodichloromethane	NA	0.308	0.296	0.302	0.296	0.325	0.342	0.363	NA	0.348	NA	0.322	8.09	ok
41)	4-methyl-2-pentanone(MIBk	NA	0.081	0.095	0.080	0.084	0.086	0.082	NA	0.092	NA	0.094	0.087	6.81	ok
42)	cis-1,3-dichloropropene	0.460	0.374	0.359	0.367	0.362	0.394	0.418	0.438	NA	0.419	NA	0.399	9.12	ok
43)	Chlorobenzene-D5 IS	0.767	0.783	0.775	0.782	0.783	0.782	0.791	0.792	0.777	0.798	0.783	0.783	1.09	ok
44)	SS Toluene-d8_MS	0.988	0.995	0.993	0.998	0.991	0.993	1.006	0.996	0.998	1.012	1.007	0.998	0.75	ok
45)	toluene	NA	1.321	1.274	1.279	1.194	1.245	1.274	1.282	NA	1.190	NA	1.257	3.60	ok

(#) = Out of Range

Response Factor Report VOAMS5

Method : 5LID0819.M
Title : VOAMS5
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D			

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	AVG	%RSD	
46)	trans-1,3-dichloropropene	0.419	0.322	0.324	0.324	0.328	0.365	0.394	0.420	NA	0.400	NA	0.366	11.66	ok
47)	1,1,2-trichloroethane	NA	0.197	0.192	0.191	0.182	0.192	0.194	0.199	NA	0.190	NA	0.192	2.67	ok
48)	2-hexanone	NA	0.150	0.170	0.143	0.152	0.151	0.144	NA	0.156	NA	0.158	0.153	5.71	ok
49)	tetrachloroethene	NA	0.328	0.336	0.334	0.313	0.324	0.331	0.338	NA	0.323	NA	0.328	2.59	ok
50)	1,3-dichloropropane	NA	0.417	0.411	0.414	0.390	0.411	0.416	0.424	NA	0.399	NA	0.410	2.62	ok
51)	dibromochloromethane	NA	0.189	0.183	0.189	0.199	0.226	0.251	0.276	NA	0.272	NA	0.223	17.38	ok
52)	1,2-dibromoethane	NA	0.232	0.230	0.232	0.224	0.239	0.246	0.256	NA	0.245	NA	0.238	4.47	ok
53)	chlorobenzene	NA	0.881	0.856	0.861	0.812	0.840	0.868	0.872	NA	0.813	NA	0.850	3.09	ok
54)	1,1,1,2-tetrachloroethane	NA	0.235	0.237	0.237	0.237	0.263	0.278	0.289	NA	0.269	NA	0.255	8.46	ok
55)	ethylbenzene	NA	1.480	1.455	1.460	1.371	1.434	1.472	1.464	NA	1.314	NA	1.431	4.07	ok
56)	mp-xylene	0.731	0.591	0.575	0.580	0.553	0.577	0.591	0.586	NA	0.510	NA	0.588	10.05	ok
57)	o-xylene	NA	0.561	0.542	0.564	0.524	0.558	0.573	0.582	NA	0.537	NA	0.555	3.47	ok
58)	styrene	NA	0.872	0.864	0.900	0.869	0.926	0.966	0.976	NA	0.904	NA	0.910	4.76	ok
59)	bromoform	NA	0.096	0.095	0.096	0.104	0.124	0.145	NA	NA	NA	NA	0.110	18.52	ok
60)	iso-propylbenzene	NA	1.336	1.293	1.343	1.270	1.337	1.384	1.386	NA	1.269	NA	1.327	3.47	ok
61)	SS 4-BFB_MS	0.380	0.386	0.386	0.386	0.391	0.391	0.396	0.396	0.385	0.399	0.384	0.389	1.54	ok
62)	1,4-Dichlorobenzene-D4 IS	0.398	0.406	0.409	0.409	0.416	0.424	0.427	0.432	0.404	0.432	0.409	0.415	2.81	ok
63)	bromobenzene	NA	0.360	0.353	0.354	0.335	0.359	0.367	0.376	NA	0.355	NA	0.357	3.32	ok
64)	1,1,2,2-tetrachloroethane	NA	0.274	0.267	0.272	0.261	0.280	0.296	0.307	NA	0.288	NA	0.280	5.53	ok
65)	1,2,3-trichloropropane	NA	0.089	0.092	0.089	0.085	0.090	0.091	0.095	NA	0.090	NA	0.090	3.34	ok
66)	n-propylbenzene	NA	1.688	1.645	1.695	1.614	1.698	1.754	1.754	NA	1.600	NA	1.681	3.45	ok
67)	2-chlorotoluene	NA	1.071	1.033	1.049	0.995	1.034	1.058	1.054	NA	0.992	NA	1.036	2.80	ok

(#) = Out of Range

Response Factor Report VOAMS5

Method : 5LID0819.M
Title : VOAMS5
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration

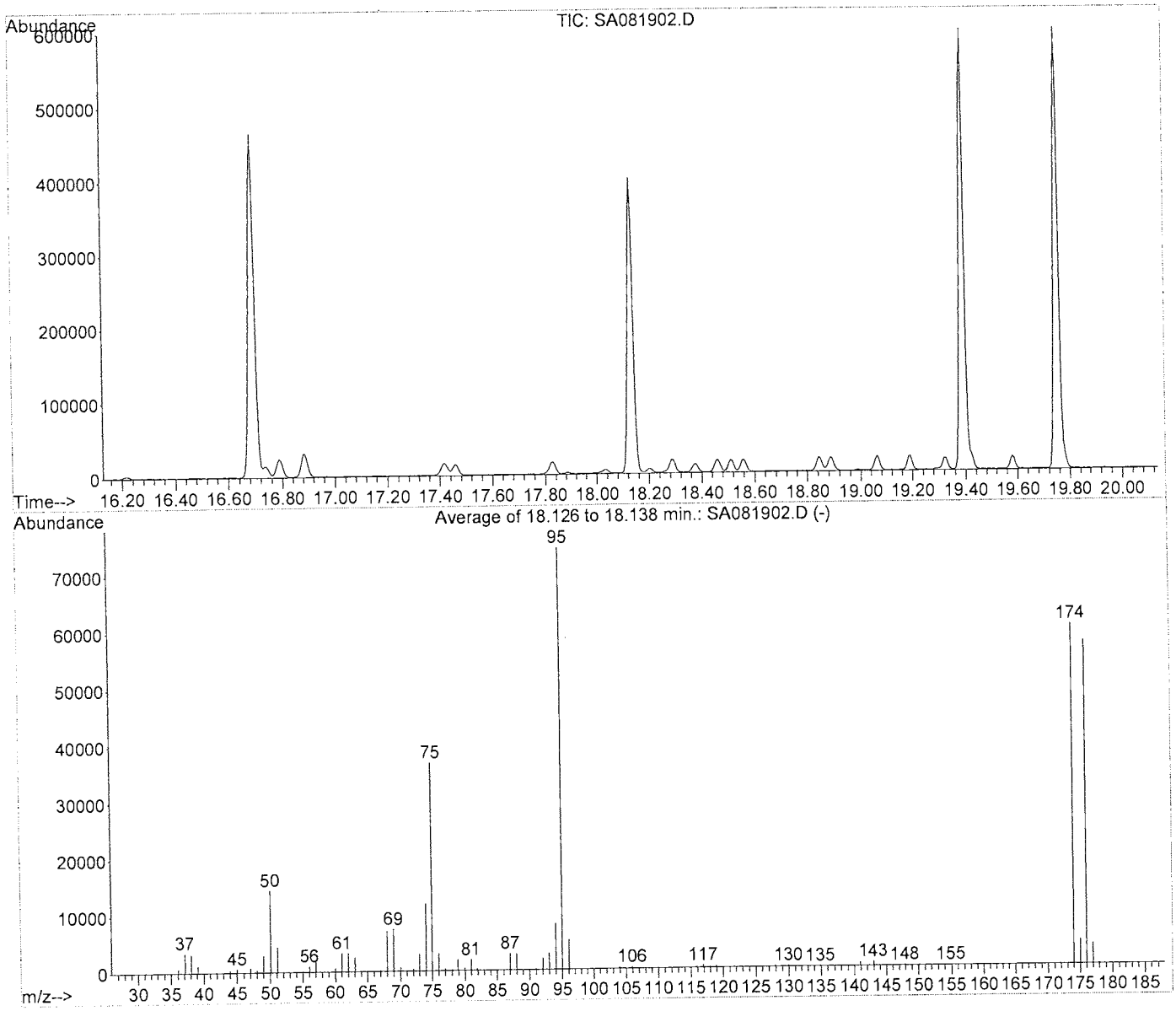
Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D			

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	AVG	%RSD	
68)	4-chlorotoluene	NA	1.066	1.051	1.058	1.008	1.056	1.078	1.081	NA	0.961	NA	1.045	3.90	ok
69)	1,3,5-trimethylbenzene	NA	1.160	1.160	1.187	1.137	1.208	1.235	1.250	NA	1.144	NA	1.185	3.56	ok
70)	tert-butylbenzene	NA	1.033	1.031	1.061	1.004	1.064	1.092	1.096	NA	1.001	NA	1.048	3.48	ok
71)	1,2,4-trimethylbenzene	NA	1.186	1.197	1.211	1.178	1.248	1.272	1.280	NA	1.154	NA	1.216	3.79	ok
72)	sec-butylbenzene	NA	1.436	1.443	1.485	1.413	1.504	1.542	1.561	NA	1.413	NA	1.474	3.89	ok
73)	1,3-dichlorobenzeneV	NA	0.692	0.674	0.694	0.654	0.696	0.717	0.731	NA	0.679	NA	0.692	3.51	ok
74)	p-isopropyltoluene	NA	1.201	1.207	1.234	1.204	1.294	1.339	1.348	NA	1.212	NA	1.255	5.00	ok
75)	1,4-dichlorobenzeneV	NA	0.719	0.677	0.694	0.655	0.692	0.713	0.729	NA	0.676	NA	0.694	3.58	ok
76)	1,2-dichlorobenzeneV	NA	0.652	0.629	0.648	0.608	0.643	0.663	0.680	NA	0.631	NA	0.644	3.42	ok
77)	n-butylbenzene	NA	0.975	0.998	1.042	1.016	1.093	1.139	1.151	NA	1.041	NA	1.057	6.10	ok
78)	SS 1,2-DCB-d4_MS	0.400	0.406	0.409	0.406	0.417	0.421	0.428	0.432	0.406	0.437	0.409	0.415	2.95	ok
79)	1,2-dibromo-3-chloropropar	NA	0.033	0.037	0.039	0.040	0.048	0.053	0.062	NA	0.061	NA	0.047	24.05	#
80)	1,3,5-trichlorobenzV	NA	0.374	0.375	0.377	0.363	0.394	0.412	0.431	NA	0.413	NA	0.392	6.11	ok
81)	1,2,4-trichlorobenzV	NA	0.314	0.303	0.312	0.300	0.333	0.345	0.368	NA	0.352	NA	0.328	7.60	ok
82)	hexachlorobutadieneV	0.181	0.137	0.133	0.137	0.128	0.142	0.150	0.158	NA	0.153	NA	0.146	11.01	ok
83)	naphthaleneV	NA	0.710	0.730	0.749	0.760	0.854	0.893	0.961	NA	0.909	NA	0.821	11.58	ok
84)	1,2,3-trichlorobenzV	NA	0.267	0.266	0.266	0.260	0.282	0.296	0.314	NA	0.302	NA	0.282	7.11	ok
85)	SS 2,5-DBT_MS	0.064	0.056	0.054	0.058	0.066	0.078	0.087	0.100	NA	0.100	NA	0.074	24.96	#

(#) = Out of Range

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2713

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	14562	PASS
75	95	30	60	49.5	36845	PASS
95	95	100	100	100.0	74490	PASS
96	95	5	9	7.0	5248	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.7	60133	PASS
175	174	5	9	7.3	4401	PASS
176	174	95	101	95.1	57202	PASS
177	176	5	9	6.5	3706	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:06:04 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

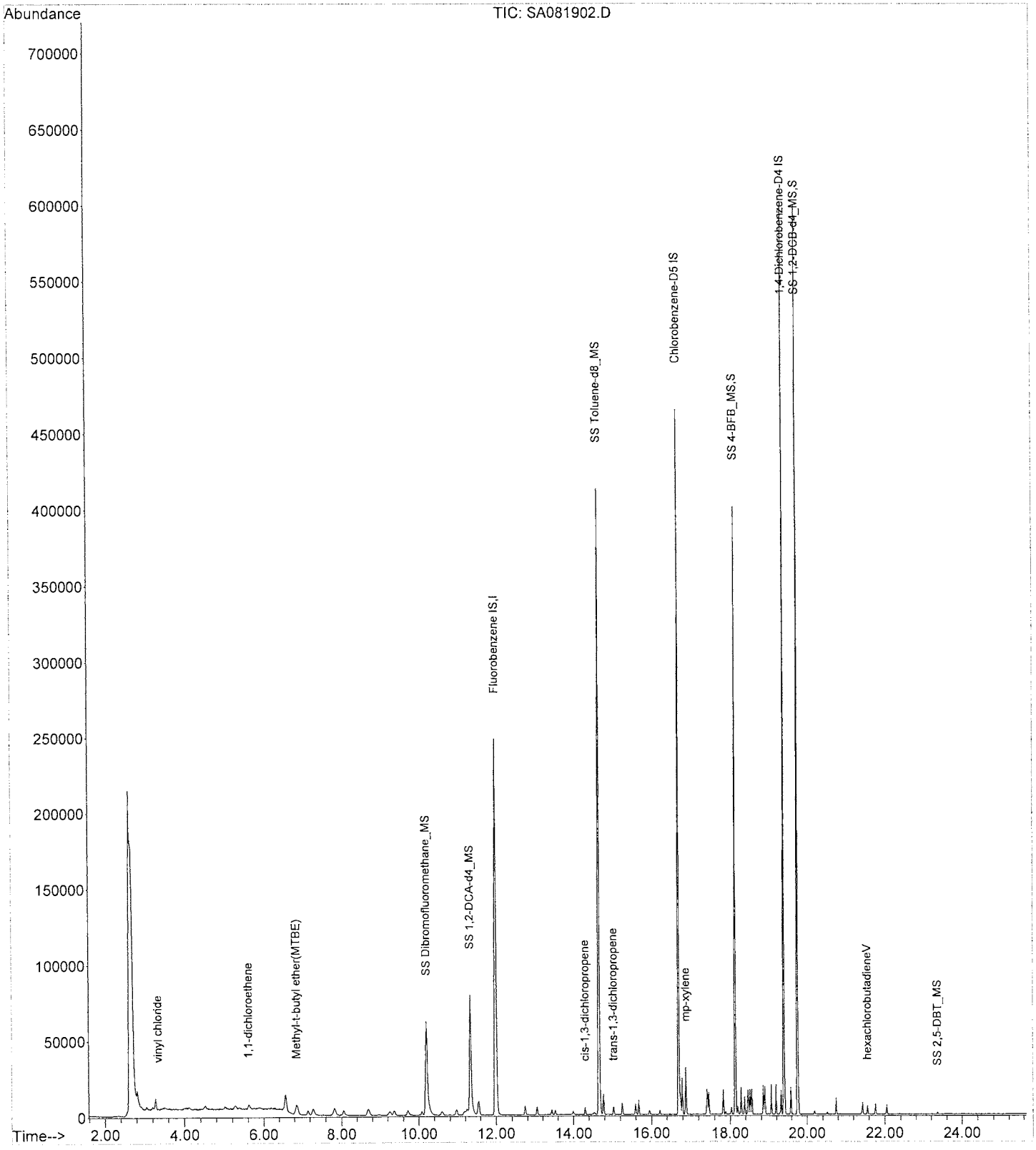
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329584	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	125297	10.51	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.10%			
78) SS 1,2-DCB-d4_MS	19.75	152	131904	9.23	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.33%			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	1326	0.353	ug/L	94
11) 1,1-dichloroethene	5.61	96	2165	0.310	ug/L	93
16) Methyl-t-butyl ether(MTBE)	6.85	73	11802	0.703	ug/L	95
29) SS Dibromofluoromethane_MS	10.20	111	76497	9.528	ug/L #	94
33) SS 1,2-DCA-d4_MS	11.34	65	95920	11.496	ug/L #	94
42) cis-1,3-dichloropropene	14.30	75	3030m	0.305	ug/L	
43) Chlorobenzene-D5 IS	16.69	117	252752	9.805	ug/L #	91
44) SS Toluene-d8_MS	14.65	98	325692	10.105	ug/L #	96
46) trans-1,3-dichloropropene	15.03	75	2763m	0.305	ug/L	
56) mp-xylene	16.89	106	9632m	0.529	ug/L	
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	131322	9.191	ug/L #	90
82) hexachlorobutadieneV	21.56	225	1191m	0.198	ug/L	
85) SS 2,5-DBT_MS	23.36	250	419	0.901	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 13:55 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07:05 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329809	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	127157	10.66	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.58%			
78) SS 1,2-DCB-d4_MS	19.75	152	133798	9.36	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.59%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.86	85	5495	0.765	ug/L #	97
3) chloromethane	3.20	50	5707	0.807	ug/L	95
4) vinyl chloride	3.34	62	2669	0.710	ug/L	98
5) bromomethane	4.01	94	2550	0.614	ug/L #	86
6) chloroethane	4.12	64	3173	0.646	ug/L	94
7) trichlorofluoromethane	4.52	101	6582	0.598	ug/L	97
8) diethyl ether	5.02	59	3340	0.659	ug/L #	85
9) 1,1,2-Trichlorotrifluoroet	5.27	101	4299	0.539	ug/L	97
11) 1,1-dichloroethene	5.62	96	4286	0.612	ug/L	93
13) methylene chloride	6.55	84	5568	0.626	ug/L	88
14) carbon disulfide	6.57	76	21843	0.725	ug/L #	87
15) acrylonitrile	6.81	53	1884	0.596	ug/L #	94
16) Methyl-t-butyl ether(MTBE)	6.86	73	23890	1.421	ug/L #	92
17) trans-1,2-dichloroethene	7.15	96	4391	0.520	ug/L	88
18) hexane	7.28	57	7629	0.751	ug/L #	88
19) Isopropyl ether(DIPE)	7.81	45	16735	0.812	ug/L	93
20) vinyl acetate	8.06	43	7696	0.813	ug/L #	88
21) 1,1-dichloroethane	8.05	63	8496	0.575	ug/L #	94
22) Ethyl-t-butyl ether(ETBE)	8.69	59	14445	0.852	ug/L	96
23) 2,2-dichloropropane	9.25	77	6317	0.715	ug/L #	86
24) cis-1,2-dichloroethene	9.36	61	6853	0.638	ug/L	90
25) 2-butanone(MEK)	8.98	43	2507	1.031	ug/L #	74
26) bromochloromethane	10.08	128	2293	0.468	ug/L #	84
27) Tetrahydrofuran(THF)	10.16	42	2168	1.382	ug/L #	70
28) chloroform	9.71	83	8621	0.321	ug/L #	96
29) SS Dibromofluoromethane_MS	10.20	111	77167	9.605	ug/L #	94
30) 1,1,1-trichloroethane	10.59	97	6614	0.581	ug/L #	95
31) carbon tetrachloride	11.17	117	5132	0.504	ug/L #	98
32) 1,1-dichloropropene	10.96	75	6894	0.673	ug/L #	81
33) SS 1,2-DCA-d4_MS	11.33	65	96496	11.557	ug/L #	94
34) tert-amyl methyl ether(TAM	11.25	73	12280	0.878	ug/L #	84
35) benzene	11.55	78	19919	0.549	ug/L #	93
36) 1,2-dichloroethane	11.54	62	6715	0.609	ug/L	97
37) trichloroethene	12.73	95	5229	0.575	ug/L #	90
38) 1,2-dichloropropane	13.05	63	4966	0.584	ug/L #	90
39) dibromomethane	13.53	93	2619	0.489	ug/L	97
40) bromodichloromethane	13.44	83	5080	0.518	ug/L	96
41) 4-methyl-2-pentanone(MIBK)	13.99	58	1329	0.676	ug/L #	70
42) cis-1,3-dichloropropene	14.30	75	6172	0.621	ug/L #	81
43) Chlorobenzene-D5 IS	16.69	117	258269	10.012	ug/L #	92
44) SS Toluene-d8_MS	14.66	98	328246	10.177	ug/L #	95
45) toluene	14.77	91	21776	0.537	ug/L #	98
46) trans-1,3-dichloropropene	15.03	75	5318	0.586	ug/L #	82

(#) = qualifier out of range (m) = manual integration
SA081903.D 5LID0819.M Tue Aug 27 09:40:25 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07:05 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

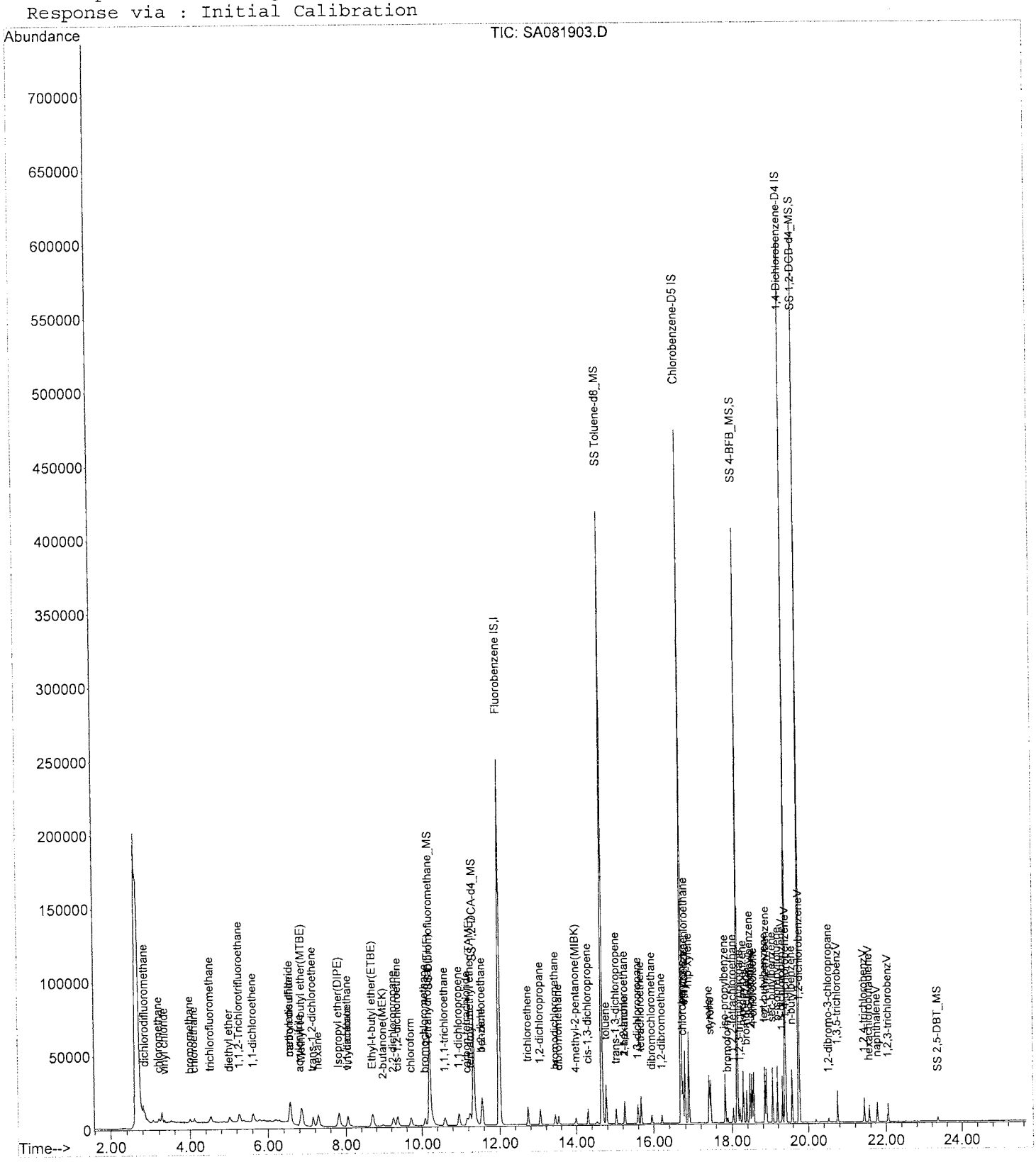
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
47)	1,1,2-trichloroethane	15.25	83	3249	0.498 ug/L #	94
48)	2-hexanone	15.25	43	2472	0.825 ug/L	89
49)	tetrachloroethene	15.67	166	5406	0.474 ug/L #	90
50)	1,3-dichloropropane	15.60	76	6873	0.537 ug/L #	71
51)	dibromochloromethane	15.95	129	3110	0.435 ug/L #	99
52)	1,2-dibromoethane	16.22	107	3819	0.495 ug/L #	97
53)	chlorobenzene	16.74	112	14527	0.492 ug/L #	88
54)	1,1,1,2-tetrachloroethane	16.79	131	3883	0.442 ug/L #	72
55)	ethylbenzene	16.79	91	24410	0.552 ug/L #	97
56)	mp-xylene	16.89	106	19484	1.068 ug/L #	93
57)	o-xylene	17.41	106	9249	0.589 ug/L #	91
58)	styrene	17.46	104	14381	0.535 ug/L #	95
59)	bromoform	17.89	173	1581	0.529 ug/L #	87
60)	iso-propylbenzene	17.83	105	22039	0.591 ug/L #	96
62)	1,4-Dichlorobenzene-D4 IS	19.39	152	133996	9.372 ug/L #	90
63)	bromobenzene	18.38	156	5941	0.477 ug/L #	88
64)	1,1,2,2-tetrachloroethane	18.04	83	4520	0.481 ug/L #	1
65)	1,2,3-trichloropropane	18.21	110	1461	0.477 ug/L	82
66)	n-propylbenzene	18.28	91	27830	0.552 ug/L	97
67)	2-chlorotoluene	18.51	91	17667	0.548 ug/L	96
68)	4-chlorotoluene	18.56	91	17575	0.541 ug/L	97
69)	1,3,5-trimethylbenzene	18.46	105	19128	0.554 ug/L	98
70)	tert-butylbenzene	18.84	119	17039	0.561 ug/L #	93
71)	1,2,4-trimethylbenzene	18.89	105	19553	0.537 ug/L #	96
72)	sec-butylbenzene	19.06	105	23673	0.539 ug/L	97
73)	1,3-dichlorobenzeneV	19.32	146	11415	0.480 ug/L	96
74)	p-isopropyltoluene	19.19	119	19803	0.538 ug/L #	96
75)	1,4-dichlorobenzeneV	19.42	146	11852m	0.476 ug/L	
76)	1,2-dichlorobenzeneV	19.78	146	10753	0.465 ug/L #	1
77)	n-butylbenzene	19.58	91	16083	0.513 ug/L #	98
79)	1,2-dibromo-3-chloropropan	20.52	157	545	0.362 ug/L #	84
80)	1,3,5-trichlorobenzV	20.75	180	6169	0.445 ug/L #	90
81)	1,2,4-trichlorobenzV	21.44	180	5182	0.483 ug/L #	91
82)	hexachlorobutadieneV	21.56	225	2252	0.374 ug/L	93
83)	naphthaleneV	21.76	128	11707	0.896 ug/L #	98
84)	1,2,3-trichlorobenzV	22.05	180	4411	0.458 ug/L #	91
85)	SS 2,5-DBT_MS	23.36	250	921	1.074 ug/L #	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07:56 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331046	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	127655	10.66	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.60%			
78) SS 1,2-DCB-d4_MS	19.75	152	135388	9.43	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.35%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	12564	1.742	ug/L	98
3) chloromethane	3.19	50	11863	1.670	ug/L	100
4) vinyl chloride	3.34	62	5780	1.532	ug/L	100
5) bromomethane	3.99	94	4980	1.194	ug/L #	92
6) chloroethane	4.11	64	6898	1.398	ug/L	99
7) trichlorofluoromethane	4.52	101	14555	1.318	ug/L	98
8) diethyl ether	5.03	59	7616	1.497	ug/L	89
9) 1,1,2-Trichlorotrifluoroet	5.27	101	10431	1.303	ug/L #	87
10) acetone	5.39	43	3086	1.568	ug/L #	73
11) 1,1-dichloroethene	5.61	96	8518	1.212	ug/L	95
12) tert-Butyl Alcohol(TBA)	5.78	59	4046	9.228	ug/L #	84
13) methylene chloride	6.55	84	9698	1.086	ug/L	87
14) carbon disulfide	6.57	76	31835	1.290	ug/L #	94
15) acrylonitrile	6.82	53	4377	1.379	ug/L	97
16) Methyl-t-butyl ether(MTBE)	6.85	73	50348	2.984	ug/L #	92
17) trans-1,2-dichloroethene	7.15	96	8789	1.037	ug/L	91
18) hexane	7.29	57	15861	1.555	ug/L #	89
19) Isopropyl ether(DIPE)	7.81	45	31465	1.522	ug/L	96
20) vinyl acetate	8.05	43	17655	1.858	ug/L #	93
21) 1,1-dichloroethane	8.05	63	16758	1.129	ug/L #	94
22) Ethyl-t-butyl ether(ETBE)	8.70	59	27729	1.630	ug/L	96
23) 2,2-dichloropropane	9.24	77	11874	1.339	ug/L	92
24) cis-1,2-dichloroethene	9.36	61	12247	1.136	ug/L	96
25) 2-butanone(MEK)	8.98	43	4672	1.914	ug/L #	85
26) bromochloromethane	10.08	128	4642	0.945	ug/L #	88
27) Tetrahydrofuran(THF)	10.18	42	3670	2.330	ug/L #	79
28) chloroform	9.71	83	16503	0.884	ug/L	97
29) SS Dibromofluoromethane_MS	10.20	111	78237	9.702	ug/L #	94
30) 1,1,1-trichloroethane	10.60	97	12866	1.125	ug/L	97
31) carbon tetrachloride	11.17	117	10403	1.018	ug/L #	97
32) 1,1-dichloropropene	10.96	75	13340	1.298	ug/L #	82
33) SS 1,2-DCA-d4_MS	11.33	65	97737	11.662	ug/L #	94
34) tert-amyl methyl ether(TAM	11.24	73	23753	1.691	ug/L #	85
35) benzene	11.55	78	38760	1.064	ug/L #	95
36) 1,2-dichloroethane	11.53	62	13328	1.205	ug/L	97
37) trichloroethene	12.73	95	9969	1.092	ug/L #	91
38) 1,2-dichloropropane	13.05	63	9198	1.078	ug/L #	90
39) dibromomethane	13.53	93	5241	0.974	ug/L #	95
40) bromodichloromethane	13.44	83	9783	0.995	ug/L #	97
41) 4-methyl-2-pentanone(MIBK)	13.99	58	3134	1.589	ug/L	81
42) cis-1,3-dichloropropene	14.30	75	11883	1.191	ug/L #	82
43) Chlorobenzene-D5 IS	16.69	117	256587	9.910	ug/L #	91
44) SS Toluene-d8_MS	14.65	98	328729	10.154	ug/L #	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07:56 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

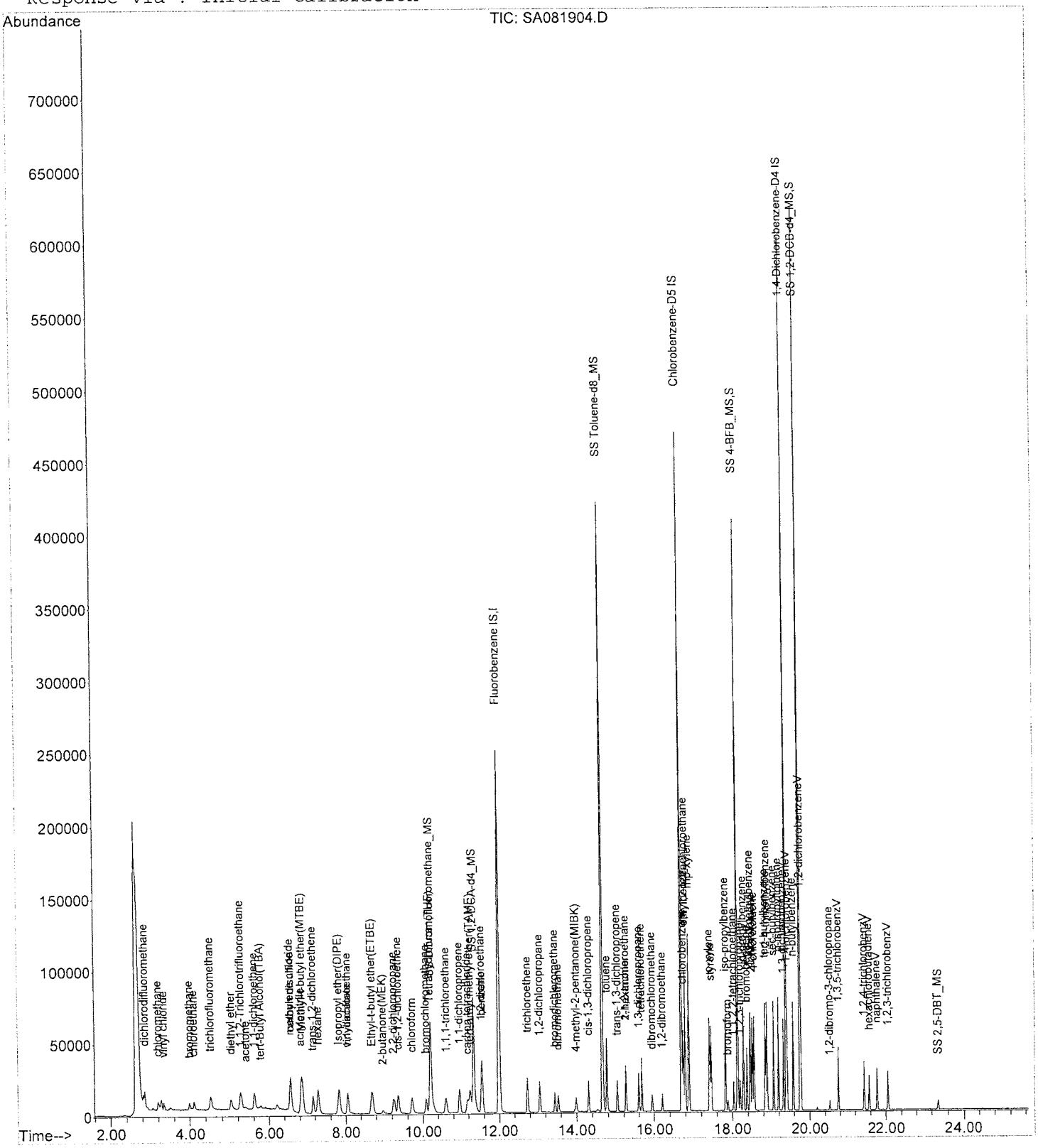
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	42180	1.037 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	10719	1.176 ug/L #	85
47) 1,1,2-trichloroethane	15.25	83	6360	0.970 ug/L #	93
48) 2-hexanone	15.25	43	5641	1.875 ug/L	91
49) tetrachloroethene	15.67	166	11126	0.972 ug/L #	94
50) 1,3-dichloropropane	15.60	76	13608	1.059 ug/L #	78
51) dibromochloromethane	15.95	129	6051	0.843 ug/L #	97
52) 1,2-dibromoethane	16.22	107	7628	0.985 ug/L #	99
53) chlorobenzene	16.74	112	28347	0.957 ug/L #	91
54) 1,1,1,2-tetrachloroethane	16.79	131	7835	0.889 ug/L #	73
55) ethylbenzene	16.79	91	48153	1.085 ug/L #	97
56) mp-xylene	16.89	106	38052	2.079 ug/L #	93
57) o-xylene	17.41	106	17949	1.138 ug/L #	93
58) styrene	17.46	104	28616	1.060 ug/L #	94
59) bromoform	17.89	173	3143	0.869 ug/L #	92
60) iso-propylbenzene	17.83	105	42810	1.144 ug/L #	97
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	135437	9.437 ug/L #	90
63) bromobenzene	18.38	156	11673	0.933 ug/L #	87
64) 1,1,2,2-tetrachloroethane	18.04	83	8834	0.936 ug/L #	1
65) 1,2,3-trichloropropane	18.21	110	3033	0.987 ug/L	94
66) n-propylbenzene	18.28	91	54448	1.075 ug/L	97
67) 2-chlorotoluene	18.51	91	34205	1.058 ug/L	96
68) 4-chlorotoluene	18.56	91	34795	1.068 ug/L	95
69) 1,3,5-trimethylbenzene	18.46	105	38409	1.109 ug/L	97
70) tert-butylbenzene	18.84	119	34129	1.120 ug/L	94
71) 1,2,4-trimethylbenzene	18.89	105	39627	1.085 ug/L	97
72) sec-butylbenzene	19.06	105	47759	1.084 ug/L	97
73) 1,3-dichlorobenzeneV	19.32	146	22296	0.933 ug/L	97
74) p-isopropyltoluene	19.19	119	39947	1.081 ug/L #	96
75) 1,4-dichlorobenzeneV	19.42	146	22414	0.898 ug/L #	89
76) 1,2-dichlorobenzeneV	19.77	146	20836	0.898 ug/L #	28
77) n-butylbenzene	19.58	91	33045	1.050 ug/L	97
79) 1,2-dibromo-3-chloropropan	20.52	157	1237	0.819 ug/L #	82
80) 1,3,5-trichlorobenzV	20.75	180	12414	0.891 ug/L #	90
81) 1,2,4-trichlorobenzV	21.44	180	10022	0.930 ug/L #	90
82) hexachlorobutadieneV	21.56	225	4402	0.728 ug/L #	90
83) naphthaleneV	21.76	128	24159	1.333 ug/L	99
84) 1,2,3-trichlorobenzV	22.05	180	8796	0.910 ug/L #	91
85) SS 2,5-DBT_MS	23.36	250	1783	1.368 ug/L #	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:07 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:09:05 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	319447	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	123334	10.67	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.73%				
78) SS 1,2-DCB-d4_MS	19.75	152	129791	9.37	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.73%				
Target Compounds							Qvalue
2) dichlorodifluoromethane	2.85	85	20603	2.961	ug/L		99
3) chloromethane	3.20	50	19547	2.852	ug/L		99
4) vinyl chloride	3.34	62	9660	2.654	ug/L		99
5) bromomethane	4.00	94	8033	1.997	ug/L		95
6) chloroethane	4.12	64	11601	2.437	ug/L		98
7) trichlorofluoromethane	4.52	101	24102	2.262	ug/L		98
8) diethyl ether	5.02	59	12737	2.594	ug/L		91
9) 1,1,2-Trichlorotrifluoroet	5.27	101	17137	2.219	ug/L		93
10) acetone	5.38	43	4673	2.835	ug/L		96
11) 1,1-dichloroethene	5.61	96	15933	2.350	ug/L		92
12) tert-Butyl Alcohol(TBA)	5.78	59	7357	17.390	ug/L	#	67
13) methylene chloride	6.55	84	19624	2.277	ug/L		88
14) carbon disulfide	6.57	76	51897	2.542	ug/L		96
15) acrylonitrile	6.82	53	7139	2.331	ug/L		99
16) Methyl-t-butyl ether(MTBE)	6.85	73	88412	5.430	ug/L	#	94
17) trans-1,2-dichloroethene	7.15	96	17490	2.139	ug/L		91
18) hexane	7.28	57	26198	2.661	ug/L	#	91
19) Isopropyl ether(DIPE)	7.82	45	61129	3.064	ug/L		96
20) vinyl acetate	8.05	43	29146	3.178	ug/L	#	94
21) 1,1-dichloroethane	8.05	63	31798	2.220	ug/L	#	97
22) Ethyl-t-butyl ether(ETBE)	8.70	59	53393	3.253	ug/L		94
23) 2,2-dichloropropane	9.25	77	23815	2.782	ug/L		94
24) cis-1,2-dichloroethene	9.36	61	25574	2.458	ug/L		92
25) 2-butanone(MEK)	8.96	43	7612	3.231	ug/L	#	85
26) bromochloromethane	10.08	128	9132	1.926	ug/L	#	87
27) Tetrahydrofuran(THF)	10.16	42	5556	3.656	ug/L	#	84
28) chloroform	9.71	83	31108	2.012	ug/L	#	96
29) SS Dibromofluoromethane_MS	10.20	111	75381	9.687	ug/L	#	93
30) 1,1,1-trichloroethane	10.60	97	25378	2.300	ug/L		97
31) carbon tetrachloride	11.17	117	19915	2.020	ug/L	#	97
32) 1,1-dichloropropene	10.97	75	25741	2.596	ug/L	#	85
33) SS 1,2-DCA-d4_MS	11.33	65	93786	11.597	ug/L	#	94
34) tert-amyl methyl ether(TAM	11.24	73	45373	3.348	ug/L	#	85
35) benzene	11.55	78	75148	2.137	ug/L	#	96
36) 1,2-dichloroethane	11.54	62	26250	2.459	ug/L		99
37) trichloroethene	12.73	95	18813	2.136	ug/L	#	93
38) 1,2-dichloropropane	13.05	63	17934	2.179	ug/L	#	92
39) dibromomethane	13.53	93	10335	1.991	ug/L	#	93
40) bromodichloromethane	13.44	83	19293	2.033	ug/L	#	98
41) 4-methyl-2-pentanone(MIBK)	13.99	58	5142	2.702	ug/L		83
42) cis-1,3-dichloropropene	14.30	75	23435	2.435	ug/L	#	84
43) Chlorobenzene-D5 IS	16.69	117	249650	9.992	ug/L	#	92
44) SS Toluene-d8_MS	14.65	98	318656	10.200	ug/L	#	96

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:09:05 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

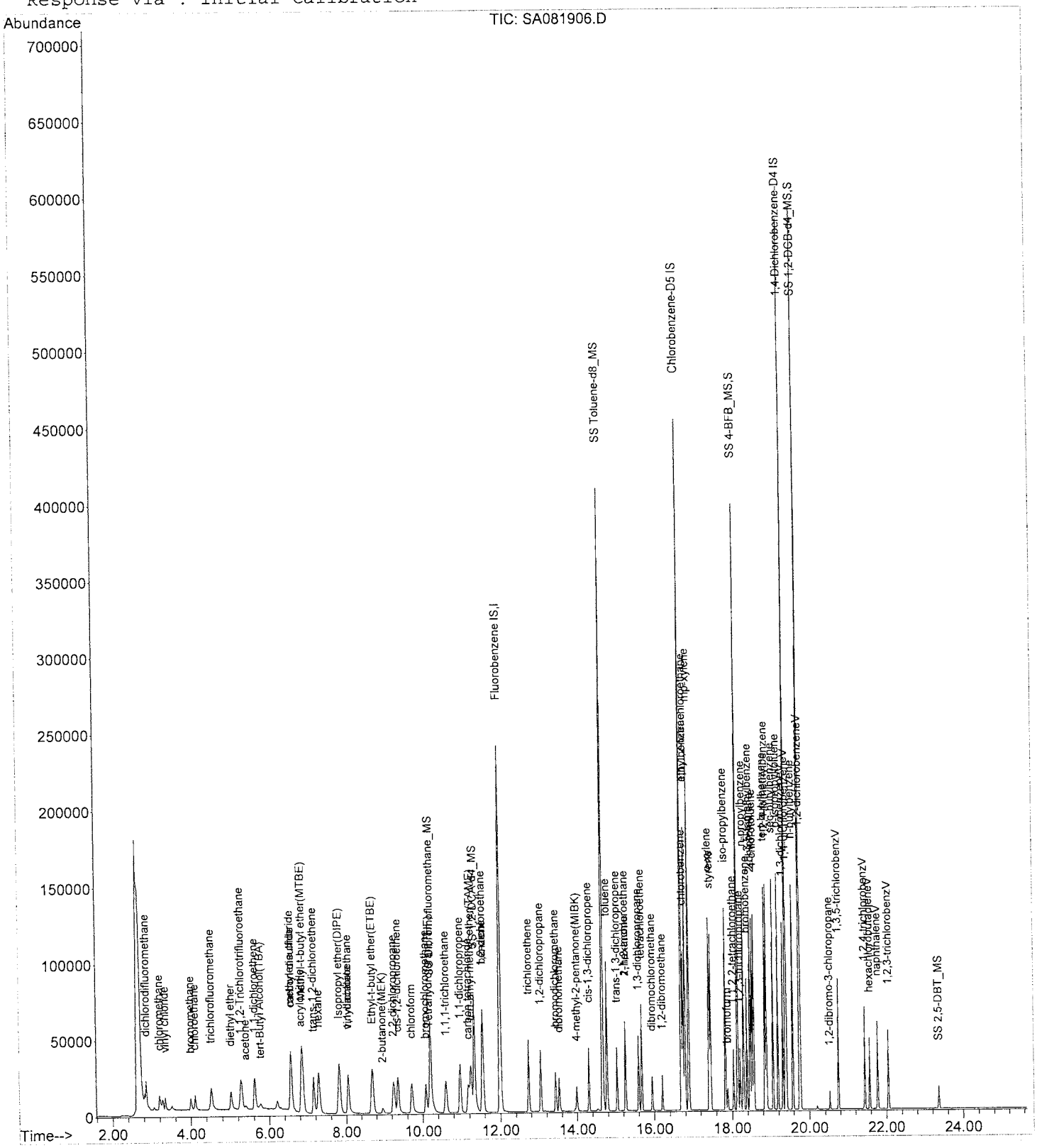
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	81742	2.082 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	20701	2.354 ug/L #	84
47) 1,1,2-trichloroethane	15.25	83	12172	1.924 ug/L #	92
48) 2-hexanone	15.25	43	9113	3.139 ug/L	90
49) tetrachloroethene	15.67	166	21366	1.933 ug/L #	93
50) 1,3-dichloropropane	15.59	76	26443	2.132 ug/L #	80
51) dibromochloromethane	15.95	129	12078	1.744 ug/L #	99
52) 1,2-dibromoethane	16.22	107	14844	1.986 ug/L #	100
53) chlorobenzene	16.74	112	55032	1.925 ug/L #	93
54) 1,1,1,2-tetrachloroethane	16.79	131	15120	1.777 ug/L	99
55) ethylbenzene	16.79	91	93282	2.179 ug/L #	97
56) mp-xylene	16.89	106	74104	4.196 ug/L #	91
57) o-xylene	17.41	106	36012	2.367 ug/L #	95
58) styrene	17.46	104	57490	2.206 ug/L #	95
59) bromoform	17.88	173	6115	1.565 ug/L #	89
60) iso-propylbenzene	17.83	105	85828	2.378 ug/L #	97
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	130715	9.439 ug/L #	91
63) bromobenzene	18.38	156	22626	1.874 ug/L #	88
64) 1,1,2,2-tetrachloroethane	18.03	83	17355	1.905 ug/L #	1
65) 1,2,3-trichloropropane	18.21	110	5701	1.922 ug/L	91
66) n-propylbenzene	18.28	91	108302	2.216 ug/L	97
67) 2-chlorotoluene	18.51	91	67012	2.148 ug/L	96
68) 4-chlorotoluene	18.56	91	67613	2.150 ug/L	96
69) 1,3,5-trimethylbenzene	18.46	105	75808	2.267 ug/L	97
70) tert-butylbenzene	18.84	119	67760	2.304 ug/L	94
71) 1,2,4-trimethylbenzene	18.89	105	77341	2.194 ug/L	98
72) sec-butylbenzene	19.06	105	94866	2.232 ug/L	97
73) 1,3-dichlorobenzeneV	19.32	146	44339	1.924 ug/L	97
74) p-isopropyltoluene	19.19	119	78820	2.210 ug/L #	96
75) 1,4-dichlorobenzeneV	19.42	146	44318	1.839 ug/L	94
76) 1,2-dichlorobenzeneV	19.77	146	41371	1.848 ug/L #	90
77) n-butylbenzene	19.58	91	66590	2.192 ug/L #	97
79) 1,2-dibromo-3-chloropropan	20.52	157	2460	1.688 ug/L #	88
80) 1,3,5-trichlorobenzV	20.75	180	24093	1.793 ug/L #	90
81) 1,2,4-trichlorobenzV	21.44	180	19943	1.918 ug/L #	89
82) hexachlorobutadieneV	21.56	225	8743	1.498 ug/L #	91
83) naphthaleneV	21.76	128	47834	2.228 ug/L #	99
84) 1,2,3-trichlorobenzV	22.05	180	17026	1.826 ug/L #	92
85) SS 2,5-DBT_MS	23.36	250	3717	2.077 ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:09 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:09:51 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	320805	10.000 ug/L	0.00
System Monitoring Compounds					
61) SS 4-BFB_MS	18.13	95	125430	10.81 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.09%		
78) SS 1,2-DCB-d4_MS	19.75	152	133725	9.62 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.16%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.86	85	52735	7.546 ug/L	99
3) chloromethane	3.19	50	48146	6.995 ug/L	100
4) vinyl chloride	3.34	62	23140	6.330 ug/L	100
5) bromomethane	4.00	94	20450	5.061 ug/L #	99
6) chloroethane	4.12	64	29303	6.129 ug/L	96
7) trichlorofluoromethane	4.52	101	62572	5.848 ug/L	98
8) diethyl ether	5.02	59	32652	6.622 ug/L	96
9) 1,1,2-Trichlorotrifluoroet	5.27	101	42573	5.490 ug/L	96
10) acetone	5.38	43	10264	6.979 ug/L	94
11) 1,1-dichloroethene	5.61	96	36739	5.396 ug/L	91
12) tert-Butyl Alcohol(TBA)	5.77	59	16528	38.901 ug/L #	82
13) methylene chloride	6.55	84	42886	4.954 ug/L	89
14) carbon disulfide	6.57	76	111777	6.052 ug/L	98
15) acrylonitrile	6.82	53	17825	5.795 ug/L	96
16) Methyl-t-butyl ether(MTBE)	6.85	73	216505	13.242 ug/L #	95
17) trans-1,2-dichloroethene	7.15	96	40969	4.989 ug/L	91
18) hexane	7.28	57	67117	6.789 ug/L	93
19) Isopropyl ether(DIPE)	7.82	45	143629	7.168 ug/L	96
20) vinyl acetate	8.06	43	72699	7.893 ug/L	95
21) 1,1-dichloroethane	8.05	63	75512	5.250 ug/L	98
22) Ethyl-t-butyl ether(ETBE)	8.69	59	126117	7.651 ug/L	94
23) 2,2-dichloropropane	9.25	77	56793	6.607 ug/L	97
24) cis-1,2-dichloroethene	9.36	61	60826	5.821 ug/L	91
25) 2-butanone(MEK)	8.97	43	17834	7.538 ug/L #	90
26) bromochloromethane	10.08	128	21282	4.469 ug/L #	85
27) Tetrahydrofuran(THF)	10.16	42	12622	8.270 ug/L	88
28) chloroform	9.71	83	72795	5.087 ug/L #	96
29) SS Dibromofluoromethane_MS	10.20	111	76274	9.761 ug/L #	95
30) 1,1,1-trichloroethane	10.60	97	60406	5.453 ug/L	97
31) carbon tetrachloride	11.17	117	48262	4.875 ug/L #	96
32) 1,1-dichloropropene	10.96	75	60041	6.029 ug/L #	86
33) SS 1,2-DCA-d4_MS	11.34	65	93843	11.555 ug/L #	93
34) tert-amyl methyl ether(TAM	11.24	73	108618	7.981 ug/L #	86
35) benzene	11.56	78	176668	5.002 ug/L #	96
36) 1,2-dichloroethane	11.54	62	61309	5.718 ug/L	99
37) trichloroethene	12.73	95	45171	5.108 ug/L #	92
38) 1,2-dichloropropane	13.05	63	43515	5.265 ug/L #	94
39) dibromomethane	13.53	93	24271	4.656 ug/L #	95
40) bromodichloromethane	13.44	83	47407	4.974 ug/L #	98
41) 4-methyl-2-pentanone(MIBK)	13.99	58	13485	7.056 ug/L	83
42) cis-1,3-dichloropropene	14.30	75	58094	6.011 ug/L #	85
43) Chlorobenzene-D5 IS	16.69	117	251289	10.015 ug/L #	92
44) SS Toluene-d8_MS	14.65	98	317981	10.135 ug/L #	96

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:09:51 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

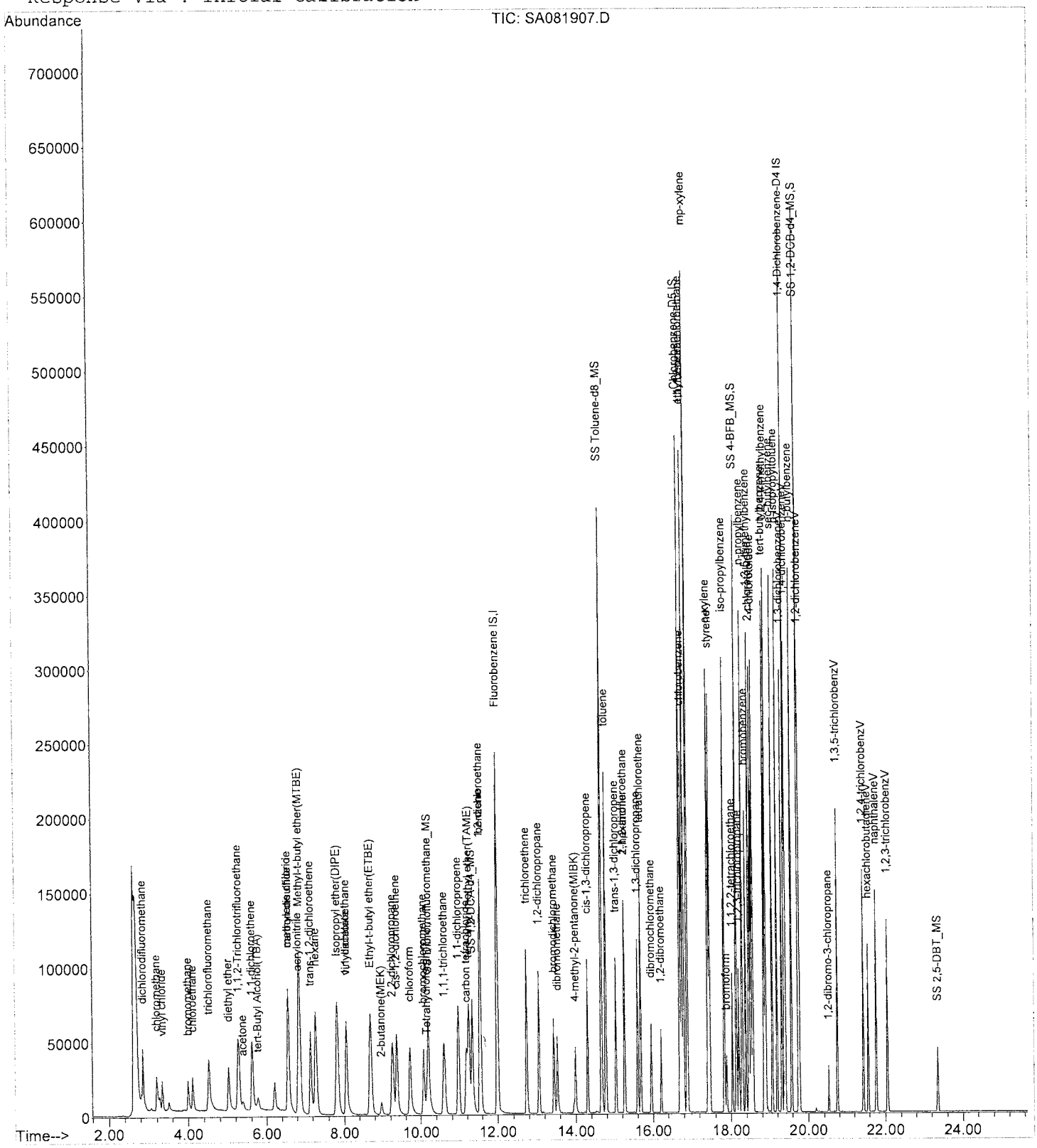
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	191504	4.857 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	52570	5.952 ug/L #	87
47) 1,1,2-trichloroethane	15.25	83	29245	4.604 ug/L	94
48) 2-hexanone	15.25	43	24389	8.364 ug/L	92
49) tetrachloroethene	15.67	166	50144	4.518 ug/L #	94
50) 1,3-dichloropropane	15.60	76	62562	5.024 ug/L #	82
51) dibromochloromethane	15.95	129	31928	4.590 ug/L #	99
52) 1,2-dibromoethane	16.22	107	35917	4.785 ug/L #	99
53) chlorobenzene	16.74	112	130184	4.534 ug/L #	92
54) 1,1,1,2-tetrachloroethane	16.79	131	38004	4.447 ug/L	99
55) ethylbenzene	16.79	91	219934	5.115 ug/L #	97
56) mp-xylene	16.89	106	177354	9.999 ug/L #	93
57) o-xylene	17.41	106	84117	5.505 ug/L #	93
58) styrene	17.46	104	139333	5.325 ug/L #	96
59) bromoform	17.89	173	16642	3.894 ug/L #	91
60) iso-propylbenzene	17.83	105	203714	5.620 ug/L #	97
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	133403	9.593 ug/L #	93
63) bromobenzene	18.38	156	53742	4.433 ug/L #	87
64) 1,1,2,2-tetrachloroethane	18.03	83	41833	4.573 ug/L	98
65) 1,2,3-trichloropropane	18.20	110	13604	4.568 ug/L	92
66) n-propylbenzene	18.28	91	258877	5.275 ug/L	97
67) 2-chlorotoluene	18.51	91	159569	5.093 ug/L	96
68) 4-chlorotoluene	18.56	91	161678	5.120 ug/L	96
69) 1,3,5-trimethylbenzene	18.46	105	182407	5.433 ug/L	97
70) tert-butylbenzene	18.84	119	161039	5.453 ug/L	95
71) 1,2,4-trimethylbenzene	18.89	105	188944	5.338 ug/L	97
72) sec-butylbenzene	19.06	105	226722	5.312 ug/L	97
73) 1,3-dichlorobenzeneV	19.32	146	104856	4.530 ug/L	96
74) p-isopropyltoluene	19.19	119	193097	5.391 ug/L	97
75) 1,4-dichlorobenzeneV	19.42	146	105039m	4.341 ug/L	
76) 1,2-dichlorobenzeneV	19.78	146	97597	4.342 ug/L #	85
77) n-butylbenzene	19.58	91	162983	5.342 ug/L	98
79) 1,2-dibromo-3-chloropropan	20.52	157	6339	4.331 ug/L #	87
80) 1,3,5-trichlorobenzV	20.75	180	58265	4.317 ug/L #	90
81) 1,2,4-trichlorobenzV	21.44	180	48079	4.605 ug/L #	90
82) hexachlorobutadieneV	21.56	225	20536	3.503 ug/L #	90
83) naphthaleneV	21.76	128	121958	4.915 ug/L #	98
84) 1,2,3-trichlorobenzV	22.05	180	41777	4.462 ug/L #	91
85) SS 2,5-DBT_MS	23.36	250	10510	4.473 ug/L #	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:10 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:10:44 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	329680	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	128857	10.81	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.05%				
78) SS 1,2-DCB-d4_MS	19.75	152	138658	9.70	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.03%				
Target Compounds							Qvalue
2) dichlorodifluoromethane	2.85	85	103983	14.478	ug/L		99
3) chloromethane	3.19	50	91726	12.968	ug/L		100
4) vinyl chloride	3.34	62	44632	11.881	ug/L		98
5) bromomethane	3.99	94	45838	11.039	ug/L	#	99
6) chloroethane	4.11	64	57305	11.663	ug/L		96
7) trichlorofluoromethane	4.52	101	123758	11.256	ug/L		99
8) diethyl ether	5.02	59	64977	12.822	ug/L		95
9) 1,1,2-Trichlorotrifluoroet	5.27	101	84181	10.563	ug/L		96
10) acetone	5.39	43	20604	14.259	ug/L		98
11) 1,1-dichloroethene	5.61	96	78878	11.274	ug/L		91
12) tert-Butyl Alcohol(TBA)	5.77	59	34099	78.097	ug/L	#	84
13) methylene chloride	6.55	84	87611	9.849	ug/L		89
14) carbon disulfide	6.57	76	234063	12.877	ug/L		100
15) acrylonitrile	6.82	53	36171	11.443	ug/L		98
16) Methyl-t-butyl ether(MTBE)	6.85	73	451396	26.865	ug/L	#	95
17) trans-1,2-dichloroethene	7.15	96	87734	10.396	ug/L		92
18) hexane	7.28	57	129654	12.762	ug/L		93
19) Isopropyl ether(DIPE)	7.81	45	305985	14.859	ug/L		96
20) vinyl acetate	8.05	43	142119	15.014	ug/L		95
21) 1,1-dichloroethane	8.05	63	162892	11.020	ug/L		99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	269357	15.901	ug/L		94
23) 2,2-dichloropropane	9.25	77	119382	13.514	ug/L		97
24) cis-1,2-dichloroethene	9.36	61	127369	11.862	ug/L		92
25) 2-butanone(MEK)	8.96	43	35397	14.559	ug/L		91
26) bromochloromethane	10.08	128	46322	9.466	ug/L		88
27) Tetrahydrofuran(THF)	10.16	42	24632	15.705	ug/L		90
28) chloroform	9.71	83	155938	10.929	ug/L	#	96
29) SS Dibromofluoromethane_MS	10.20	111	78654	9.794	ug/L	#	94
30) 1,1,1-trichloroethane	10.59	97	129263	11.354	ug/L		98
31) carbon tetrachloride	11.17	117	108911	10.704	ug/L	#	97
32) 1,1-dichloropropene	10.96	75	127800	12.488	ug/L	#	87
33) SS 1,2-DCA-d4_MS	11.33	65	95691	11.465	ug/L	#	93
34) tert-amyl methyl ether(TAM	11.24	73	232612	16.632	ug/L	#	85
35) benzene	11.55	78	373237	10.284	ug/L		96
36) 1,2-dichloroethane	11.53	62	129205	11.726	ug/L		99
37) trichloroethene	12.73	95	96961	10.669	ug/L	#	93
38) 1,2-dichloropropane	13.05	63	92382	10.877	ug/L	#	95
39) dibromomethane	13.53	93	52221	9.748	ug/L	#	95
40) bromodichloromethane	13.44	83	107082	10.934	ug/L		98
41) 4-methyl-2-pentanone(MIBK)	13.99	58	28342	14.430	ug/L		85
42) cis-1,3-dichloropropene	14.30	75	129780	13.066	ug/L	#	86
43) Chlorobenzene-D5 IS	16.69	117	257906	10.002	ug/L	#	92
44) SS Toluene-d8_MS	14.65	98	327525	10.159	ug/L	#	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:10:44 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

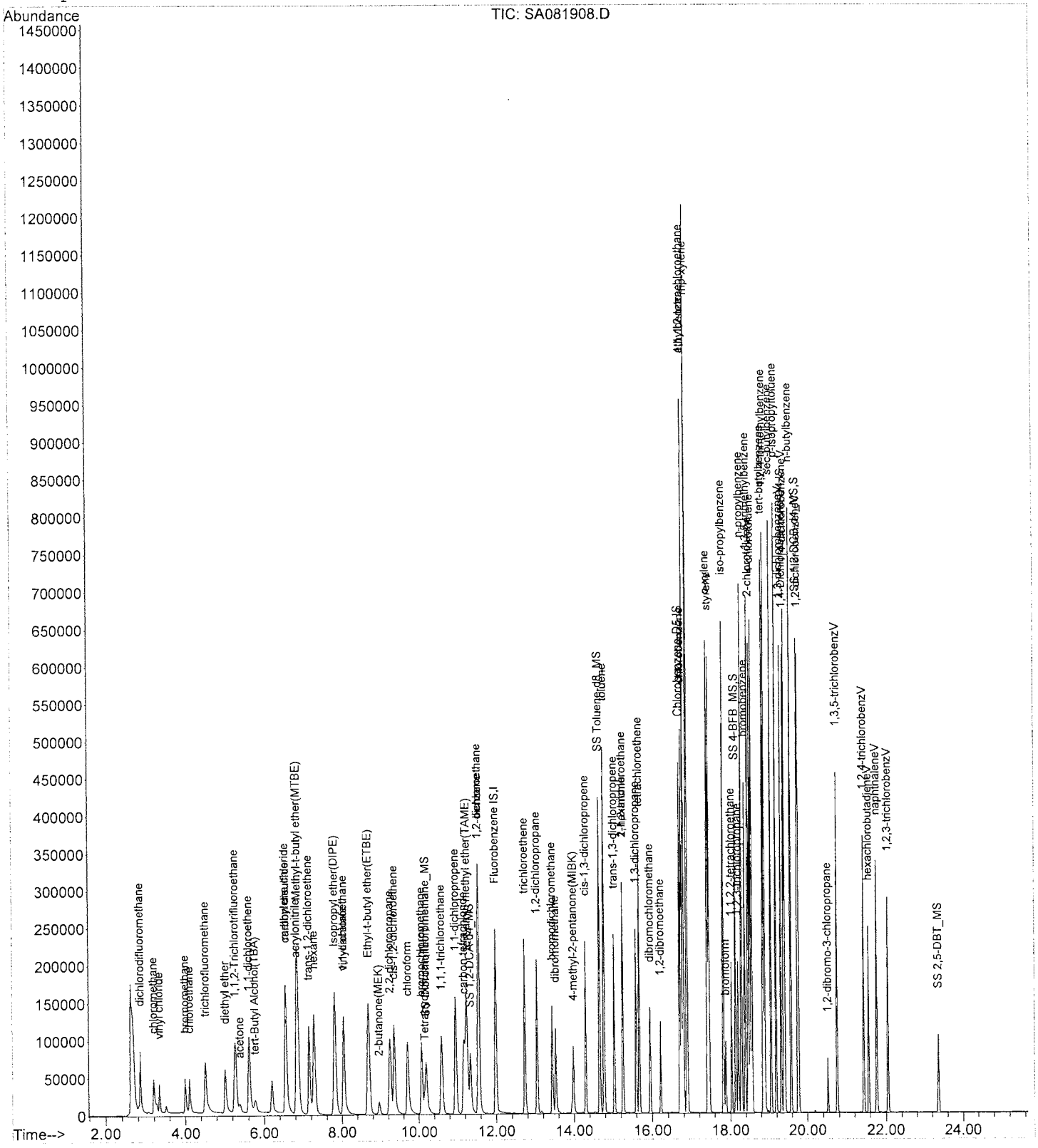
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	410451	10.129 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	120388	13.264 ug/L #	88
47) 1,1,2-trichloroethane	15.25	83	63183	9.679 ug/L	94
48) 2-hexanone	15.25	43	49786	16.615 ug/L	95
49) tetrachloroethene	15.67	166	106655	9.352 ug/L #	93
50) 1,3-dichloropropane	15.60	76	135583	10.594 ug/L #	83
51) dibromochloromethane	15.95	129	74599	10.435 ug/L #	100
52) 1,2-dibromoethane	16.22	107	78816	10.218 ug/L #	99
53) chlorobenzene	16.74	112	277043	9.390 ug/L #	91
54) 1,1,1,2-tetrachloroethane	16.79	131	86783	9.882 ug/L	99
55) ethylbenzene	16.79	91	472657	10.697 ug/L	98
56) mp-xylene	16.89	106	380544	20.877 ug/L #	94
57) o-xylene	17.41	106	183867	11.709 ug/L #	94
58) styrene	17.46	104	305435	11.358 ug/L #	96
59) bromoform	17.89	173	40886	8.879 ug/L #	92
60) iso-propylbenzene	17.83	105	440848	11.834 ug/L #	97
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	139765	9.779 ug/L	97
63) bromobenzene	18.38	156	118350	9.499 ug/L #	89
64) 1,1,2,2-tetrachloroethane	18.04	83	92315	9.820 ug/L	99
65) 1,2,3-trichloropropane	18.21	110	29775	9.728 ug/L	95
66) n-propylbenzene	18.28	91	559856	11.100 ug/L	97
67) 2-chlorotoluene	18.51	91	340754	10.583 ug/L	96
68) 4-chlorotoluene	18.56	91	348025	10.725 ug/L	96
69) 1,3,5-trimethylbenzene	18.46	105	398336	11.545 ug/L	98
70) tert-butylbenzene	18.84	119	350839	11.560 ug/L	95
71) 1,2,4-trimethylbenzene	18.89	105	411467	11.312 ug/L	97
72) sec-butylbenzene	19.06	105	495753	11.302 ug/L	97
73) 1,3-dichlorobenzeneV	19.32	146	229470	9.646 ug/L	96
74) p-isopropyltoluene	19.19	119	426581	11.589 ug/L	97
75) 1,4-dichlorobenzeneV	19.42	146	228268m	9.180 ug/L	
76) 1,2-dichlorobenzeneV	19.78	146	212093	9.182 ug/L #	92
77) n-butylbenzene	19.58	91	360458	11.496 ug/L	98
79) 1,2-dibromo-3-chloropropan	20.52	157	15958	10.609 ug/L #	91
80) 1,3,5-trichlorobenzV	20.75	180	129782	9.356 ug/L #	91
81) 1,2,4-trichlorobenzV	21.44	180	109868	10.241 ug/L #	91
82) hexachlorobutadieneV	21.56	225	46830	7.773 ug/L #	92
83) naphthaleneV	21.76	128	281673	10.445 ug/L	99
84) 1,2,3-trichlorobenzV	22.05	180	92922	9.657 ug/L #	90
85) SS 2,5-DBT_MS	23.36	250	25727	9.608 ug/L #	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:11 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:11:29 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331394	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	131321	10.95	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.55%			
78) SS 1,2-DCB-d4_MS	19.75	152	141700	9.86	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.64%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	194683	26.967	ug/L	100
3) chloromethane	3.19	50	172058	24.200	ug/L	100
4) vinyl chloride	3.34	62	80711	21.374	ug/L	99
5) bromomethane	3.99	94	93850	22.486	ug/L	99
6) chloroethane	4.11	64	109554	22.182	ug/L	95
7) trichlorofluoromethane	4.52	101	237179	21.459	ug/L	99
8) diethyl ether	5.02	59	124100	24.362	ug/L	96
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162873	20.331	ug/L	96
10) acetone	5.39	43	38187	26.844	ug/L	99
11) 1,1-dichloroethene	5.61	96	161233	22.926	ug/L	91
12) tert-Butyl Alcohol(TBA)	5.78	59	68924	157.041	ug/L #	83
13) methylene chloride	6.55	84	176392	19.727	ug/L	90
14) carbon disulfide	6.57	76	481336	26.893	ug/L	99
15) acrylonitrile	6.81	53	68378	21.520	ug/L	97
16) Methyl-t-butyl ether(MTBE)	6.85	73	881412	52.186	ug/L #	95
17) trans-1,2-dichloroethene	7.15	96	180020	21.222	ug/L	92
18) hexane	7.28	57	259325	25.393	ug/L	94
19) Isopropyl ether(DIPE)	7.81	45	625967	30.241	ug/L	95
20) vinyl acetate	8.05	43	313110	32.908	ug/L	95
21) 1,1-dichloroethane	8.05	63	333509	22.446	ug/L	99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	547829	32.172	ug/L #	94
23) 2,2-dichloropropane	9.25	77	260109	29.291	ug/L	99
24) cis-1,2-dichloroethene	9.36	61	262646	24.334	ug/L	92
25) 2-butanone(MEK)	8.96	43	66318	27.136	ug/L	92
26) bromochloromethane	10.08	128	93545	19.017	ug/L #	87
27) Tetrahydrofuran(THF)	10.16	42	46286	29.358	ug/L	90
28) chloroform	9.71	83	317565	22.449	ug/L #	96
29) SS Dibromofluoromethane_MS	10.20	111	79273	9.820	ug/L #	94
30) 1,1,1-trichloroethane	10.60	97	268761	23.484	ug/L	98
31) carbon tetrachloride	11.17	117	231829	22.667	ug/L #	98
32) 1,1-dichloropropene	10.96	75	264778	25.740	ug/L #	88
33) SS 1,2-DCA-d4_MS	11.34	65	93143	11.102	ug/L	95
34) tert-amyl methyl ether(TAM	11.24	73	476650	33.906	ug/L #	85
35) benzene	11.55	78	762700	20.906	ug/L	96
36) 1,2-dichloroethane	11.53	62	259670	23.444	ug/L	99
37) trichloroethene	12.73	95	194776	21.321	ug/L #	93
38) 1,2-dichloropropane	13.05	63	190971	22.368	ug/L	96
39) dibromomethane	13.53	93	106873	19.846	ug/L #	94
40) bromodichloromethane	13.44	83	226478	23.005	ug/L	99
41) 4-methyl-2-pentanone(MIBK)	13.99	58	54532	27.621	ug/L	83
42) cis-1,3-dichloropropene	14.30	75	277015	27.746	ug/L #	88
43) Chlorobenzene-D5 IS	16.69	117	262215	10.117	ug/L #	92
44) SS Toluene-d8_MS	14.66	98	333434	10.288	ug/L #	96

(#) = qualifier out of range (m) = manual integration
SA081909.D 5LID0819.M Tue Aug 27 09:41:18 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:11:29 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

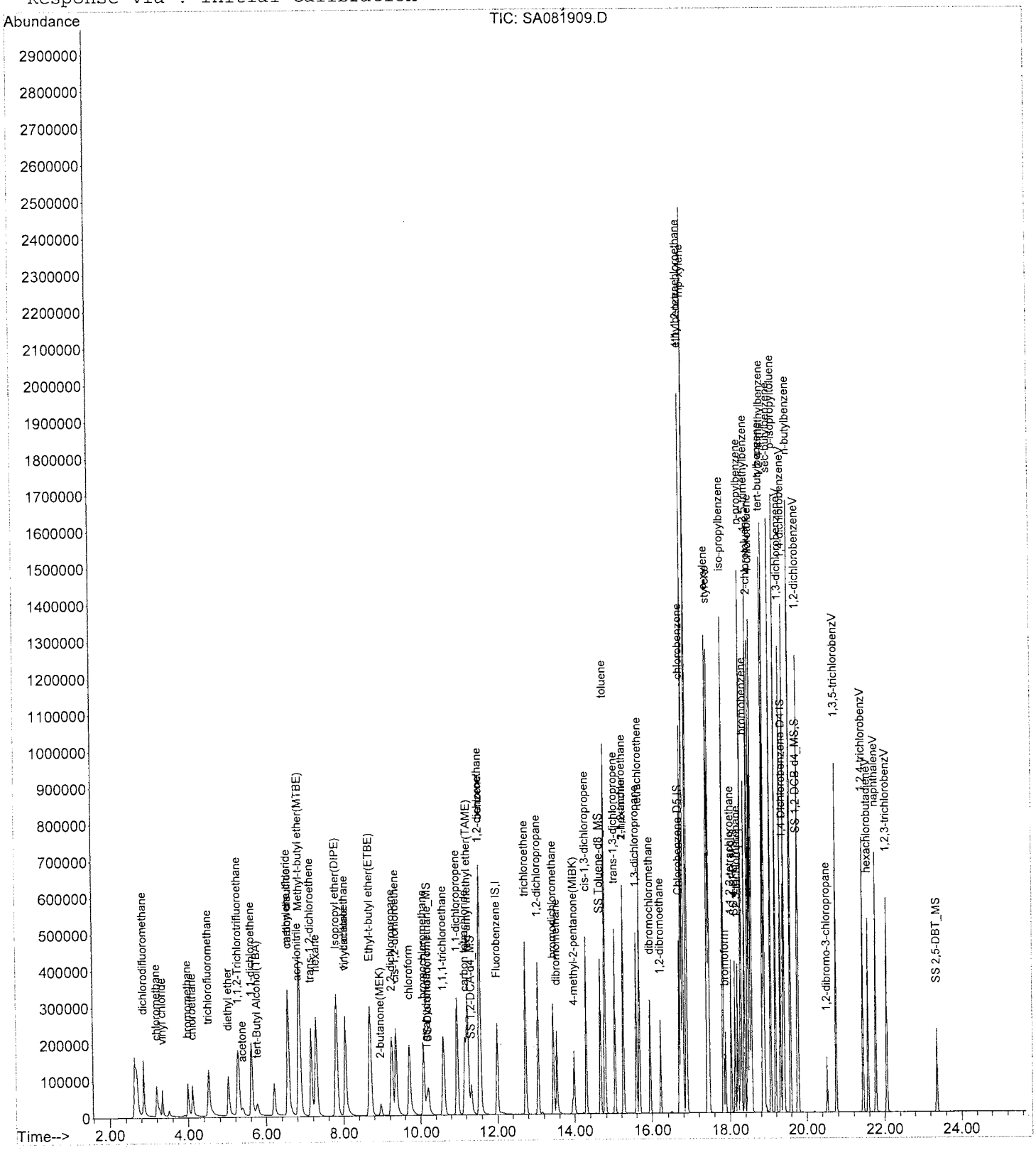
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	844209	20.725 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	261053	28.613 ug/L #	90
47) 1,1,2-trichloroethane	15.25	83	128699	19.613 ug/L	95
48) 2-hexanone	15.25	43	95466	31.695 ug/L	95
49) tetrachloroethene	15.67	166	219087	19.110 ug/L #	93
50) 1,3-dichloropropane	15.60	76	275697	21.431 ug/L #	85
51) dibromochloromethane	15.95	129	166130	23.118 ug/L #	100
52) 1,2-dibromoethane	16.22	107	163336	21.065 ug/L #	100
53) chlorobenzene	16.74	112	574991	19.388 ug/L #	93
54) 1,1,1,2-tetrachloroethane	16.79	131	183999	20.845 ug/L	100
55) ethylbenzene	16.79	91	975608	21.965 ug/L	98
56) mp-xylene	16.89	106	783338	42.752 ug/L #	94
57) o-xylene	17.41	106	380027	24.075 ug/L #	94
58) styrene	17.46	104	640234	23.685 ug/L	97
59) bromoform	17.89	173	95889	19.630 ug/L #	93
60) iso-propylbenzene	17.83	105	917040	24.490 ug/L #	98
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	141362	9.840 ug/L	94
63) bromobenzene	18.38	156	243213	19.420 ug/L #	89
64) 1,1,2,2-tetrachloroethane	18.04	83	195871	20.728 ug/L	99
65) 1,2,3-trichloropropane	18.21	110	60559	19.684 ug/L	95
66) n-propylbenzene	18.28	91	1162564	22.931 ug/L	98
67) 2-chlorotoluene	18.51	91	701288	21.668 ug/L	96
68) 4-chlorotoluene	18.56	91	714685	21.909 ug/L	97
69) 1,3,5-trimethylbenzene	18.46	105	818531	23.600 ug/L	98
70) tert-butylbenzene	18.84	119	723532	23.717 ug/L	95
71) 1,2,4-trimethylbenzene	18.89	105	842876	23.052 ug/L	98
72) sec-butylbenzene	19.06	105	1021831	23.175 ug/L	98
73) 1,3-dichlorobenzeneV	19.32	146	475266	19.876 ug/L	96
74) p-isopropyltoluene	19.19	119	887637	23.989 ug/L	97
75) 1,4-dichlorobenzeneV	19.42	146	472383m	18.899 ug/L	
76) 1,2-dichlorobenzeneV	19.78	146	439455	18.926 ug/L #	97
77) n-butylbenzene	19.58	91	755022	23.955 ug/L	98
79) 1,2-dibromo-3-chloropropan	20.52	157	35245	23.310 ug/L #	92
80) 1,3,5-trichlorobenzV	20.75	180	273191	19.592 ug/L #	92
81) 1,2,4-trichlorobenzV	21.44	180	228467	21.185 ug/L #	91
82) hexachlorobutadieneV	21.56	225	99180	16.377 ug/L #	92
83) naphthaleneV	21.76	128	592008	21.314 ug/L #	99
84) 1,2,3-trichlorobenzV	22.05	180	196079	20.272 ug/L #	92
85) SS 2,5-DBT_MS	23.36	250	57521	20.444 ug/L #	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:12 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:12:14 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335931	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	132879	10.94	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.35%			
78) SS 1,2-DCB-d4_MS	19.75	152	145066	9.96	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.62%			
Target Compounds						Qvalue
11) 1,1-dichloroethene	5.61	96	404751	56.776	ug/L	92
12) tert-Butyl Alcohol(TBA)	5.77	59	179792	404.117	ug/L #	84
13) methylene chloride	6.55	84	437336	48.249	ug/L	90
14) carbon disulfide	6.57	76	1230954	68.646	ug/L	99
17) trans-1,2-dichloroethene	7.15	96	461386	53.657	ug/L	92
19) Isopropyl ether(DIPE)	7.81	45	1609210	76.692	ug/L	95
21) 1,1-dichloroethane	8.04	63	845028	56.105	ug/L	99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	1416425	82.058	ug/L #	93
23) 2,2-dichloropropane	9.25	77	662748	73.625	ug/L	98
24) cis-1,2-dichloroethene	9.36	61	668233	61.074	ug/L	93
26) bromochloromethane	10.08	128	245669	49.268	ug/L	88
28) chloroform	9.71	83	811140	57.021	ug/L #	97
29) SS Dibromofluoromethane_MS	10.20	111	80333	9.817	ug/L #	93
30) 1,1,1-trichloroethane	10.59	97	694283	59.847	ug/L	99
31) carbon tetrachloride	11.17	117	616174	59.434	ug/L #	98
32) 1,1-dichloropropene	10.96	75	674265	64.662	ug/L #	89
33) SS 1,2-DCA-d4_MS	11.33	65	92083	10.827	ug/L	96
34) tert-amyl methyl ether(TAM	11.23	73	1249604	87.688	ug/L #	85
35) benzene	11.55	78	1949369	52.712	ug/L	97
36) 1,2-dichloroethane	11.54	62	654734	58.313	ug/L	99
37) trichloroethene	12.73	95	503338	54.353	ug/L	93
38) 1,2-dichloropropane	13.05	63	492015	56.851	ug/L	97
39) dibromomethane	13.53	93	281102	51.496	ug/L #	95
40) bromodichloromethane	13.44	83	610134	61.140	ug/L	98
42) cis-1,3-dichloropropene	14.30	75	735714	72.694	ug/L #	89
43) Chlorobenzene-D5 IS	16.69	117	266092	10.128	ug/L #	92
44) SS Toluene-d8_MS	14.65	98	334568	10.184	ug/L #	96
45) toluene	14.77	91	2153729	52.160	ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	705358	76.267	ug/L #	91
47) 1,1,2-trichloroethane	15.25	83	334663	50.312	ug/L	95
49) tetrachloroethene	15.67	166	568485	48.918	ug/L #	95
50) 1,3-dichloropropane	15.60	76	712001	54.600	ug/L #	86
51) dibromochloromethane	15.95	129	463357	63.609	ug/L #	99
52) 1,2-dibromoethane	16.22	107	430648	54.789	ug/L #	99
53) chlorobenzene	16.74	112	1464220	48.704	ug/L #	93
54) 1,1,1,2-tetrachloroethane	16.79	131	484658	54.164	ug/L	100
55) ethylbenzene	16.79	91	2458719	54.609	ug/L	98
56) mp-xylene	16.89	106	1969523	106.039	ug/L #	95
57) o-xylene	17.41	106	976890	61.051	ug/L	95
58) styrene	17.46	104	1639183	59.822	ug/L	97
59) bromoform	17.89	173	284834	51.005	ug/L #	94
60) iso-propylbenzene	17.83	105	2327255	61.310	ug/L	98
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	145060	9.961	ug/L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:12:14 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

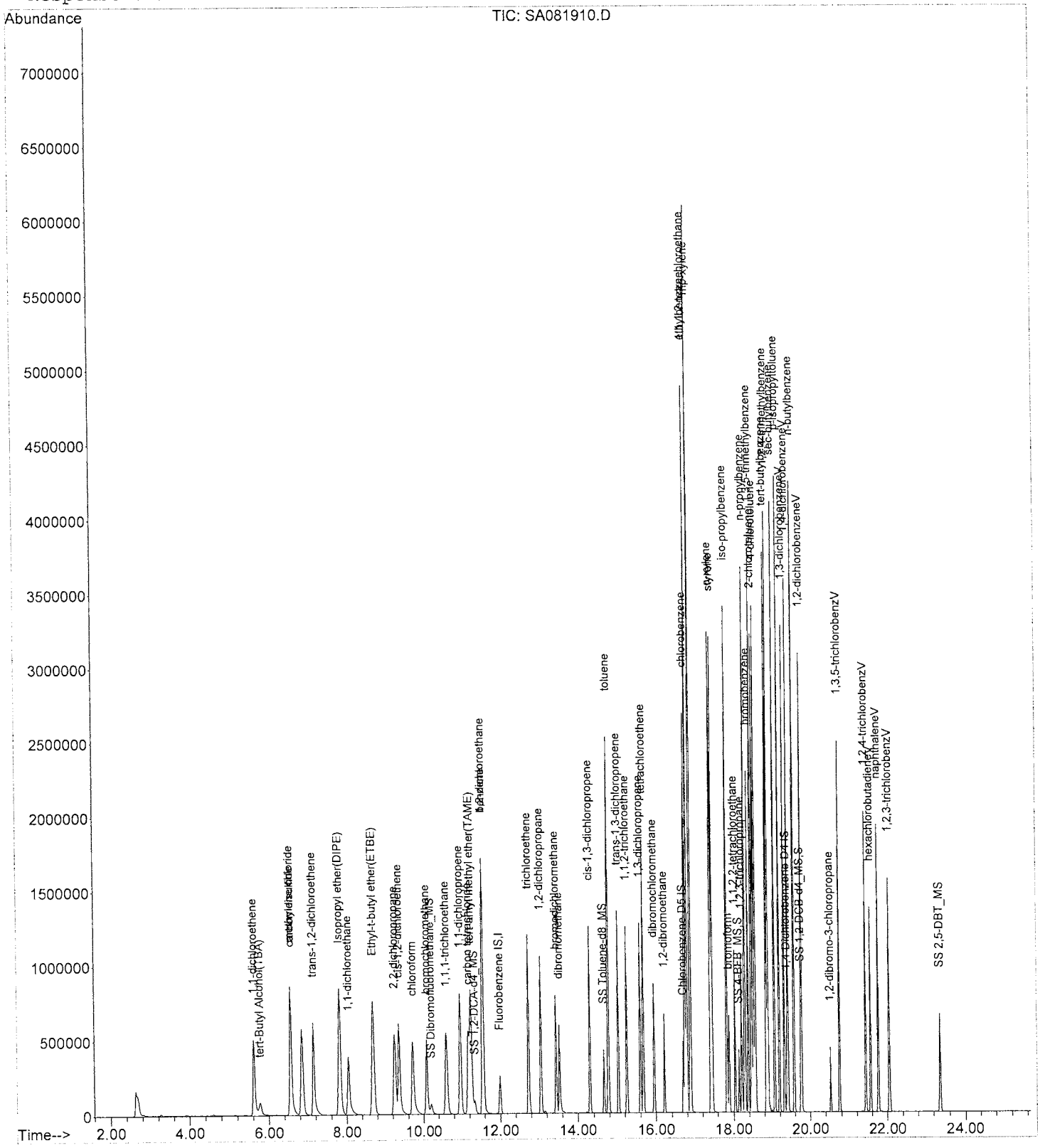
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
63) bromobenzene	18.38	156	631462	49.740	ug/L	#	91
64) 1,1,2,2-tetrachloroethane	18.04	83	515825	53.849	ug/L		99
65) 1,2,3-trichloropropane	18.21	110	160290	51.398	ug/L		96
66) n-propylbenzene	18.29	91	2946454	57.331	ug/L		98
67) 2-chlorotoluene	18.51	91	1770408	53.963	ug/L		97
68) 4-chlorotoluene	18.56	91	1815730	54.911	ug/L		97
69) 1,3,5-trimethylbenzene	18.46	105	2098777	59.696	ug/L		98
70) tert-butylbenzene	18.84	119	1841012	59.532	ug/L		96
71) 1,2,4-trimethylbenzene	18.89	105	2149505	57.993	ug/L		98
72) sec-butylbenzene	19.06	105	2621616	58.655	ug/L		98
73) 1,3-dichlorobenzeneV	19.32	146	1227456	50.639	ug/L		96
74) p-isopropyltoluene	19.19	119	2264722	60.379	ug/L		98
75) 1,4-dichlorobenzeneV	19.42	146	1224601	48.331	ug/L		98
76) 1,2-dichlorobenzeneV	19.78	146	1142498	48.539	ug/L		98
77) n-butylbenzene	19.58	91	1932849	60.497	ug/L		98
79) 1,2-dibromo-3-chloropropan	20.52	157	103649	67.624	ug/L		92
80) 1,3,5-trichlorobenzV	20.75	180	723845	51.211	ug/L	#	92
81) 1,2,4-trichlorobenzV	21.44	180	618016	56.533	ug/L	#	92
82) hexachlorobutadieneV	21.56	225	264933	43.156	ug/L	#	93
83) naphthaleneV	21.76	128	1614517	56.528	ug/L		99
84) 1,2,3-trichlorobenzV	22.05	180	527857	53.836	ug/L	#	92
85) SS 2,5-DBT_MS	23.36	250	168625	57.692	ug/L	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:14 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:14:36 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

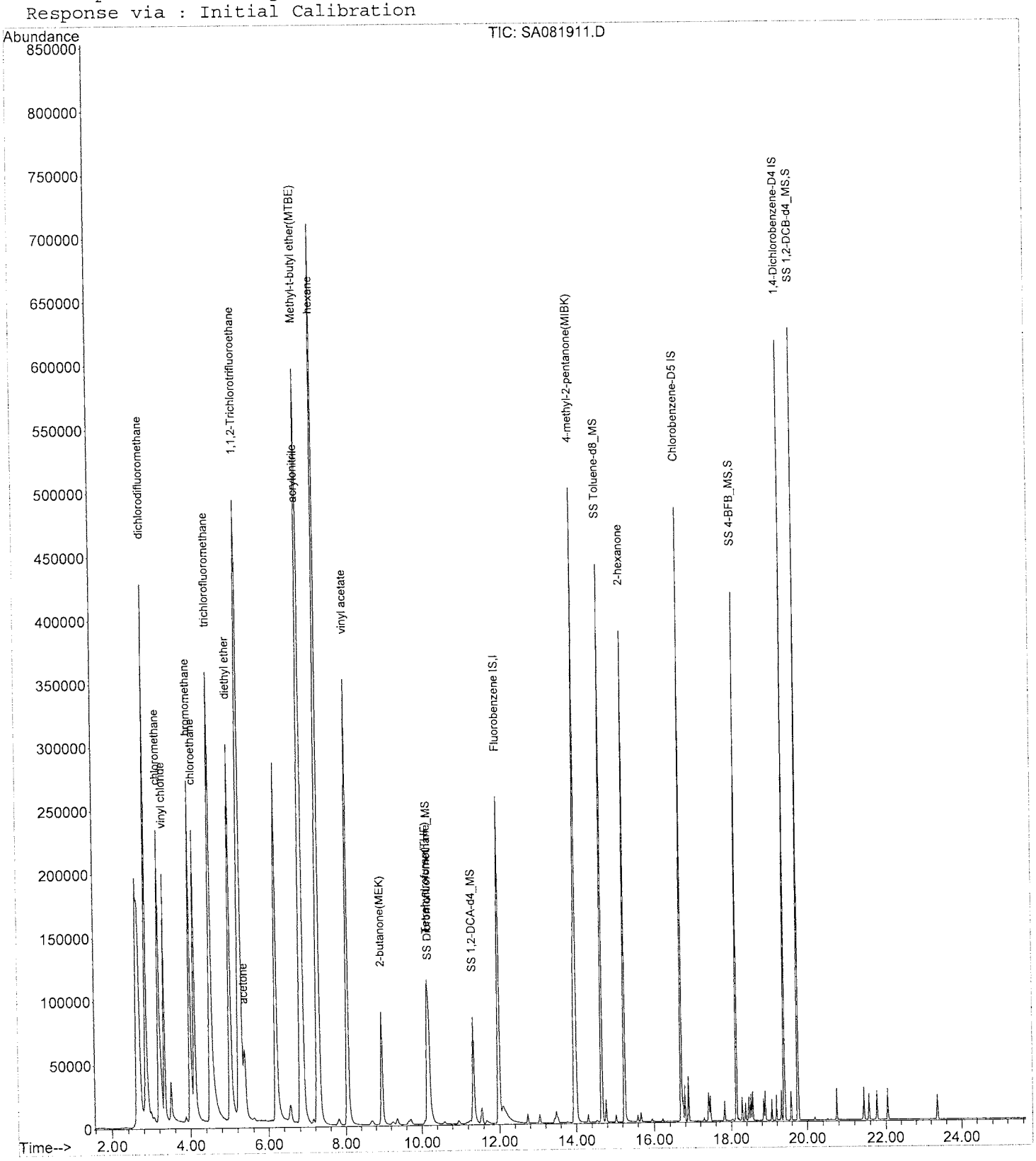
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	339880	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	130822	10.64	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.41%				
78) SS 1,2-DCB-d4_MS	19.75	152	137890	9.36	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.59%				
Target Compounds							Qvalue
2) dichlorodifluoromethane	2.85	85	536684	72.484	ug/L		98
3) chloromethane	3.19	50	467373	64.094	ug/L		100
4) vinyl chloride	3.34	62	223715	57.765	ug/L		99
5) bromomethane	3.99	94	285806	66.767	ug/L	#	96
6) chloroethane	4.11	64	305439	60.299	ug/L		96
7) trichlorofluoromethane	4.52	101	654819	57.767	ug/L		100
8) diethyl ether	5.02	59	339800	65.042	ug/L		96
9) 1,1,2-Trichlorotrifluoroet	5.27	101	444864	54.144	ug/L		96
10) acetone	5.39	43	102610	71.394	ug/L		99
15) acrylonitrile	6.82	53	180460m	55.376	ug/L		
16) Methyl-t-butyl ether(MTBE)	6.85	73	1170515	67.572	ug/L		95
18) hexane	7.28	57	714260	68.193	ug/L		95
20) vinyl acetate	8.05	43	882898	90.476	ug/L		95
25) 2-butanone(MEK)	8.96	43	186374	74.357	ug/L		93
27) Tetrahydrofuran(THF)	10.15	42	126802	78.420	ug/L		93
29) SS Dibromofluoromethane_MS	10.20	111	80106	9.676	ug/L	#	95
33) SS 1,2-DCA-d4_MS	11.33	65	98674	11.468	ug/L	#	95
41) 4-methyl-2-pentanone(MIBK)	13.98	58	156553	77.316	ug/L		82
43) Chlorobenzene-D5 IS	16.69	117	264197	9.939	ug/L	#	91
44) SS Toluene-d8_MS	14.65	98	339243	10.206	ug/L	#	96
48) 2-hexanone	15.25	43	264972	85.774	ug/L		95
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	137469	9.330	ug/L	#	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:34 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:15:45 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	353825	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	141281	11.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.39%			
78) SS 1,2-DCB-d4_MS	19.75	152	154664	10.08	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.84%			
Target Compounds						Qvalue
11) 1,1-dichloroethene	5.61	96	799527	106.481	ug/L	92
12) tert-Butyl Alcohol(TBA)	5.78	59	356423	760.613	ug/L #	83
13) methylene chloride	6.55	84	850455	89.081	ug/L	91
14) carbon disulfide	6.57	76	2483653	131.980	ug/L	99
17) trans-1,2-dichloroethene	7.15	96	920590	101.645	ug/L	92
19) Isopropyl ether(DIPE)	7.81	45	3172091	143.531	ug/L	95
21) 1,1-dichloroethane	8.04	63	1684741	106.201	ug/L	99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	2805405	154.307	ug/L #	94
23) 2,2-dichloropropane	9.24	77	1282370	135.254	ug/L	97
24) cis-1,2-dichloroethene	9.36	61	1320501	114.586	ug/L	93
26) bromochloromethane	10.08	128	491792	93.638	ug/L	89
28) chloroform	9.71	83	1614649	108.032	ug/L	97
29) SS Dibromofluoromethane_MS	10.20	111	85350	9.903	ug/L #	91
30) 1,1,1-trichloroethane	10.59	97	1388303	113.619	ug/L	99
31) carbon tetrachloride	11.17	117	1249650	114.440	ug/L #	98
32) 1,1-dichloropropene	10.96	75	1344519	122.419	ug/L #	90
33) SS 1,2-DCA-d4_MS	11.34	65	94152	10.511	ug/L	97
34) tert-amyl methyl ether(TAM	11.24	73	2507528	167.060	ug/L #	84
35) benzene	11.56	78	3851284	98.874	ug/L	97
36) 1,2-dichloroethane	11.54	62	1269493	107.348	ug/L	98
37) trichloroethene	12.73	95	1012659	103.823	ug/L	94
38) 1,2-dichloropropane	13.05	63	981918	107.721	ug/L	97
39) dibromomethane	13.53	93	565072	98.282	ug/L	95
40) bromodichloromethane	13.44	83	1230530	117.071	ug/L	98
42) cis-1,3-dichloropropene	14.30	75	1482469	139.071	ug/L #	91
43) Chlorobenzene-D5 IS	16.69	117	282298	10.201	ug/L #	92
44) SS Toluene-d8_MS	14.66	98	358167	10.351	ug/L #	96
45) toluene	14.77	91	4211772	96.844	ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	1416003	145.364	ug/L	92
47) 1,1,2-trichloroethane	15.25	83	670993	95.773	ug/L	96
49) tetrachloroethene	15.67	166	1142360	93.328	ug/L #	96
50) 1,3-dichloropropane	15.60	76	1412274	102.823	ug/L	87
51) dibromochloromethane	15.95	129	962973	125.511	ug/L #	99
52) 1,2-dibromoethane	16.22	107	868314	104.885	ug/L	99
53) chlorobenzene	16.74	112	2877344	90.869	ug/L #	94
54) 1,1,1,2-tetrachloroethane	16.79	131	950257	100.827	ug/L	99
55) ethylbenzene	16.79	91	4650465	98.065	ug/L	99
56) mp-xylene	16.89	106	3612368	184.653	ug/L	96
57) o-xylene	17.42	106	1899543	112.709	ug/L #	96
58) styrene	17.46	104	3197383	110.787	ug/L	97
59) bromoform	17.89	173	605915	90.517	ug/L #	94
60) iso-propylbenzene	17.83	105	4489644	112.295	ug/L	98
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	152949	9.972	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:15:45 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

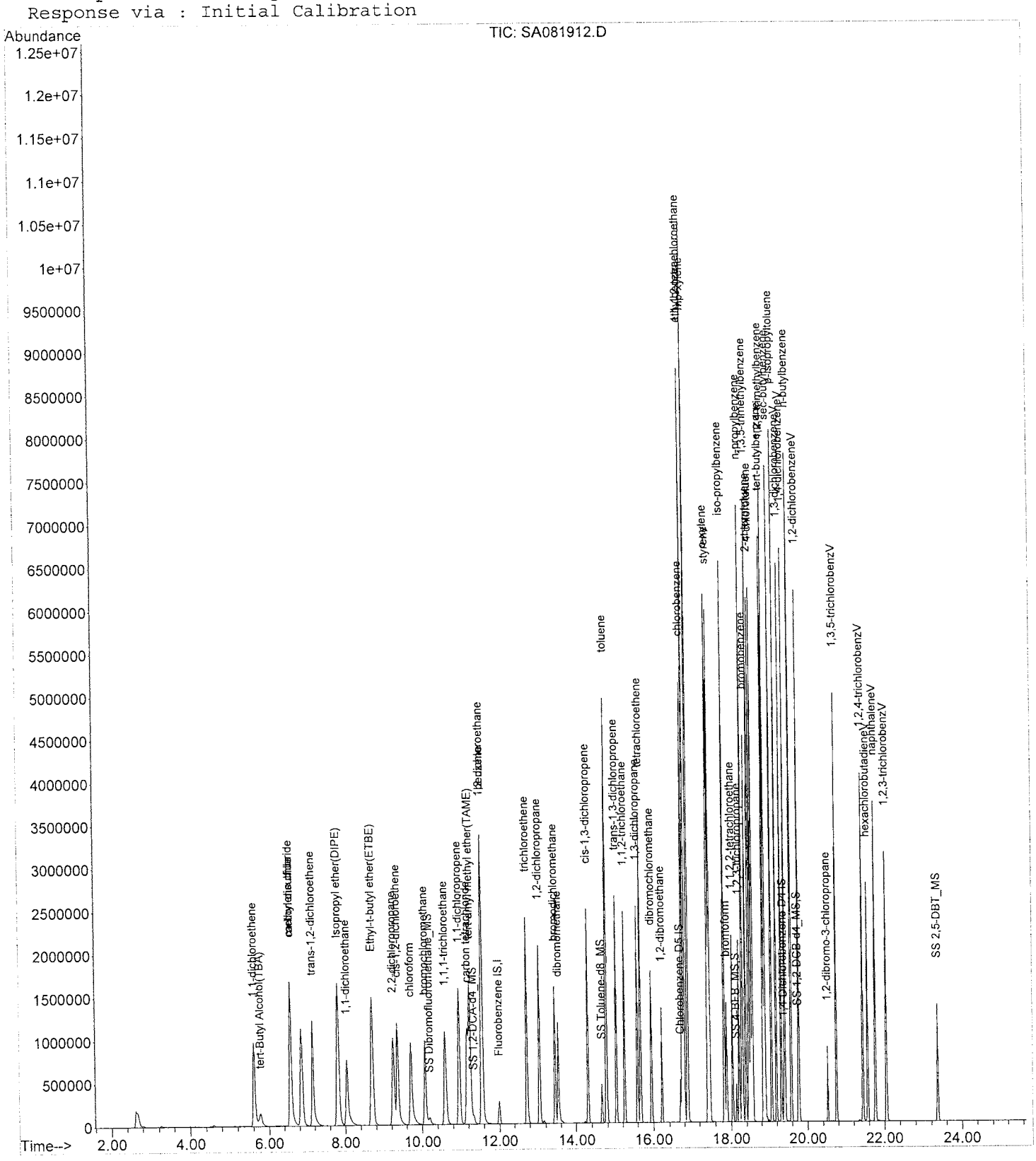
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
63) bromobenzene	18.38	156	1256098	93.938 ug/L #	92
64) 1,1,2,2-tetrachloroethane	18.04	83	1018500	100.948 ug/L	99
65) 1,2,3-trichloropropane	18.21	110	317030	96.516 ug/L	95
66) n-propylbenzene	18.29	91	5661535	104.590 ug/L	99
67) 2-chlorotoluene	18.52	91	3510006	101.575 ug/L	98
68) 4-chlorotoluene	18.56	91	3399957	97.622 ug/L	98
69) 1,3,5-trimethylbenzene	18.46	105	4047113	109.291 ug/L	99
70) tert-butylbenzene	18.85	119	3540878	108.709 ug/L	96
71) 1,2,4-trimethylbenzene	18.89	105	4082099	104.564 ug/L	99
72) sec-butylbenzene	19.06	105	4997923	106.166 ug/L	99
73) 1,3-dichlorobenzeneV	19.32	146	2402007	94.084 ug/L	96
74) p-isopropyltoluene	19.19	119	4286623	108.504 ug/L	98
75) 1,4-dichlorobenzeneV	19.42	146	2393028	89.669 ug/L	97
76) 1,2-dichlorobenzeneV	19.78	146	2232663	90.058 ug/L	98
77) n-butylbenzene	19.58	91	3684328	109.485 ug/L	99
79) 1,2-dibromo-3-chloropropan	20.52	157	217589	134.783 ug/L	94
80) 1,3,5-trichlorobenzV	20.75	180	1460642	98.112 ug/L	93
81) 1,2,4-trichlorobenzV	21.44	180	1245911	108.206 ug/L #	92
82) hexachlorobutadieneV	21.56	225	539972	83.509 ug/L	94
83) naphthaleneV	21.76	128	3216106	106.479 ug/L	99
84) 1,2,3-trichlorobenzV	22.05	180	1068249	103.441 ug/L #	93
85) SS 2,5-DBT_MS	23.36	250	352397	113.724 ug/L #	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:16 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:16:59 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

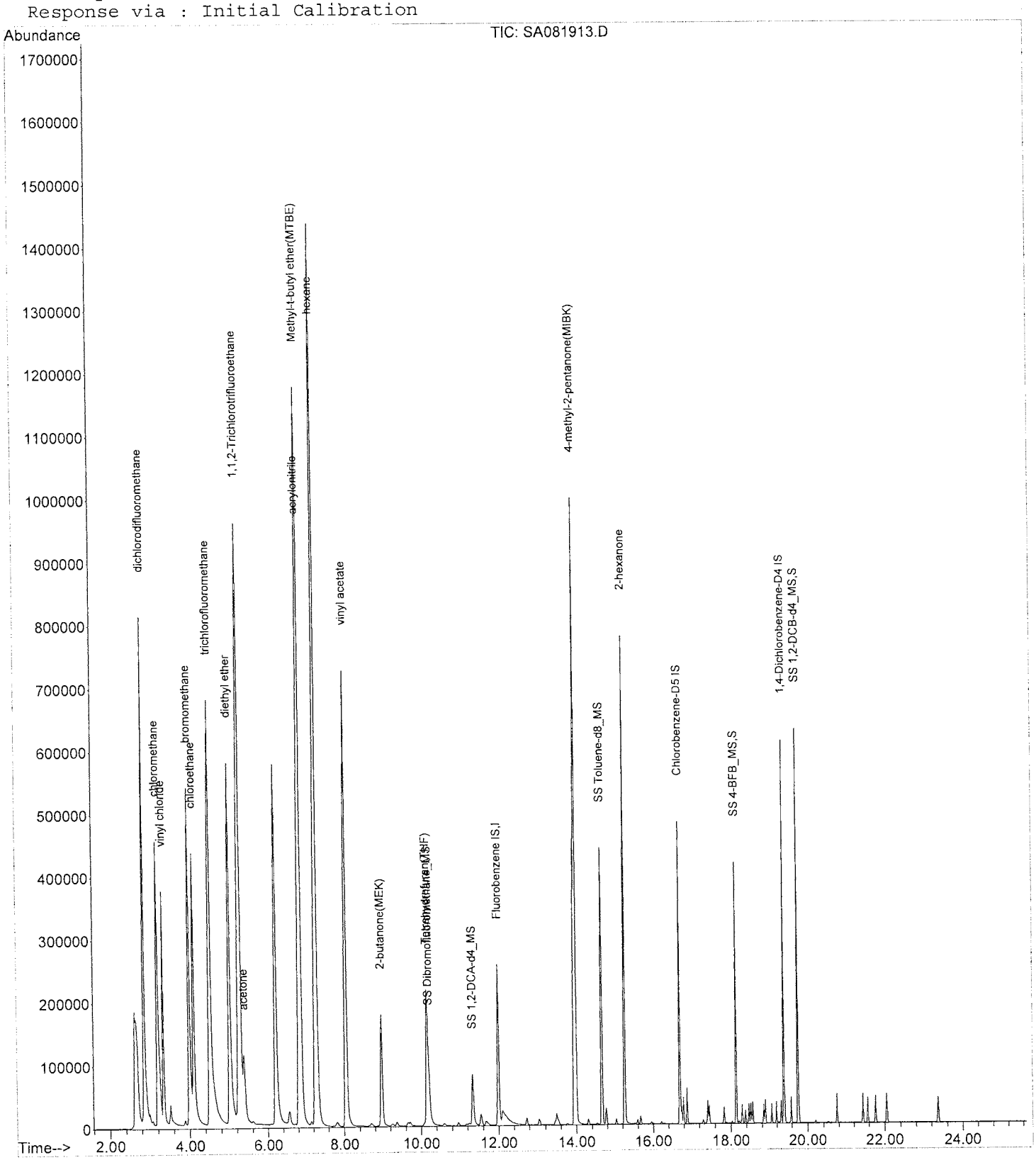
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	340007	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	130668	10.62	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.24%			
78) SS 1,2-DCB-d4_MS	19.75	152	139162	9.44	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.42%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	1095393	147.887	ug/L	99
3) chloromethane	3.19	50	916541	125.645	ug/L	100
4) vinyl chloride	3.33	62	418278	107.962	ug/L	100
5) bromomethane	3.99	94	609663	142.369	ug/L	97
6) chloroethane	4.11	64	592656	116.958	ug/L	96
7) trichlorofluoromethane	4.52	101	1288850	113.658	ug/L	99
8) diethyl ether	5.02	59	671885	128.559	ug/L	96
9) 1,1,2-Trichlorotrifluoroet	5.27	101	878931	106.934	ug/L	96
10) acetone	5.39	43	202643	141.582	ug/L	98
15) acrylonitrile	6.82	53	358412	109.941	ug/L	93
16) Methyl-t-butyl ether(MTBE)	6.85	73	2326517	134.257	ug/L	94
18) hexane	7.27	57	1450032	138.388	ug/L	95
20) vinyl acetate	8.05	43	1807134	185.120	ug/L	95
25) 2-butanone(MEK)	8.96	43	373366	148.905	ug/L	93
27) Tetrahydrofuran(THF)	10.15	42	254908	157.587	ug/L	93
29) SS Dibromofluoromethane_MS	10.20	111	80456	9.714	ug/L #	95
33) SS 1,2-DCA-d4_MS	11.33	65	98415	11.433	ug/L #	95
41) 4-methyl-2-pentanone(MIBK)	13.99	58	318455	157.216	ug/L #	77
43) Chlorobenzene-D5 IS	16.69	117	266108	10.007	ug/L #	92
44) SS Toluene-d8_MS	14.65	98	342489	10.300	ug/L #	96
48) 2-hexanone	15.25	43	535895	173.410	ug/L	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	139054	9.434	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 10:17 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1 I	Fluorobenzene IS	10.000	10.000	0.0	101	0.00	
2	dichlorodifluoromethane	20.000	10.649 ↓	46.8#	60	0.00	probable solution degradation; reanalyze
3	chloromethane	20.000	13.811 ↓	30.9#	80	0.00	
4	vinyl chloride	20.000	13.688 ↓	31.6#	85	0.00	
5	bromomethane	20.000	17.580	12.1	93	0.00	
6	chloroethane	20.000	16.822	15.9	94	0.00	
7	trichlorofluoromethane	20.000	16.554	17.2	91	0.00	
8	diethyl ether	20.000	20.516	-2.6	112	0.00	
9	1,1,2-Trichlorotrifluoroeth	20.000	18.647	6.8	102	0.00	
10	acetone	20.000	18.040	9.8	99	0.00	
11	1,1-dichloroethene	20.000	17.877	10.6	94	0.00	
12	tert-Butyl Alcohol(TBA)	100.000	91.111	8.9	95	-0.02	
13	methylene chloride	20.000	18.494	7.5	98	0.00	
14	carbon disulfide	20.000	17.642	11.8	94	0.00	
15	acrylonitrile	20.000	17.277	13.6	94	0.00	
16	Methyl-t-butyl ether(MTBE)	40.000	19.414 OK	51.5#	53	0.00	
17	trans-1,2-dichloroethene	20.000	19.519	2.4	97	0.00	
18	hexane	20.000	0.096	99.5#	1	0.00	
19	Isopropyl ether(DIPE)	20.000	19.633	1.8	99	-0.01	
20	vinyl acetate	20.000	10.928 ↓	45.4#	56	0.00	
21	1,1-dichloroethane	20.000	19.405	3.0	96	0.00	
22	Ethyl-t-butyl ether(ETBE)	20.000	20.065	-0.3	101	-0.01	
23	2,2-dichloropropane	20.000	20.671	-3.4	99	0.00	
24	cis-1,2-dichloroethene	20.000	21.000	-5.0	104	0.00	
25	2-butanone(MEK)	20.000	17.870	10.6	103	0.00	
26	bromochloromethane	20.000	19.673	1.6	99	0.00	
27	Tetrahydrofuran(THF)	20.000	17.699	11.5	104	0.00	
28	chloroform	20.000	19.082	4.6	97	0.00	
29	SS Dibromofluoromethane_MS	10.000	10.068	-0.7	101	0.00	
30	1,1,1-trichloroethane	20.000	19.855	0.7	98	0.00	
31	carbon tetrachloride	20.000	20.452	-2.3	97	0.00	
32	1,1-dichloropropene	20.000	18.471	7.6	92	0.00	
33	SS 1,2-DCA-d4_MS	10.000	9.694	3.1	100	0.00	
34	tert-amyl methyl ether(TAME	20.000	20.575	-2.9	103	-0.01	
35	benzene	20.000	19.731	1.3	99	-0.01	
36	1,2-dichloroethane	20.000	18.723	6.4	94	0.00	
37	trichloroethene	20.000	19.031	4.8	97	0.00	
38	1,2-dichloropropane	20.000	19.906	0.5	99	0.00	
39	dibromomethane	20.000	19.792	1.0	99	0.00	
40	bromodichloromethane	20.000	20.180	-0.9	96	0.00	
41	4-methyl-2-pentanone(MIBK)	20.000	19.832	0.8	105	0.00	
42	cis-1,3-dichloropropene	20.000	22.812	-14.1	108	0.00	
43	Chlorobenzene-D5 IS	10.000	10.245	-2.4	102	0.00	
44	SS Toluene-d8_MS	10.000	10.085	-0.9	101	0.00	
45	toluene	20.000	19.971	0.1	99	0.00	
46	trans-1,3-dichloropropene	20.000	21.750	-8.8	100	0.00	
47	1,1,2-trichloroethane	20.000	20.175	-0.9	101	0.00	
48	2-hexanone	20.000	19.909	0.5	107	0.00	
49	tetrachloroethene	20.000	20.650	-3.2	103	0.00	
50	1,3-dichloropropane	20.000	20.050	-0.3	100	0.00	
51	dibromochloromethane	20.000	22.461	-12.3	101	0.00	
52	1,2-dibromoethane	20.000	20.379	-1.9	99	0.00	
53	chlorobenzene	20.000	19.615	1.9	97	0.00	
54	1,1,1,2-tetrachloroethane	20.000	21.251	-6.3	99	0.00	
55	ethylbenzene	20.000	20.140	-0.7	99	0.00	
56	mp-xylene	40.000	39.420	1.4	99	0.00	
57	o-xylene	20.000	20.180	-0.9	99	0.00	

58	styrene	20.000	21.228	-6.1	101	0.00
59	bromoform	20.000	27.625	-38.1#	106	0.00
60	iso-propylbenzene	20.000	22.033	-10.2	107	0.00
61 S	SS 4-BFB_MS	10.000	10.256	-2.6	102	0.00
62	1,4-Dichlorobenzene-D4 IS	10.000	10.395	-3.9	102	0.00
63	bromobenzene	20.000	19.944	0.3	98	0.00
64	1,1,2,2-tetrachloroethane	20.000	20.456	-2.3	98	0.00
65	1,2,3-trichloropropane	20.000	19.422	2.9	97	0.00
66	n-propylbenzene	20.000	20.631	-3.2	100	0.00
67	2-chlorotoluene	20.000	19.557	2.2	97	0.00
68	4-chlorotoluene	20.000	20.114	-0.6	98	0.00
69	1,3,5-trimethylbenzene	20.000	20.415	-2.1	99	0.00
70	tert-butylbenzene	20.000	20.274	-1.4	98	0.00
71	1,2,4-trimethylbenzene	20.000	20.259	-1.3	98	0.00
72	sec-butylbenzene	20.000	20.383	-1.9	98	0.00
73	1,3-dichlorobenzeneV	20.000	20.093	-0.5	98	0.00
74	p-isopropyltoluene	20.000	21.016	-5.1	99	0.00
75	1,4-dichlorobenzeneV	20.000	19.998	0.0	98	-0.10
76	1,2-dichlorobenzeneV	20.000	19.789	1.1	97	0.00
77	n-butylbenzene	20.000	20.983	-4.9	98	0.00
78 S	SS 1,2-DCB-d4_MS	10.000	10.459	-4.6	103	0.00
79	1,2-dibromo-3-chloropropane	20.000	18.981	5.1	105	0.00
80	1,3,5-trichlorobenzV	20.000	21.330	-6.6	102	0.00
81	1,2,4-trichlorobenzV	20.000	20.624	-3.1	99	0.00
82	hexachlorobutadieneV	20.000	19.160	4.2	95	0.00
83	naphthaleneV	20.000	21.087	-5.4	98	0.00
84	1,2,3-trichlorobenzV	20.000	20.553	-2.8	99	0.00
85	SS 2,5-DBT_MS	20.000	1.096	94.5#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SA081909.D 5LID0819.M Wed Aug 21 09:05:53 2013

8/20/13

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 12:02:52 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 10:42:48 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

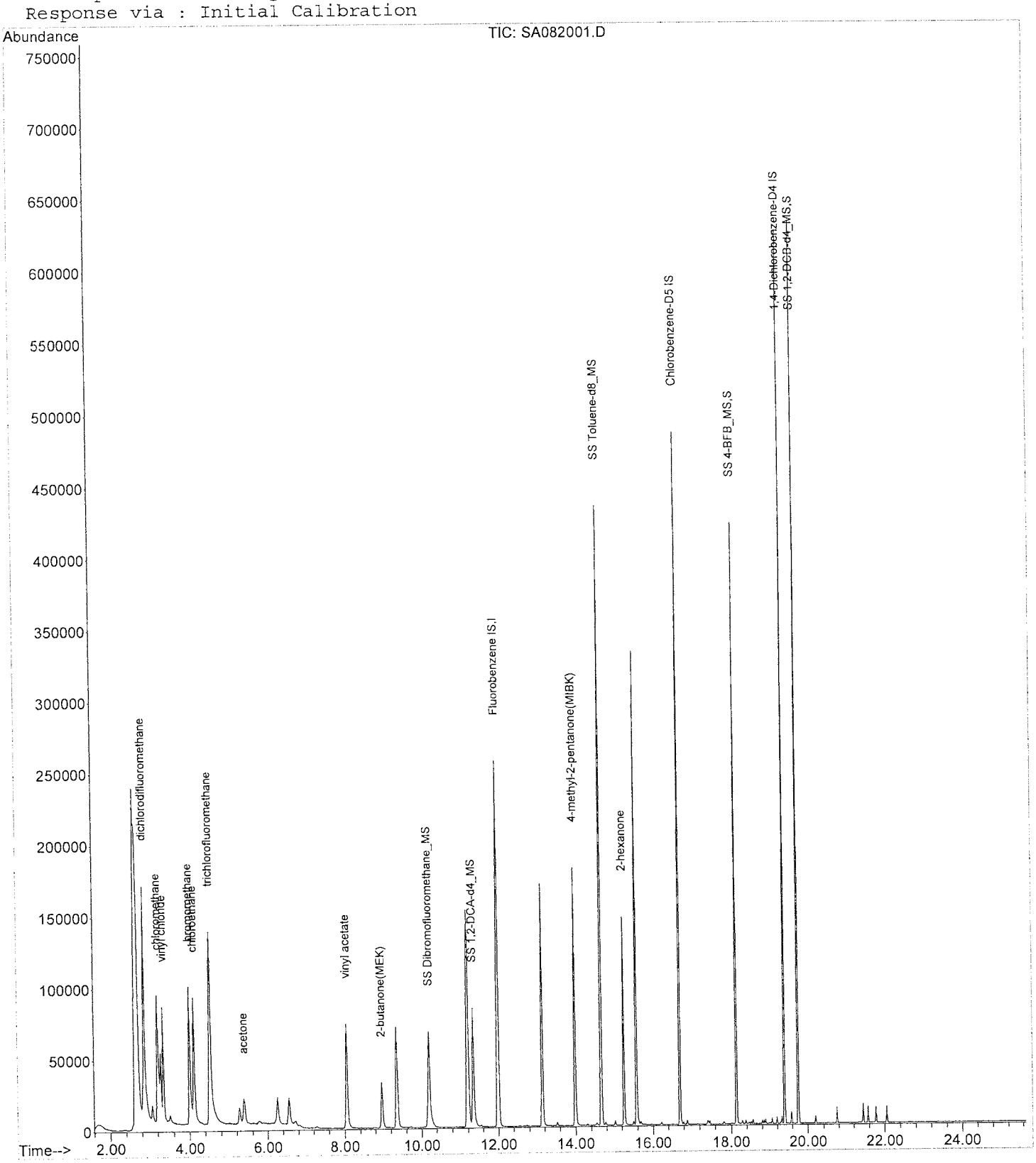
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000 ug/L	0.00
System Monitoring Compounds					
61) SS 4-BFB_MS	18.13	95	131805	9.91 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.10%		
78) SS 1,2-DCB-d4_MS	19.75	152	139280	9.81 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.07%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	213114	19.101 ug/L	100
3) chloromethane	3.20	50	198329	19.396 ug/L	100
4) vinyl chloride	3.34	62	96161	18.825 ug/L	100
5) bromomethane	3.99	94	101759	20.072 ug/L	97
6) chloroethane	4.11	64	118267	18.980 ug/L	97
7) trichlorofluoromethane	4.52	101	242259	18.266 ug/L	98
10) acetone	5.38	43	40059	18.639 ug/L	100
20) vinyl acetate	8.05	43	184735	11.189 ug/L	94
25) 2-butanone(MEK)	8.96	43	68939	17.682 ug/L	92
29) SS Dibromofluoromethane_MS	10.20	111	79209	9.778 ug/L	95
33) SS 1,2-DCA-d4_MS	11.33	65	96370	9.825 ug/L	96
41) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.604 ug/L	94
43) Chlorobenzene-D5 IS	16.69	117	268403	10.027 ug/L #	92
44) SS Toluene-d8_MS	14.65	98	341573	10.012 ug/L #	96
48) 2-hexanone	15.25	43	102376	19.581 ug/L	95
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	9.877 ug/L #	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 12:04 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



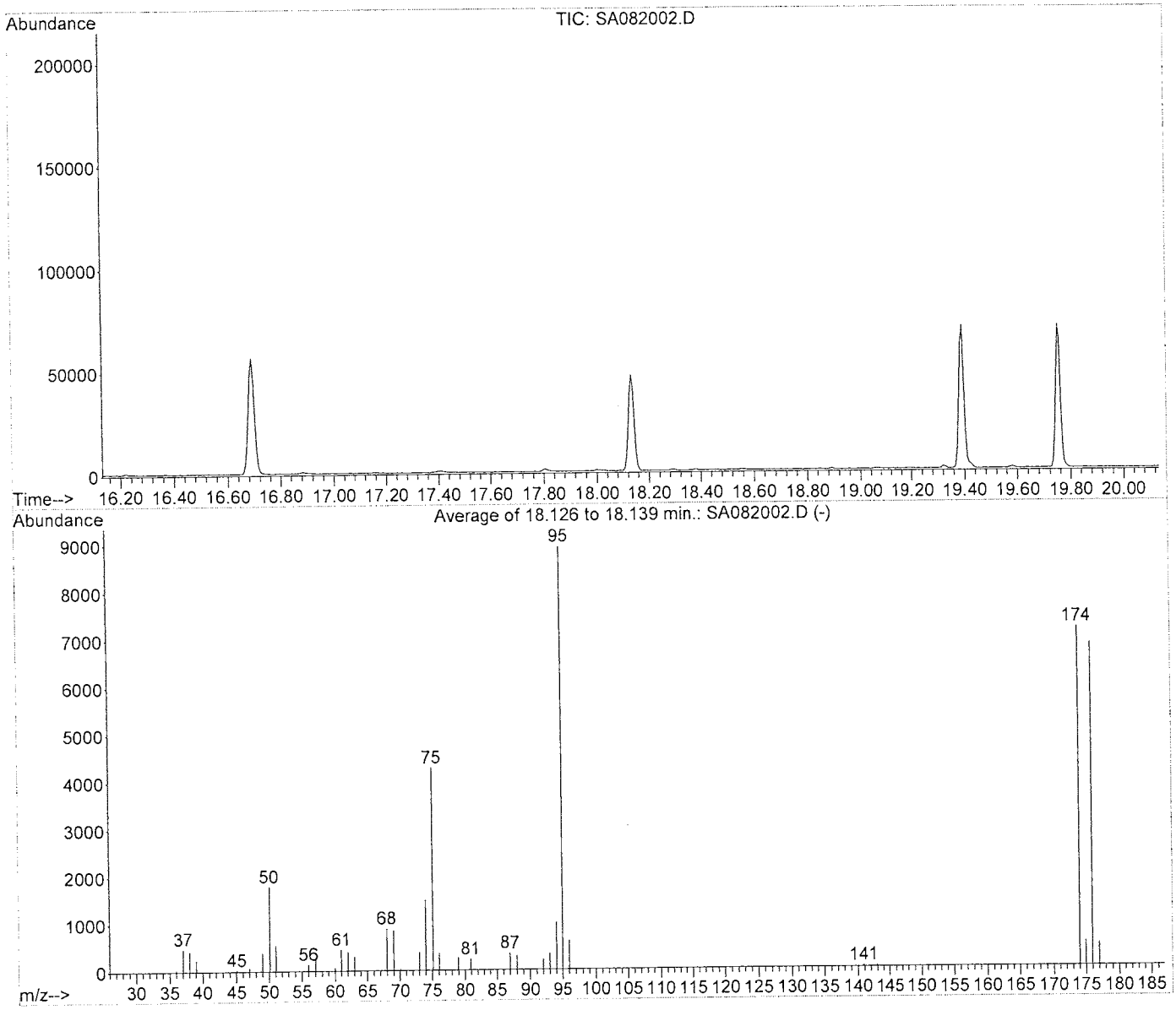
VOAMS5 Analysis Run Log

IS/SS ID= V- 4089
Standard ID= V- 4091A
Analyst: [signature]
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (G) 4085 (L) (Neco)
Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082001	GAS 20					VOCMS		Second Source		
2		BFB 25ng					VOCMS	51100819	AutoFind		✓
3		STD 10					VOCMS		OK		✓
4		STD 0.5					VOCMS				✓
5		MB		✓			VOCMS				✓
6		123315.01	✓	✓		x1	VOCMS		confirmation		
7		.04	✓	✓			VOCMS				
8		123380.01	✓	✓			VOCMS				
9		123611.14		✓			VOCMS				
10		.15		✓			VOCMS				
11		.16		✓			VOCMS				
12		.17		✓			VOCMS				
13		.18		✓			VOCMS				
14		.19		✓			VOCMS				
15		.20		✓			VOCMS				
16		~~123624.01~~		✓			VOCMS		123315.02 RR bromoform		
17		~~.02~~		✓			VOCMS		.03		
18		~~123668.01~~		✓			VOCMS		.05		
19		~~.02~~		✓			VOCMS		.06		
20		~~123669.01~~		✓			VOCMS		.07		
21		~~.02~~		✓			VOCMS		123677.01		
22		LCS 10					VOCMS		OK	✓	✓
23		LCSD 10					VOCMS			✓	✓
							VOCMS				
							VOCMS				
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							VOCMS				

Samples removed from autosampler, order and pH verified by ✓ ✓ ✓ [signature] 8/21/13 1-23

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 12:21 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	1794	PASS
75	95	30	60	48.0	4283	PASS
95	95	100	100	100.0	8920	PASS
96	95	5	9	6.9	619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.1	7146	PASS
175	174	5	9	7.4	529	PASS
176	174	95	101	95.3	6810	PASS
177	176	5	9	7.2	489	PASS

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 12:02:52 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 10:42:48 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

New 2nd Source GAS V-4092

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000	ug/L		0.00
System Monitoring Compounds							
61) SS 4-BFB_MS	18.13	95	131805	9.91	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.10%				
78) SS 1,2-DCB-d4_MS	19.75	152	139280	9.81	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.07%				
Target Compounds							Qvalue
2) dichlorodifluoromethane	2.85	85	213114	19.101	ug/L		100
3) chloromethane	3.20	50	198329	19.396	ug/L		100
4) vinyl chloride	3.34	62	96161	18.825	ug/L		100
5) bromomethane	3.99	94	101759	20.072	ug/L		97
6) chloroethane	4.11	64	118267	18.980	ug/L		97
7) trichlorofluoromethane	4.52	101	242259	18.266	ug/L		98
10) acetone	5.38	43	40059	18.639	ug/L		100
20) vinyl acetate	8.05	43	184735	11.189	ug/L		94
25) 2-butanone(MEK)	8.96	43	68939	17.682	ug/L		92
29) SS Dibromofluoromethane_MS	10.20	111	79209	9.778	ug/L		95
33) SS 1,2-DCA-d4_MS	11.33	65	96370	9.825	ug/L		96
41) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.604	ug/L		94
43) Chlorobenzene-D5 IS	16.69	117	268403	10.027	ug/L	#	92
44) SS Toluene-d8_MS	14.65	98	341573	10.012	ug/L	#	96
48) 2-hexanone	15.25	43	102376	19.581	ug/L		95
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	9.877	ug/L	#	90

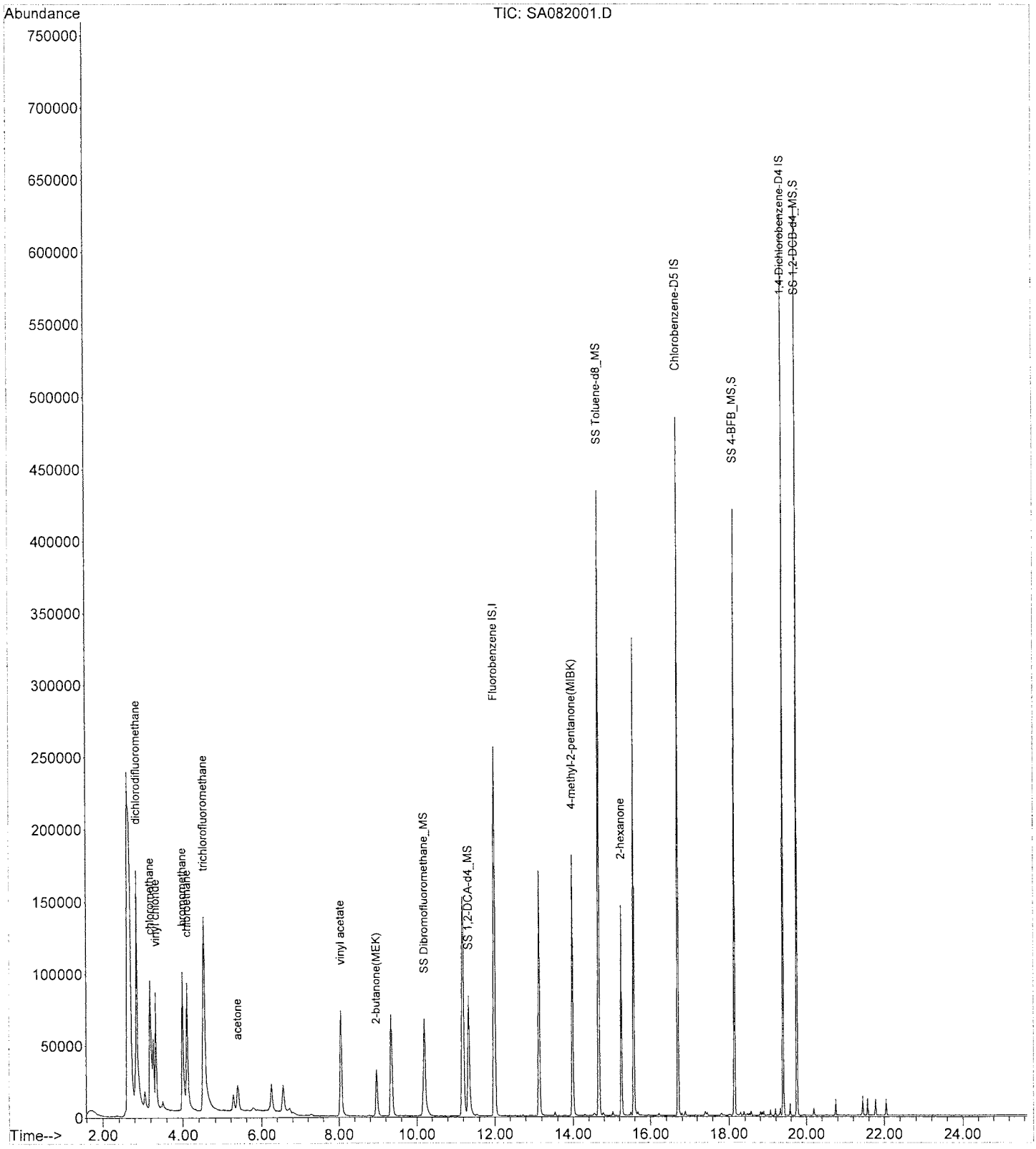
8/21/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 20 12:04 2013 Quant Results File: 5LID0819.RES

Method : W:\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
Professional laboratory & drilling services

123705
VOC 524.2
Support Data

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (6) 4085 (1)

Analyst: Blu

Date: 8/23/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082301	BFB					VOCMS	SV1D0819	AutoFind		✓
2	"	STD20					VOCMS	"	Acrolein ↑		✓
3		STD2					VOCMS				✓
4		MB					VOCMS				✓
5		123650.03		✓		x1	VOCMS				
6		↓ .04		✓			VOCMS				
7		↓ .05		✓			VOCMS				
8		123705.09		✓		↓	VOCMS				
9		123612.05	✓	✓		x5	VOCMS				
10		LCS20					VOCMS				✓
11		LCSD20					VOCMS	↓			✓
12		BFB25ng					VOCMS	SL1D0819	AutoFind		✓
13		STD10					VOCMS				✓
14		STD0.5					VOCMS				✓
15		MB					VOCMS				✓
16		123624.01		✓		x1	VOCMS				
17		↓ .02		✓			VOCMS				
18		123705.01		✓			VOCMS				
19		.02		✓			VOCMS				
20		.03		✓			VOCMS				
21		.04		✓			VOCMS				
22		.05		✓			VOCMS				
23		.06		✓			VOCMS				
24		.07		✓			VOCMS				
25		↓ .08		✓			VOCMS				
26		123792.01		✓			VOCMS				
27		123793.01		✓			VOCMS				
28		↓ .02		✓			VOCMS				
29		123767.01		✓			VOCMS				
30		↓ .02		✓			VOCMS				
31		123788.01		✓		↓	VOCMS				
32		LCS10					VOCMS			✓	✓
33	↓	LCSD10					VOCMS	↓		✓	✓
							~~VOCMS~~				
							VOCMS				
							VOCMS				
							~~VOCMS~~				
							VOCMS				
							VOCMS				
							VOCMS				
							VOCMS				
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✓ ✓ ✓

Samples removed from autosampler, order and pH verified by Blu 8/26/13 1-33

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082312.D
Tune Time : 23 Aug 2013 2:08 pm

Daily Calibration File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D

329680

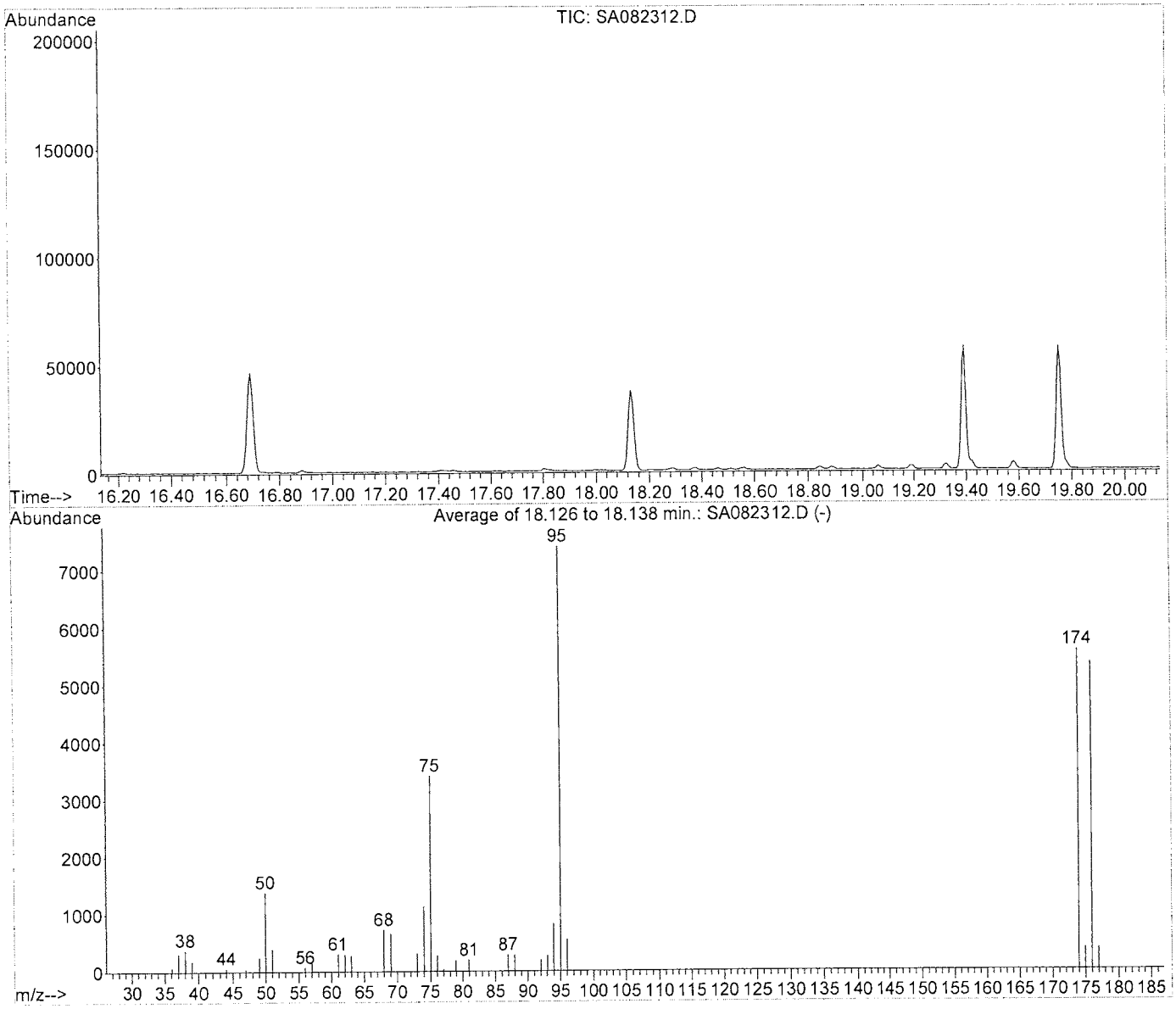
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082312.D	BFB 25ng			
SA082313.D	STD 10	104	105	304795
SA082314.D	STD 0.5	101	102	301304
SA082315.D	MB	100	101	286708
SA082316.D	123624.01	101	102	290170
SA082317.D	123624.02	100	101	288042
SA082318.D	123705.01	100	102	283483
SA082319.D	123705.02	101	102	282885
SA082320.D	123705.03	100	103	286456
SA082321.D	123705.04	100	101	297121
SA082322.D	123705.05	101	104	282820
SA082323.D	123705.06	100	104	280091
SA082324.D	123705.07	100	103	284643
SA082325.D	123705.08	100	104	288779
SA082326.D	123792.01	101	104	286157
SA082327.D	123793.01	100	103	281334
SA082328.D	123793.02	101	103	288514
SA082329.D	123767.01	102	105	277084
SA082330.D	123767.02	100	105	278382
SA082331.D	123788.01	102	107	277423
SA082332.D	LCS 10	105	108	275313
SA082333.D	tLCSD 10	105	108	287298

t - fails 12hr time check * - fails criteria

Created: Wed Sep 04 10:46:48 2013 VOAMS5

LCSD 10 was outside the 12 hr. window due to Centurion issue.
It passes BFB tune method criteria.

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082312.D Vial: 12
Acq On : 23 Aug 2013 2:08 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	1385	PASS
75	95	30	60	46.1	3415	PASS
95	95	100	100	100.0	7401	PASS
96	95	5	9	7.4	548	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	75.2	5568	PASS
175	174	5	9	6.8	381	PASS
176	174	95	101	96.1	5351	PASS
177	176	5	9	6.9	369	PASS

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 2:42 pm Operator: BAM
Sample : STD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene IS	10.000	10.000	0.0	92	0.00
2	dichlorodifluoromethane	10.000	8.828	11.7	84	0.00
3	chloromethane	10.000	8.953	10.5	89	0.00
4	vinyl chloride	10.000	9.598	4.0	98	0.00
5	bromomethane	10.000	9.728	2.7	96	0.00
6	chloroethane	10.000	9.281	7.2	90	0.00
7	trichlorofluoromethane	10.000	9.383	6.2	90	0.00
8	diethyl ether	10.000	9.037	9.6	86	0.00
9	1,1,2-Trichlorotrifluoroeth	10.000	9.384	6.2	90	0.00
10	acetone	10.000	8.865	11.3	82	-0.01
11	1,1-dichloroethene	10.000	8.788	12.1	86	0.00
12	tert-Butyl Alcohol(TBA)	50.000	45.742	8.5	88	-0.02
13	methylene chloride	10.000	9.312	6.9	91	0.00
14	carbon disulfide	10.000	8.724	12.8	87	0.00
15	acrylonitrile	10.000	9.953	0.5	94	0.00
16	Methyl-t-butyl ether(MTBE)	20.000	17.929	10.4	87	0.00
17	trans-1,2-dichloroethene	10.000	9.868	1.3	91	0.00
18	hexane	10.000	9.562	4.4	96	-0.01
19	Isopropyl ether(DIPE)	10.000	9.493	5.1	89	0.00
20	vinyl acetate	10.000	9.393	6.1	97	0.00
21	1,1-dichloroethane	10.000	9.816	1.8	91	0.00
22	Ethyl-t-butyl ether(ETBE)	10.000	9.228	7.7	86	0.00
23	2,2-dichloropropane	10.000	9.150	8.5	87	0.00
24	cis-1,2-dichloroethene	10.000	9.948	0.5	93	0.00
25	2-butanone(MEK)	10.000	9.211	7.9	90	0.00
26	bromochloromethane	10.000	10.012	-0.1	92	0.00
27	Tetrahydrofuran(THF)	10.000	8.891	11.1	90	0.00
28	chloroform	10.000	10.037	-0.4	94	0.00
29	SS Dibromofluoromethane_MS	10.000	10.040	-0.4	92	0.00
30	1,1,1-trichloroethane	10.000	9.127	8.7	85	0.00
31	carbon tetrachloride	10.000	9.188	8.1	85	0.00
32	1,1-dichloropropene	10.000	9.621	3.8	91	0.00
33	SS 1,2-DCA-d4_MS	10.000	9.854	1.5	90	0.00
34	tert-amyl methyl ether(TAME	10.000	9.253	7.5	87	0.00
35	benzene	10.000	9.914	0.9	93	-0.01
36	1,2-dichloroethane	10.000	9.628	3.7	89	0.00
37	trichloroethene	10.000	9.602	4.0	89	0.00
38	1,2-dichloropropane	10.000	9.929	0.7	93	0.00
39	dibromomethane	10.000	9.976	0.2	93	0.00
40	bromodichloromethane	10.000	9.518	4.8	87	0.00
41	4-methyl-2-pentanone(MIBK)	10.000	9.456	5.4	88	0.00
42	cis-1,3-dichloropropene	10.000	9.584	4.2	88	0.00
43	Chlorobenzene-D5 IS	10.000	10.377	-3.8	96	0.00
44	SS Toluene-d8_MS	10.000	10.155	-1.5	94	0.00
45	toluene	10.000	9.811	1.9	92	0.00
46	trans-1,3-dichloropropene	10.000	9.496	5.0	86	0.00
47	1,1,2-trichloroethane	10.000	9.905	1.0	92	0.00
48	2-hexanone	10.000	9.405	6.0	88	0.00
49	tetrachloroethene	10.000	9.526	4.7	89	0.00
50	1,3-dichloropropane	10.000	9.973	0.3	92	0.00
51	dibromochloromethane	10.000	9.602	4.0	88	0.00
52	1,2-dibromoethane	10.000	9.895	1.1	91	0.00
53	chlorobenzene	10.000	9.872	1.3	92	0.00
54	1,1,1,2-tetrachloroethane	10.000	9.745	2.6	87	0.00
55	ethylbenzene	10.000	9.928	0.7	92	0.00
56	mp-xylene	20.000	19.539	2.3	92	0.00
57	o-xylene	10.000	9.852	1.5	91	0.00

58		styrene	10.000	10.075	-0.7	91	0.00
59		bromoform	10.000	10.109	-1.1	83	0.00
60		iso-propylbenzene	10.000	9.919	0.8	91	0.00
61	S	SS 4-BFB_MS	10.000	10.443	-4.4	96	0.00
62		1,4-Dichlorobenzene-D4 IS	10.000	10.352	-3.5	94	0.00
63		bromobenzene	10.000	9.840	1.6	91	0.00
64		1,1,2,2-tetrachloroethane	10.000	10.211	-2.1	95	0.00
65		1,2,3-trichloropropane	10.000	9.852	1.5	91	0.00
66		n-propylbenzene	10.000	9.981	0.2	91	0.00
67		2-chlorotoluene	10.000	9.801	2.0	91	0.00
68		4-chlorotoluene	10.000	9.764	2.4	89	0.00
69		1,3,5-trimethylbenzene	10.000	9.943	0.6	90	0.00
70		tert-butylbenzene	10.000	9.838	1.6	90	0.00
71		1,2,4-trimethylbenzene	10.000	10.004	-0.0	90	0.00
72		sec-butylbenzene	10.000	9.984	0.2	91	0.00
73		1,3-dichlorobenzeneV	10.000	9.821	1.8	90	0.00
74		p-isopropyltoluene	10.000	10.057	-0.6	90	0.00
75		1,4-dichlorobenzeneV	10.000	9.763	2.4	91	0.00
76		1,2-dichlorobenzeneV	10.000	9.825	1.8	91	0.00
77		n-butylbenzene	10.000	10.150	-1.5	91	0.00
78	S	SS 1,2-DCB-d4_MS	10.000	10.529	-5.3	96	0.00
79		1,2-dibromo-3-chloropropane	10.000	8.685	13.1	88	0.00
80		1,3,5-trichlorobenzV	10.000	9.775	2.2	90	0.00
81		1,2,4-trichlorobenzV	10.000	9.695	3.0	88	0.00
82		hexachlorobutadieneV	10.000	9.003	10.0	86	0.00
83		naphthaleneV	10.000	10.160	-1.6	90	0.00
84		1,2,3-trichlorobenzV	10.000	9.778	2.2	90	0.00
85		SS 2,5-DBT_MS	10.000	7.904	21.0	82	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA081908.D 5LID0819.M Tue Aug 27 09:34:05 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 2:42 pm Operator: BAM
Sample : STD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:09 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	304795	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	123835	10.44	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.43%			
78) SS 1,2-DCB-d4_MS	19.75	152	133326	10.53	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.29%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	87818	8.828	ug/L	99
3) chloromethane	3.19	50	81628	8.953	ug/L	100
4) vinyl chloride	3.34	62	43715	9.598	ug/L	100
5) bromomethane	3.99	94	43974	9.728	ug/L #	97
6) chloroethane	4.11	64	51560	9.281	ug/L	96
7) trichlorofluoromethane	4.52	101	110958	9.383	ug/L	100
8) diethyl ether	5.02	59	55691	9.037	ug/L	95
9) 1,1,2-Trichlorotrifluoroet	5.27	101	76179	9.384	ug/L	94
10) acetone	5.38	43	16987	8.865	ug/L	97
11) 1,1-dichloroethene	5.61	96	67662	8.788	ug/L	89
12) tert-Butyl Alcohol(TBA)	5.77	59	30099	45.742	ug/L	91
13) methylene chloride	6.55	84	79393	9.312	ug/L	87
14) carbon disulfide	6.57	76	202905	8.724	ug/L	99
15) acrylonitrile	6.82	53	33895	9.953	ug/L	96
16) Methyl-t-butyl ether(MTBE)	6.85	73	392806	17.929	ug/L #	96
17) trans-1,2-dichloroethene	7.15	96	80211	9.868	ug/L	91
18) hexane	7.27	57	123915	9.562	ug/L	94
19) Isopropyl ether(DIPE)	7.81	45	272882	9.493	ug/L	96
20) vinyl acetate	8.05	43	138276	9.393	ug/L	95
21) 1,1-dichloroethane	8.04	63	148342	9.816	ug/L	99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	232587	9.228	ug/L	96
23) 2,2-dichloropropane	9.25	77	103889	9.150	ug/L	96
24) cis-1,2-dichloroethene	9.35	61	118197	9.948	ug/L	92
25) 2-butanone(MEK)	8.96	43	32021	9.211	ug/L	92
26) bromochloromethane	10.08	128	42789	10.012	ug/L #	88
27) Tetrahydrofuran(THF)	10.15	42	22093	8.891	ug/L	91
28) chloroform	9.71	83	147359	10.037	ug/L #	97
29) SS Dibromofluoromethane_MS	10.20	111	72515	10.040	ug/L #	94
30) 1,1,1-trichloroethane	10.60	97	110124	9.127	ug/L	97
31) carbon tetrachloride	11.17	117	92354	9.188	ug/L #	97
32) 1,1-dichloropropene	10.96	75	116078	9.621	ug/L #	89
33) SS 1,2-DCA-d4_MS	11.33	65	86179	9.854	ug/L	95
34) tert-amyl methyl ether(TAM	11.24	73	201894	9.253	ug/L #	88
35) benzene	11.55	78	347045	9.914	ug/L	96
36) 1,2-dichloroethane	11.54	62	115009	9.628	ug/L	98
37) trichloroethene	12.73	95	86633	9.602	ug/L	93
38) 1,2-dichloropropane	13.05	63	85865	9.929	ug/L	96
39) dibromomethane	13.53	93	48534	9.976	ug/L #	92
40) bromodichloromethane	13.44	83	93514	9.518	ug/L	98
41) 4-methyl-2-pentanone(MIBK)	13.98	58	24997	9.456	ug/L	86
42) cis-1,3-dichloropropene	14.30	75	114315	9.584	ug/L #	88
43) Chlorobenzene-D5 IS	16.69	117	247666	10.377	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	308910	10.155	ug/L #	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 2:42 pm Operator: BAM
Sample : STD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:09 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

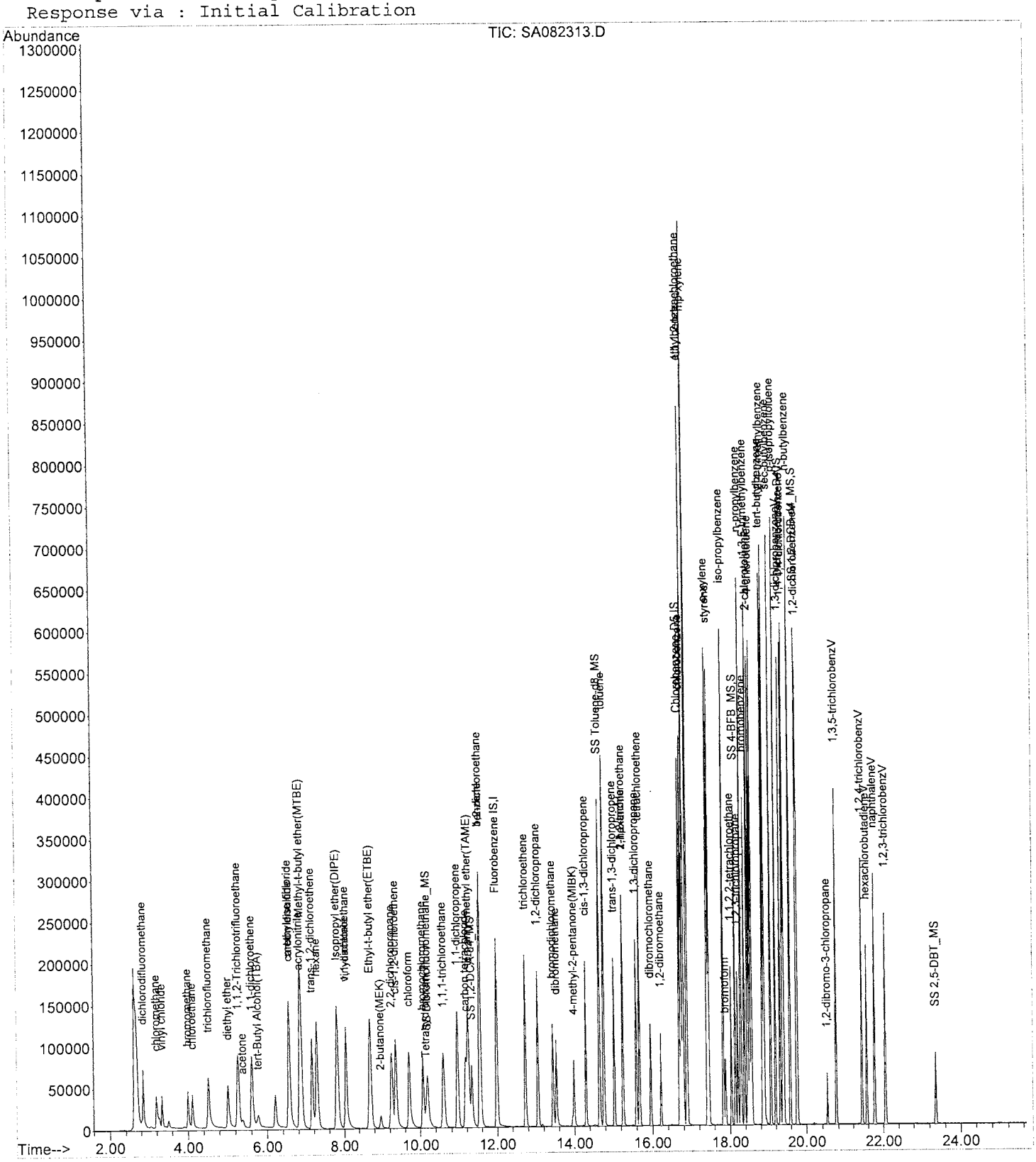
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	375993	9.811 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	104097	9.496 ug/L #	90
47) 1,1,2-trichloroethane	15.25	83	57992	9.905 ug/L	95
48) 2-hexanone	15.25	43	43846	9.405 ug/L	94
49) tetrachloroethene	15.67	166	95317	9.526 ug/L #	93
50) 1,3-dichloropropane	15.59	76	124700	9.973 ug/L #	85
51) dibromochloromethane	15.95	129	65277	9.602 ug/L #	100
52) 1,2-dibromoethane	16.22	107	71841	9.895 ug/L #	99
53) chlorobenzene	16.74	112	255864	9.872 ug/L #	92
54) 1,1,1,2-tetrachloroethane	16.79	131	75879	9.745 ug/L	99
55) ethylbenzene	16.79	91	433078	9.928 ug/L	98
56) mp-xylene	16.89	106	350287	19.539 ug/L #	95
57) o-xylene	17.41	106	166691	9.852 ug/L #	95
58) styrene	17.46	104	279337	10.075 ug/L #	97
59) bromoform	17.89	173	33840	10.109 ug/L #	92
60) iso-propylbenzene	17.83	105	401279	9.919 ug/L #	98
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	130997	10.352 ug/L	98
63) bromobenzene	18.38	156	107177	9.840 ug/L #	89
64) 1,1,2,2-tetrachloroethane	18.04	83	87296	10.211 ug/L	99
65) 1,2,3-trichloropropane	18.21	110	27063	9.852 ug/L	93
66) n-propylbenzene	18.28	91	511373	9.981 ug/L	97
67) 2-chlorotoluene	18.51	91	309402	9.801 ug/L	97
68) 4-chlorotoluene	18.56	91	310969	9.764 ug/L	97
69) 1,3,5-trimethylbenzene	18.46	105	359156	9.943 ug/L	98
70) tert-butylbenzene	18.84	119	314150	9.838 ug/L	97
71) 1,2,4-trimethylbenzene	18.89	105	370636	10.004 ug/L	98
72) sec-butylbenzene	19.06	105	448685	9.984 ug/L	98
73) 1,3-dichlorobenzeneV	19.32	146	207147	9.821 ug/L	96
74) p-isopropyltoluene	19.19	119	384628	10.057 ug/L	97
75) 1,4-dichlorobenzeneV	19.42	146	206614m	9.763 ug/L	
76) 1,2-dichlorobenzeneV	19.78	146	192972	9.825 ug/L #	93
77) n-butylbenzene	19.58	91	327013	10.150 ug/L	98
79) 1,2-dibromo-3-chloropropan	20.52	157	14101	8.685 ug/L	93
80) 1,3,5-trichlorobenzV	20.75	180	116907	9.775 ug/L #	92
81) 1,2,4-trichlorobenzV	21.44	180	97029	9.695 ug/L #	91
82) hexachlorobutadieneV	21.56	225	40159	9.003 ug/L #	92
83) naphthaleneV	21.76	128	254185	10.160 ug/L	99
84) 1,2,3-trichlorobenzV	22.05	180	83966	9.778 ug/L #	92
85) SS 2,5-DBT_MS	23.36	250	21000	7.904 ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 2:42 pm Operator: BAM
Sample : STD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:34 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082314.D Vial: 14
Acq On : 23 Aug 2013 3:16 pm Operator: BAM
Sample : STD 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:37 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	301304	10.000 ug/L	0.00
System Monitoring Compounds					
61) SS 4-BFB_MS	18.13	95	117938	10.06 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.61%		
78) SS 1,2-DCB-d4_MS	19.75	152	127936	10.22 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.20%		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	4500	0.458 ug/L #	93
3) chloromethane	3.19	50	5074	0.563 ug/L #	88
4) vinyl chloride	3.34	62	2309	0.513 ug/L	97
5) bromomethane	3.99	94	3087	0.691 ug/L #	80
6) chloroethane	4.12	64	2649	0.482 ug/L	95
7) trichlorofluoromethane	4.52	101	5399	0.462 ug/L	95
8) diethyl ether	5.02	59	2710	0.445 ug/L #	85
9) 1,1,2-Trichlorotrifluoroet	5.28	101	3892	0.485 ug/L	94
10) acetone	5.39	43	2263	1.195 ug/L #	71
11) 1,1-dichloroethene	5.62	96	3727	0.490 ug/L	89
12) tert-Butyl Alcohol(TBA)	5.78	59	1868	2.872 ug/L #	51
13) methylene chloride	6.54	84	8084	0.959 ug/L	86
14) carbon disulfide	6.57	76	20218	0.879 ug/L #	93
15) acrylonitrile	6.82	53	1906	0.566 ug/L	95
16) Methyl-t-butyl ether(MTBE)	6.86	73	21324	0.985 ug/L #	87
17) trans-1,2-dichloroethene	7.15	96	4356	0.542 ug/L	92
18) hexane	7.27	57	6195	0.484 ug/L #	88
19) Isopropyl ether(DIPE)	7.82	45	15059	0.530 ug/L	94
20) vinyl acetate	8.05	43	5796	0.398 ug/L #	85
21) 1,1-dichloroethane	8.05	63	8057	0.539 ug/L #	91
22) Ethyl-t-butyl ether(ETBE)	8.70	59	12643	0.507 ug/L	96
23) 2,2-dichloropropane	9.25	77	5187	0.462 ug/L #	88
24) cis-1,2-dichloroethene	9.36	61	6505	0.554 ug/L	90
25) 2-butanone(MEK)	8.96	43	1861	0.542 ug/L #	72
26) bromochloromethane	10.07	128	2428	0.575 ug/L #	86
27) Tetrahydrofuran(THF)	10.16	42	1514	0.616 ug/L #	72
28) chloroform	9.71	83	14685	1.012 ug/L	96
29) SS Dibromofluoromethane_MS	10.20	111	69864	9.785 ug/L #	94
30) 1,1,1-trichloroethane	10.61	97	5790	0.485 ug/L	96
31) carbon tetrachloride	11.17	117	4526	0.456 ug/L	97
32) 1,1-dichloropropene	10.96	75	6262	0.525 ug/L #	83
33) SS 1,2-DCA-d4_MS	11.33	65	84738	9.802 ug/L	95
34) tert-amyl methyl ether(TAM	11.25	73	10740	0.498 ug/L #	89
35) benzene	11.55	78	19809	0.572 ug/L #	95
36) 1,2-dichloroethane	11.54	62	6702	0.568 ug/L	95
37) trichloroethene	12.73	95	5007	0.561 ug/L	92
38) 1,2-dichloropropane	13.05	63	4816	0.563 ug/L #	91
39) dibromomethane	13.53	93	2950	0.613 ug/L	90
40) bromodichloromethane	13.44	83	5152	0.530 ug/L	98
41) 4-methyl-2-pentanone(MIBK)	13.99	58	1239	0.474 ug/L #	86
42) cis-1,3-dichloropropene	14.30	75	5408	0.459 ug/L #	84
43) Chlorobenzene-D5 IS	16.69	117	241837	10.250 ug/L #	92
44) SS Toluene-d8_MS	14.65	98	301488	10.026 ug/L #	96

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082314.D Vial: 14
Acq On : 23 Aug 2013 3:16 pm Operator: BAM
Sample : STD 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:37 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

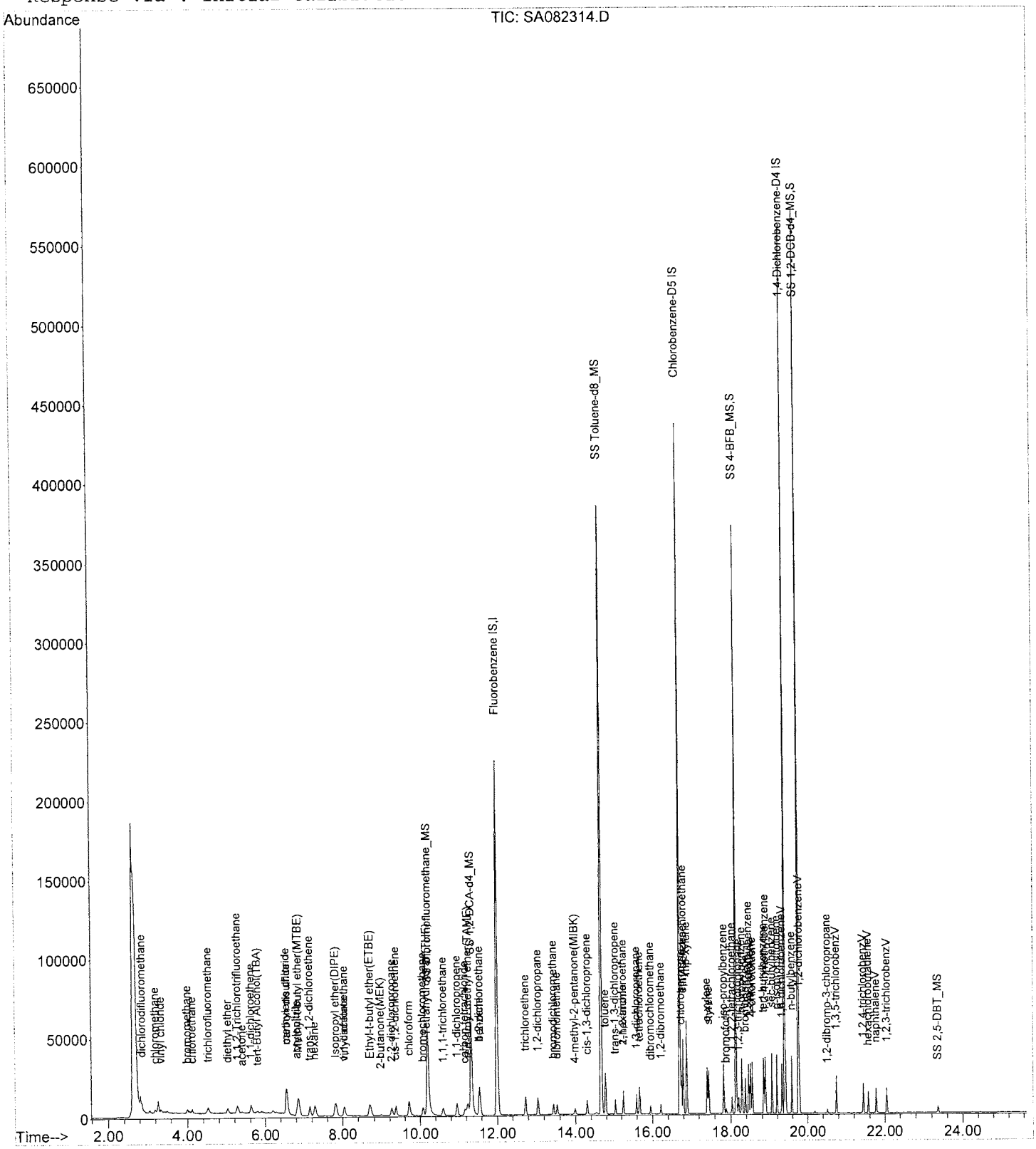
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) toluene	14.77	91	21754	0.574 ug/L #	99
46) trans-1,3-dichloropropene	15.03	75	4976	0.459 ug/L #	86
47) 1,1,2-trichloroethane	15.25	83	3192	0.552 ug/L #	93
48) 2-hexanone	15.25	43	2149	0.466 ug/L #	82
49) tetrachloroethene	15.67	166	5384	0.544 ug/L #	94
50) 1,3-dichloropropane	15.59	76	7050	0.570 ug/L #	84
51) dibromochloromethane	15.95	129	2905	0.432 ug/L #	97
52) 1,2-dibromoethane	16.21	107	3899	0.543 ug/L #	96
53) chlorobenzene	16.74	112	14459	0.564 ug/L #	91
54) 1,1,1,2-tetrachloroethane	16.79	131	3527	0.458 ug/L #	74
55) ethylbenzene	16.79	91	23460	0.544 ug/L #	97
56) mp-xylene	16.89	106	18952	1.069 ug/L #	96
57) o-xylene	17.41	106	8546	0.511 ug/L #	93
58) styrene	17.46	104	13531	0.494 ug/L #	97
59) bromoform	17.89	173	1398	0.422 ug/L #	88
60) iso-propylbenzene	17.82	105	20863	0.522 ug/L #	97
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	125906	10.065 ug/L	90
63) bromobenzene	18.38	156	5988	0.556 ug/L #	87
64) 1,1,2,2-tetrachloroethane	18.04	83	4708	0.557 ug/L #	1
65) 1,2,3-trichloropropane	18.20	110	1467	0.540 ug/L #	82
66) n-propylbenzene	18.28	91	26872	0.531 ug/L	97
67) 2-chlorotoluene	18.51	91	17250	0.553 ug/L	97
68) 4-chlorotoluene	18.56	91	17351	0.551 ug/L	96
69) 1,3,5-trimethylbenzene	18.46	105	18006	0.504 ug/L	97
70) tert-butylbenzene	18.84	119	16288	0.516 ug/L	94
71) 1,2,4-trimethylbenzene	18.89	105	18849	0.515 ug/L	96
72) sec-butylbenzene	19.06	105	23336	0.525 ug/L	97
73) 1,3-dichlorobenzeneV	19.32	146	11714	0.562 ug/L	97
74) p-isopropyltoluene	19.19	119	18826	0.498 ug/L	96
75) 1,4-dichlorobenzeneV	19.32	146	11714	0.560 ug/L	97
76) 1,2-dichlorobenzeneV	19.78	146	11116	0.573 ug/L #	1
77) n-butylbenzene	19.58	91	16574	0.520 ug/L	96
79) 1,2-dibromo-3-chloropropan	20.52	157	556	1.551 ug/L #	90
80) 1,3,5-trichlorobenzV	20.75	180	6903	0.584 ug/L #	94
81) 1,2,4-trichlorobenzV	21.44	180	6171	0.624 ug/L #	92
82) hexachlorobutadieneV	21.57	225	2732	0.620 ug/L #	92
83) naphthaleneV	21.76	128	13854	0.560 ug/L	99
84) 1,2,3-trichlorobenzV	22.05	180	5572	0.656 ug/L #	93
85) SS 2,5-DBT_MS	23.36	250	1165	1.443 ug/L #	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082314.D Vial: 14
Acq On : 23 Aug 2013 3:16 pm Operator: BAM
Sample : STD 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:55 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Mon Aug 26 13:56:17 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082315.D Vial: 15
Acq On : 23 Aug 2013 3:51 pm Operator: BAM
Sample : MB Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:40 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

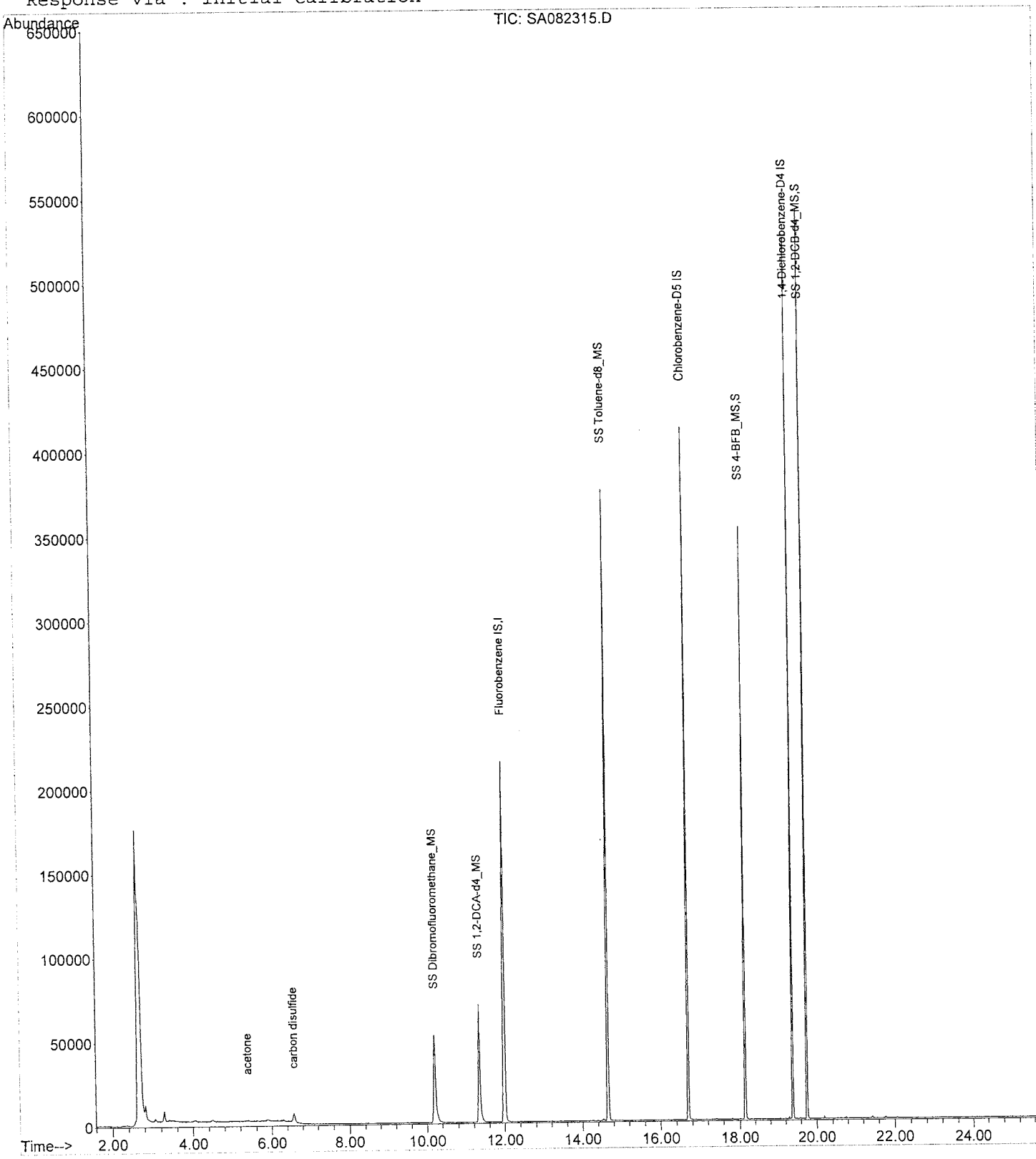
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	286708	10.000 ug/L	0.00
System Monitoring Compounds					
61) SS 4-BFB_MS	18.13	95	111068	9.96 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.57%		
78) SS 1,2-DCB-d4_MS	19.75	152	120439	10.11 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.11%		
Target Compounds					Qvalue
10) acetone	5.38	43	633	0.351 ug/L #	41
14) carbon disulfide	6.57	76	8175	0.374 ug/L #	82
29) SS Dibromofluoromethane_MS	10.19	111	65976	9.711 ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	81417	9.897 ug/L	96
43) Chlorobenzene-D5 IS	16.69	117	232260	10.346 ug/L #	93
44) SS Toluene-d8_MS	14.65	98	288512	10.083 ug/L	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	118649	9.968 ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082315.D Vial: 15
Acq On : 23 Aug 2013 3:51 pm Operator: BAM
Sample : MB Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:55 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082318.D Vial: 18
Acq On : 23 Aug 2013 5:34 pm Operator: BAM
Sample : 123705.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:59 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	283483	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	110266	10.00	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.98%			
78) SS 1,2-DCB-d4_MS	19.75	152	119598	10.15	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.55%			
Target Compounds						Qvalue
10) acetone	5.39	43	9204	5.164	ug/L	92
12) tert-Butyl Alcohol(TBA)	5.78	59	353	0.577	ug/L #	1
14) carbon disulfide	6.57	76	11854	0.548	ug/L #	85
25) 2-butanone(MEK)	8.98	43	1201	0.371	ug/L #	53
27) Tetrahydrofuran(THF)	10.16	42	318	0.138	ug/L #	32
28) chloroform	9.71	83	5658	0.414	ug/L	97
29) SS Dibromofluoromethane_MS	10.20	111	65613	9.767	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	81257	9.990	ug/L	96
40) bromodichloromethane	13.44	83	1310	0.143	ug/L #	96
43) Chlorobenzene-D5 IS	16.69	117	229455	10.337	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	285726	10.099	ug/L #	96
56) mp-xylene	16.89	106	1709	0.102	ug/L	90
57) o-xylene	17.42	106	3441	0.219	ug/L #	98
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	117155	9.954	ug/L	90

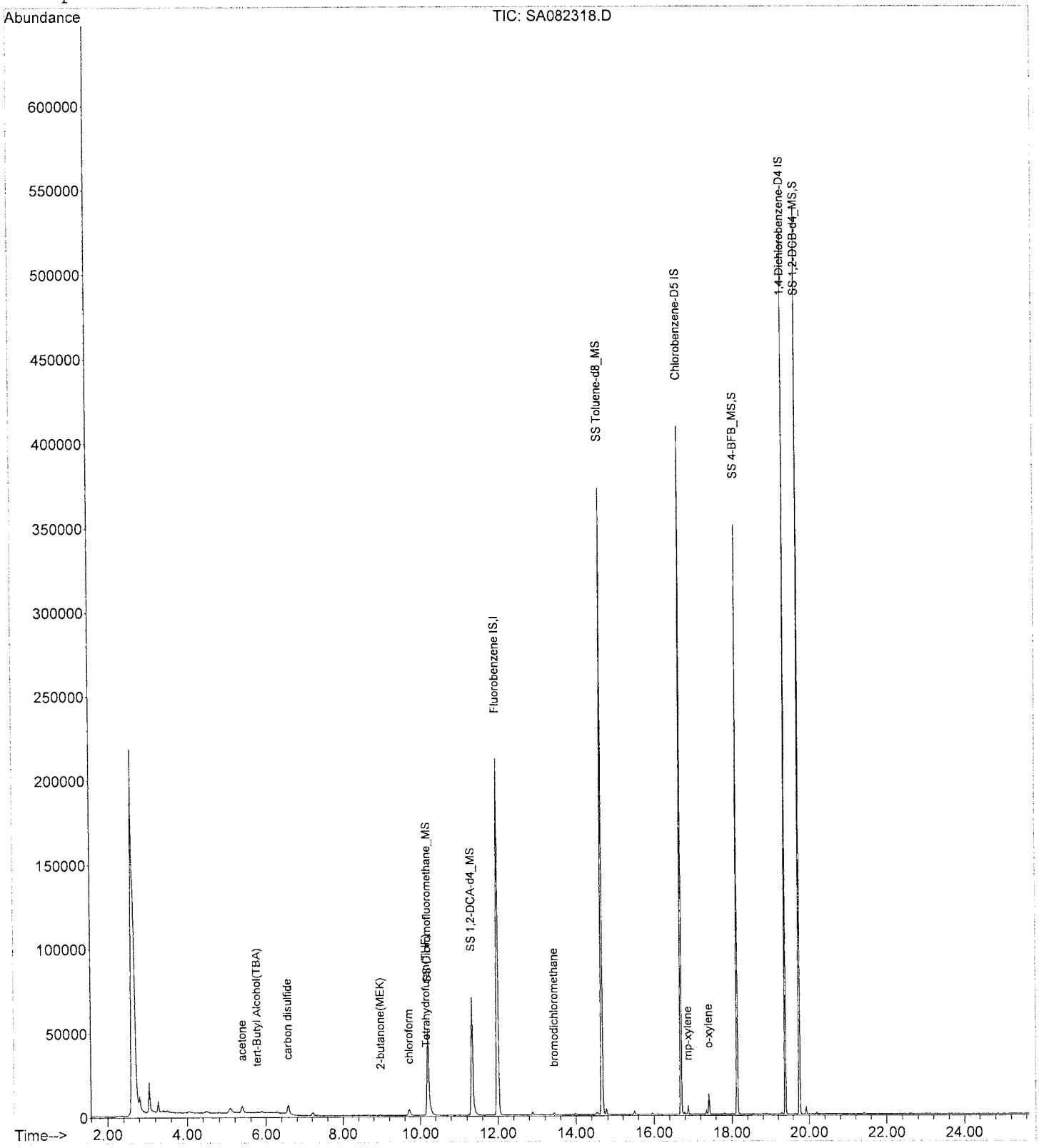
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082318.D 5LID0819.M Mon Aug 26 07:35:00 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082318.D Vial: 18
Acq On : 23 Aug 2013 5:34 pm Operator: BAM
Sample : 123705.01 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:34 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082319.D Vial: 19
Acq On : 23 Aug 2013 6:09 pm Operator: BAM
Sample : 123705.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:03 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	282885	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	111366	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.19%			
78) SS 1,2-DCB-d4_MS	19.75	152	119892	10.20	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.01%			
Target Compounds						Qvalue
10) acetone	5.38	43	8978	5.048	ug/L	99
12) tert-Butyl Alcohol(TBA)	5.78	59	199	0.326	ug/L #	81
14) carbon disulfide	6.57	76	6853	0.317	ug/L #	78
25) 2-butanone(MEK)	8.97	43	1562	0.484	ug/L #	57
27) Tetrahydrofuran(THF)	10.16	42	306	0.133	ug/L #	32
28) chloroform	9.71	83	6109	0.448	ug/L	97
29) SS Dibromofluoromethane_MS	10.20	111	65553	9.779	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	81249	10.010	ug/L #	96
40) bromodichloromethane	13.44	83	1498	0.164	ug/L #	93
43) Chlorobenzene-D5 IS	16.69	117	231045	10.431	ug/L #	94
44) SS Toluene-d8_MS	14.65	98	285901	10.126	ug/L #	97
51) dibromochloromethane	15.95	129	656	0.104	ug/L #	100
57) o-xylene	17.42	106	3139	0.200	ug/L	94
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	116968	9.959	ug/L #	90

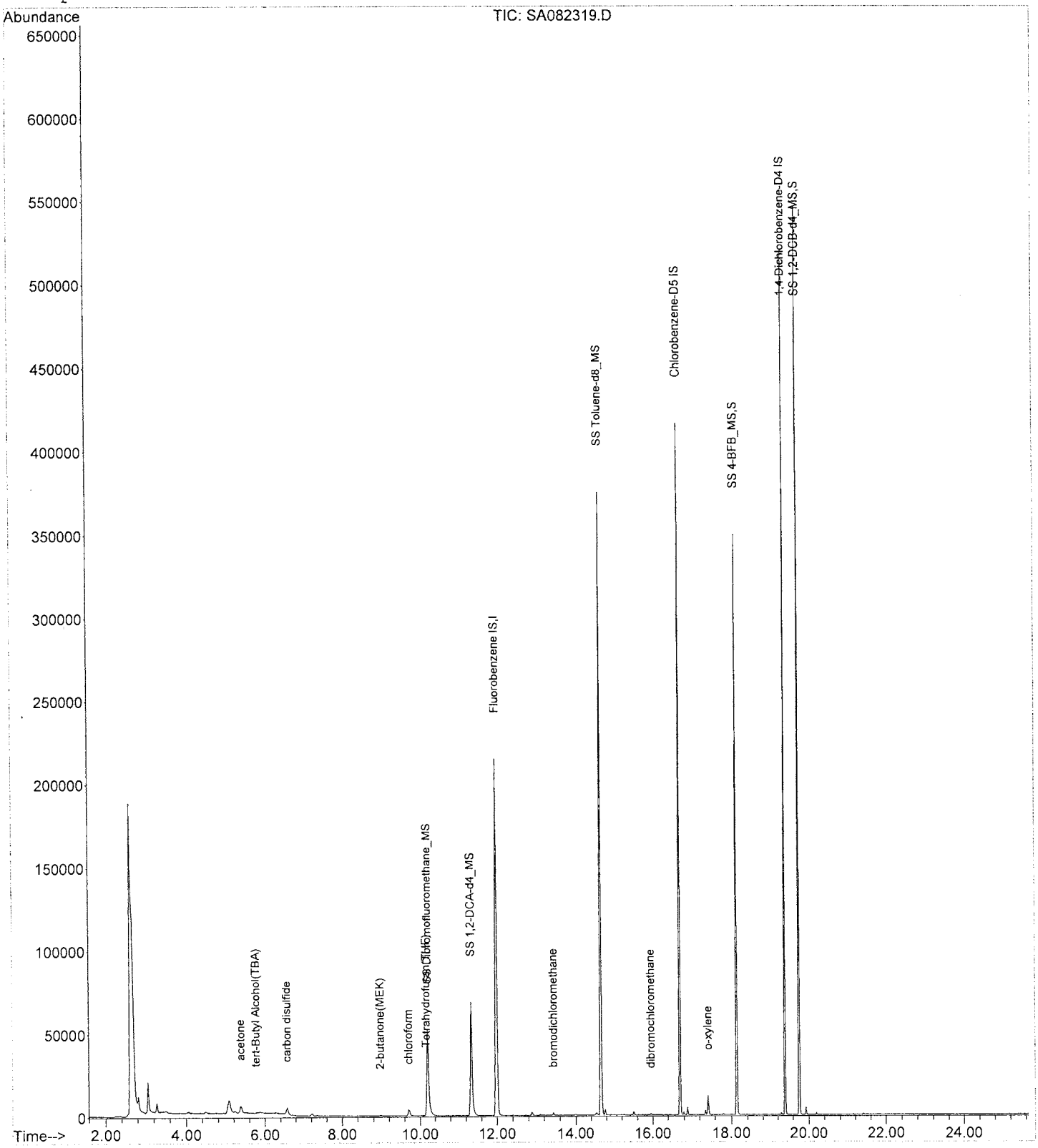
B 8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082319.D Vial: 19
Acq On : 23 Aug 2013 6:09 pm Operator: BAM
Sample : 123705.02 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082320.D Vial: 20
Acq On : 23 Aug 2013 6:43 pm Operator: BAM
Sample : 123705.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:07 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	286456	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	111948	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.45%			
78) SS 1,2-DCB-d4_MS	19.75	152	122154	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.64%			
Target Compounds						Qvalue
10) acetone	5.39	43	817	0.454	ug/L #	50
14) carbon disulfide	6.57	76	6735	0.308	ug/L #	89
27) Tetrahydrofuran(THF)	10.17	42	326	0.140	ug/L #	32
29) SS Dibromofluoromethane_MS	10.20	111	66682	9.824	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	82248	10.007	ug/L	96
43) Chlorobenzene-D5 IS	16.69	117	233146	10.394	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	288700	10.098	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	119947	10.086	ug/L	90

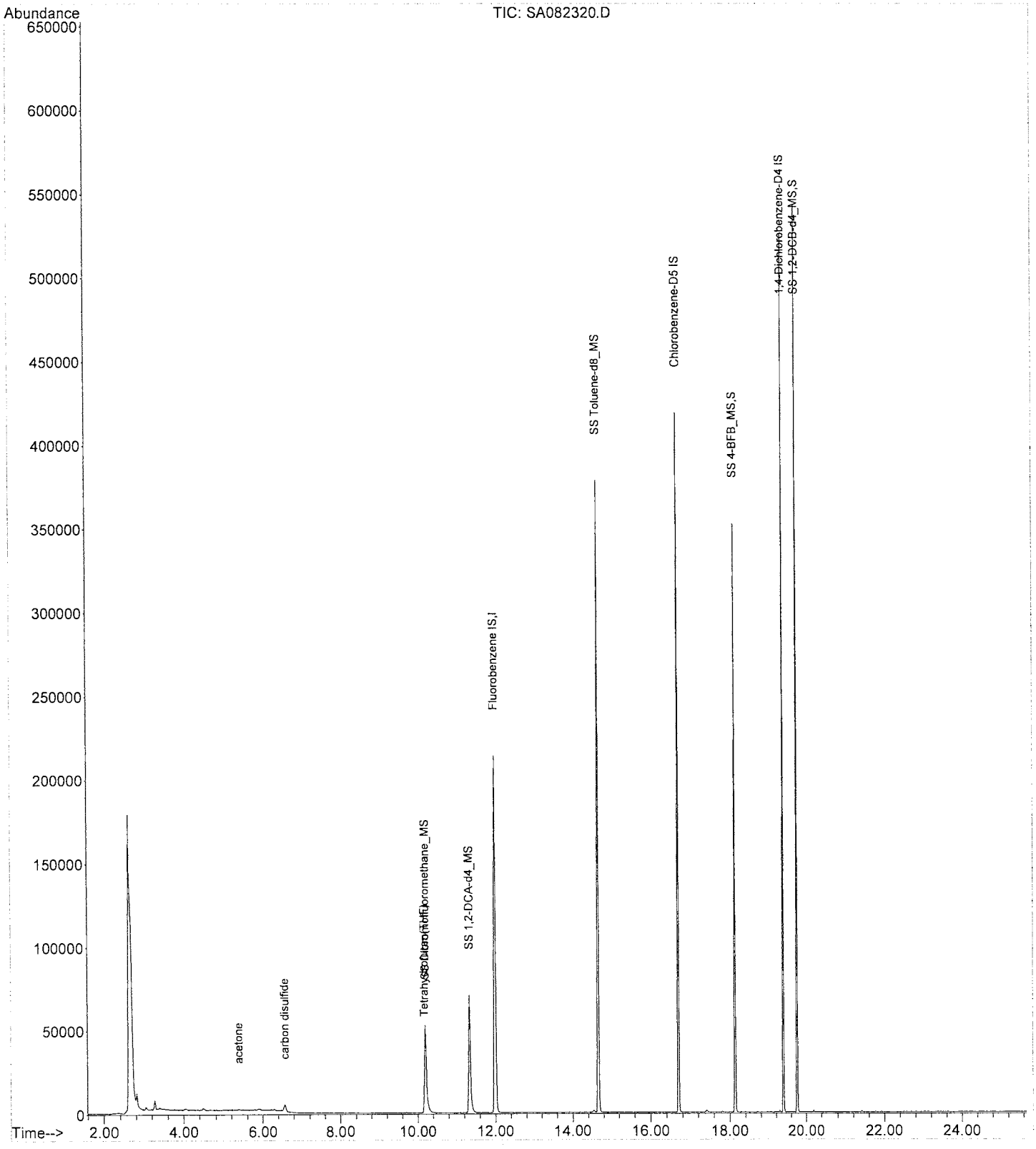
B Lee 8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082320.D Vial: 20
Acq On : 23 Aug 2013 6:43 pm Operator: BAM
Sample : 123705.03 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082321.D Vial: 21
Acq On : 23 Aug 2013 7:17 pm Operator: BAM
Sample : 123705.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:11 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	297121	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	116002	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.35%			
78) SS 1,2-DCB-d4_MS	19.75	152	125238	10.15	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.45%			
Target Compounds						Qvalue
8) diethyl ether	5.02	59	1338	0.223	ug/L #	49
10) acetone	5.39	43	3700	1.981	ug/L #	83
14) carbon disulfide	6.57	76	8640	0.381	ug/L #	81
27) Tetrahydrofuran(THF)	10.17	42	462	0.191	ug/L #	32
29) SS Dibromofluoromethane_MS	10.20	111	69688	9.898	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	85840	10.069	ug/L #	96
43) Chlorobenzene-D5 IS	16.69	117	241397	10.376	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	300875	10.146	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	124130	10.063	ug/L	89

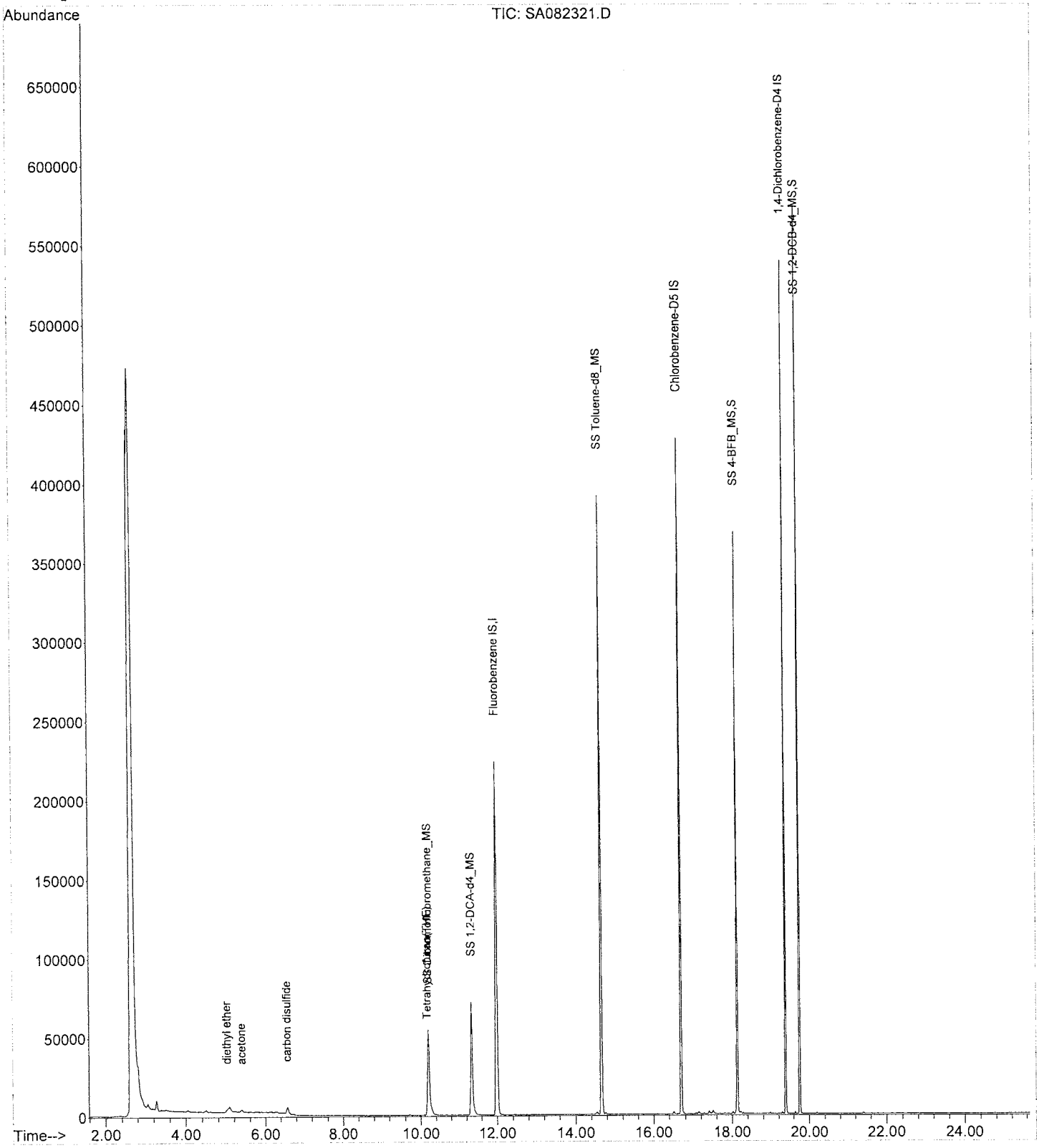
BSCC 8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082321.D Vial: 21
Acq On : 23 Aug 2013 7:17 pm Operator: BAM
Sample : 123705.04 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082322.D Vial: 22
Acq On : 23 Aug 2013 7:52 pm Operator: BAM
Sample : 123705.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:15 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	282820	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	110786	10.07	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.69%			
78) SS 1,2-DCB-d4_MS	19.75	152	121802	10.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.66%			
Target Compounds						Qvalue
8) diethyl ether	5.02	59	1503	0.263	ug/L	95
10) acetone	5.40	43	2194	1.234	ug/L #	72
12) tert-Butyl Alcohol(TBA)	5.78	59	300	0.491	ug/L #	7
14) carbon disulfide	6.57	76	9562	0.443	ug/L #	74
27) Tetrahydrofuran(THF)	10.18	42	715	0.310	ug/L #	41
29) SS Dibromofluoromethane_MS	10.19	111	66477	9.919	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	83265	10.261	ug/L #	96
43) Chlorobenzene-D5 IS	16.69	117	231449	10.451	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	286771	10.160	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	119120	10.145	ug/L	90

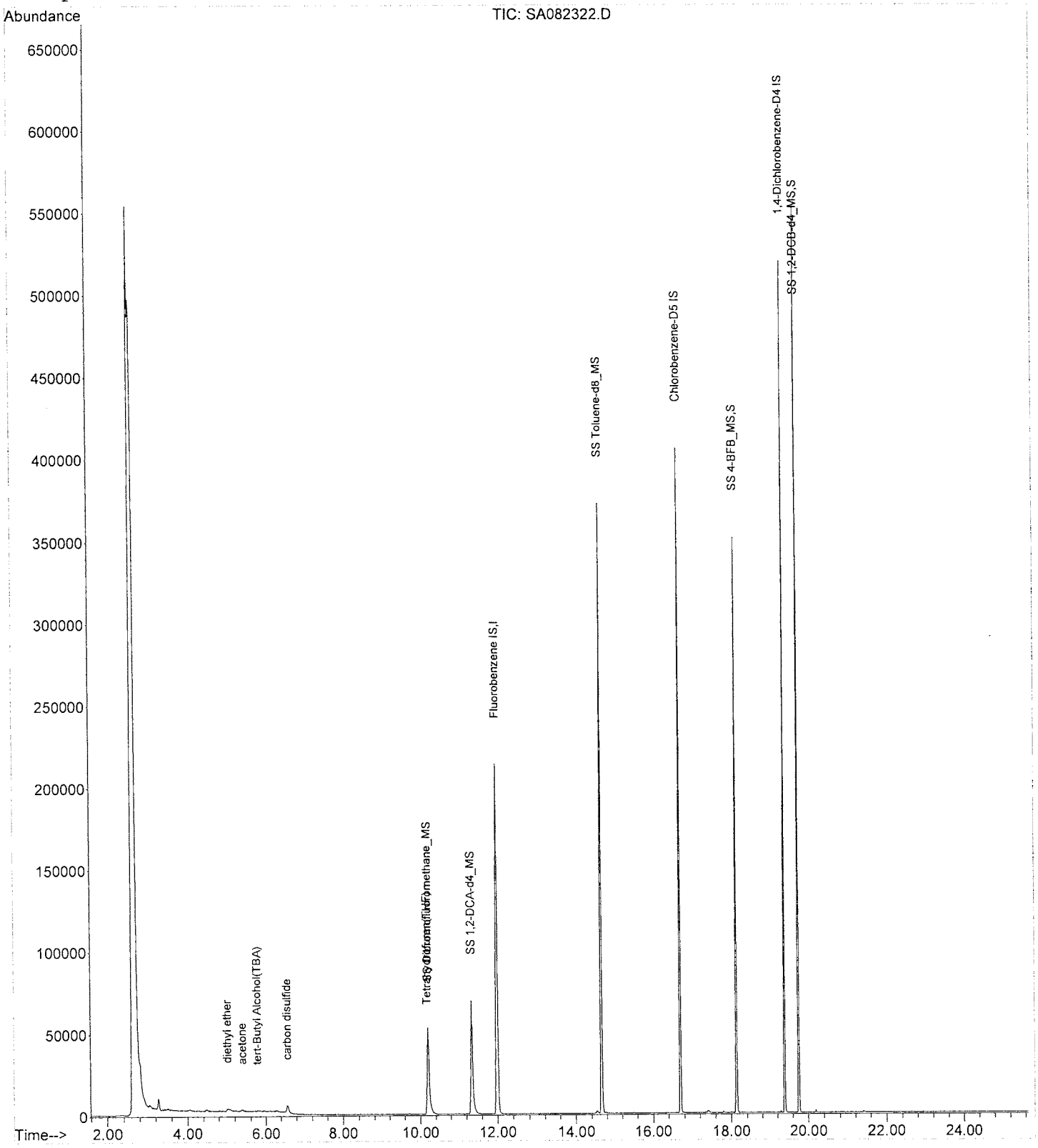
Bien 8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082322.D Vial: 22
Acq On : 23 Aug 2013 7:52 pm Operator: BAM
Sample : 123705.05 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082323.D Vial: 23
Acq On : 23 Aug 2013 8:27 pm Operator: BAM
Sample : 123705.06 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:19 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	280091	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	109062	10.01	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.08%			
78) SS 1,2-DCB-d4_MS	19.75	152	120807	10.38	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.81%			
Target Compounds						Qvalue
8) diethyl ether	5.02	59	1576	0.278	ug/L #	1
10) acetone	5.38	43	2301	1.307	ug/L #	69
12) tert-Butyl Alcohol(TBA)	5.76	59	377	0.623	ug/L #	85
14) carbon disulfide	6.57	76	8870	0.415	ug/L #	82
27) Tetrahydrofuran(THF)	10.18	42	822	0.360	ug/L #	40
29) SS Dibromofluoromethane_MS	10.20	111	64567	9.728	ug/L #	94
33) SS 1,2-DCA-d4_MS	11.33	65	82717	10.292	ug/L	96
43) Chlorobenzene-D5 IS	16.69	117	229183	10.450	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	282241	10.097	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	117741	10.125	ug/L	89

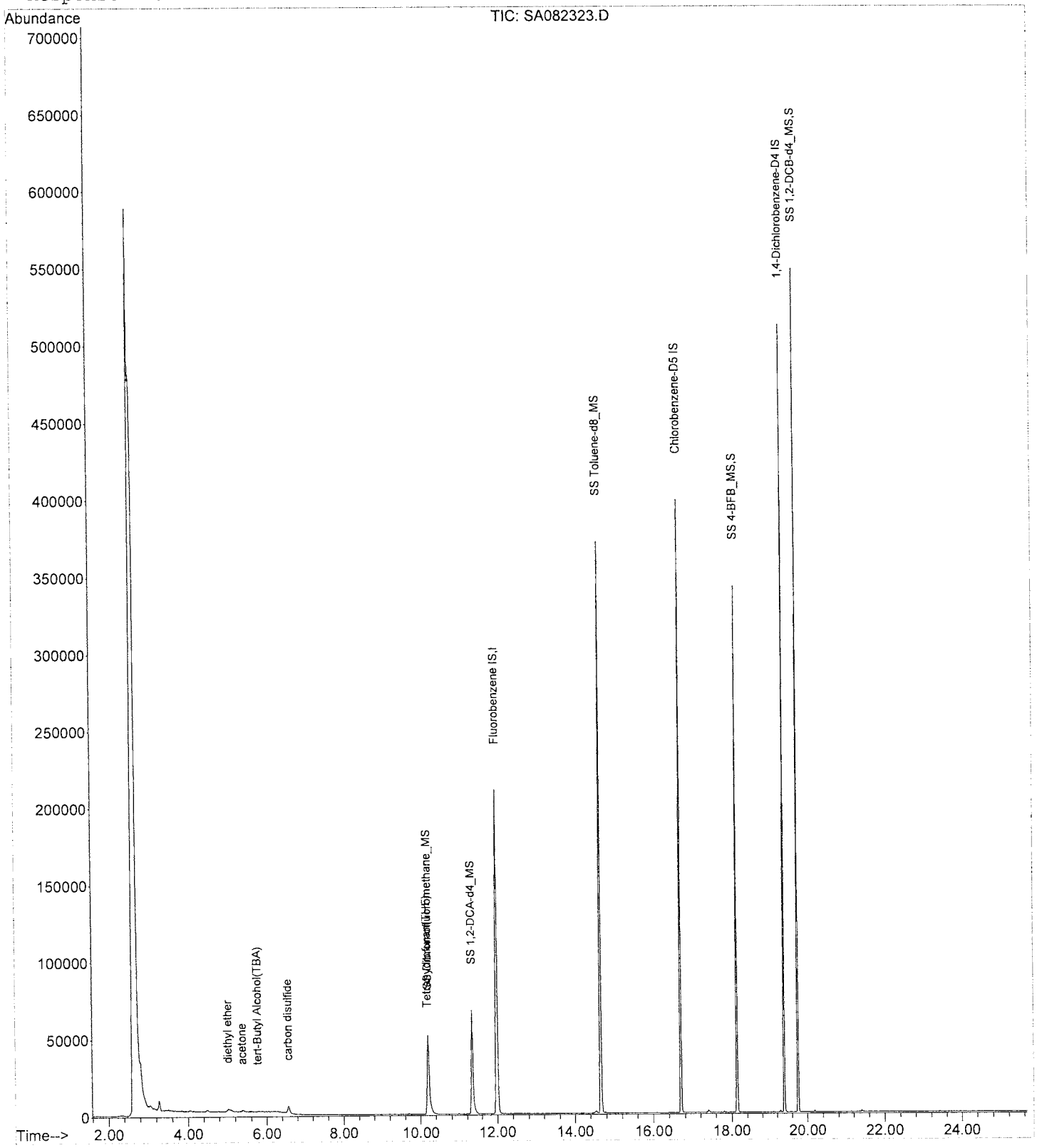
Bcc 8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082323.D 5LID0819.M Mon Aug 26 07:35:20 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082323.D Vial: 23
Acq On : 23 Aug 2013 8:27 pm Operator: BAM
Sample : 123705.06 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082324.D Vial: 24
Acq On : 23 Aug 2013 9:02 pm Operator: BAM
Sample : 123705.07 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:23 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	284643	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	111029	10.03	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.26%			
78) SS 1,2-DCB-d4_MS	19.75	152	121620	10.28	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.84%			
Target Compounds						Qvalue
10) acetone	5.38	43	2376	1.328	ug/L	89
14) carbon disulfide	6.57	76	8851	0.407	ug/L #	84
27) Tetrahydrofuran(THF)	10.16	42	704	0.303	ug/L #	36
29) SS Dibromofluoromethane_MS	10.20	111	66667	9.884	ug/L	95
33) SS 1,2-DCA-d4_MS	11.33	65	83780	10.258	ug/L	96
43) Chlorobenzene-D5 IS	16.69	117	231864	10.403	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	286894	10.099	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	118857	10.058	ug/L	90

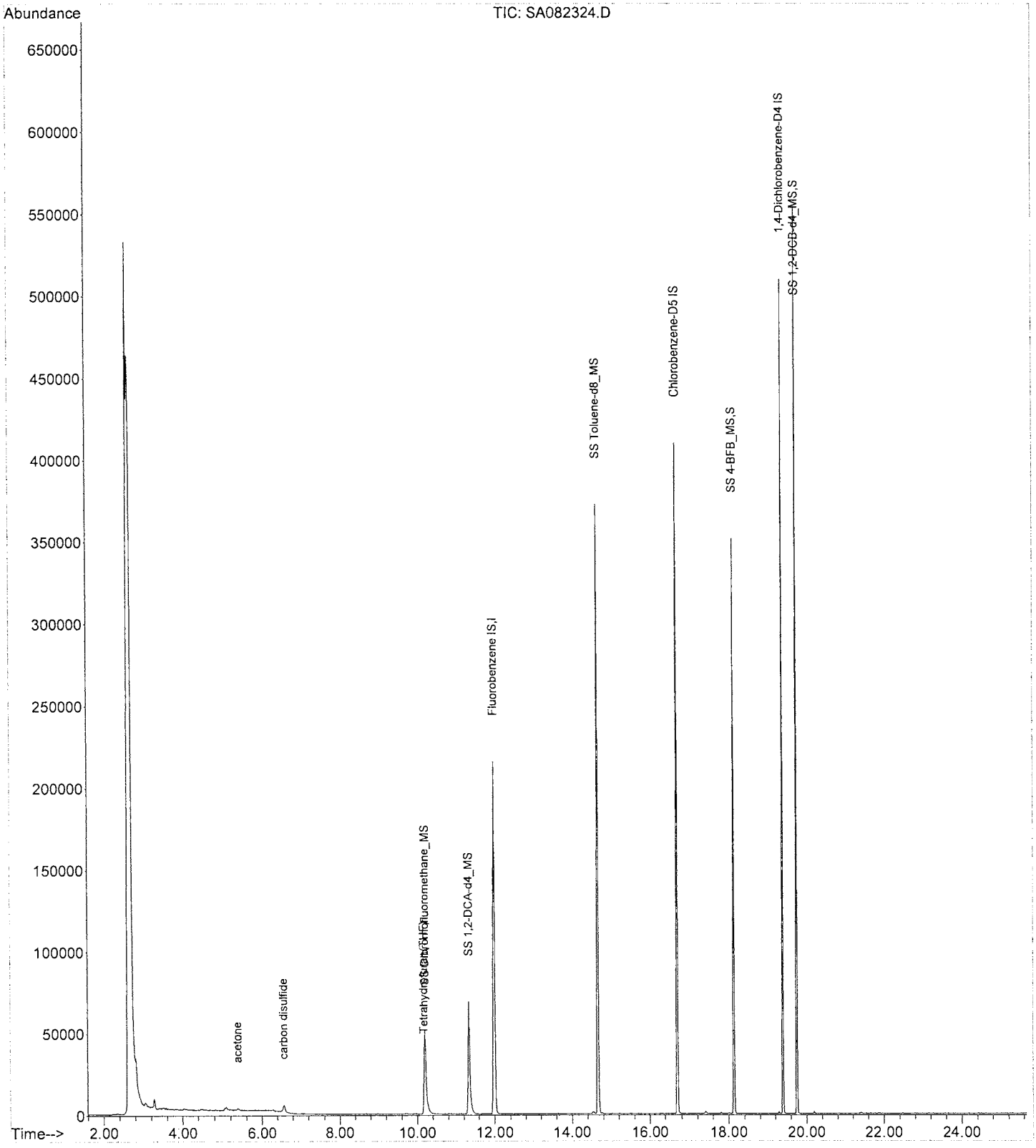
BC 8/20/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082324.D Vial: 24
Acq On : 23 Aug 2013 9:02 pm Operator: BAM
Sample : 123705.07 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082325.D Vial: 25
Acq On : 23 Aug 2013 9:36 pm Operator: BAM
Sample : 123705.08 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:35:27 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	288779	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	112230	9.99	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.89%			
78) SS 1,2-DCB-d4_MS	19.75	152	124734	10.40	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.96%			
Target Compounds						Qvalue
10) acetone	5.39	43	2431	1.339	ug/L #	82
14) carbon disulfide	6.57	76	8514	0.386	ug/L #	87
27) Tetrahydrofuran(THF)	10.16	42	529	0.225	ug/L #	32
29) SS Dibromofluoromethane_MS	10.20	111	67209	9.822	ug/L	94
33) SS 1,2-DCA-d4_MS	11.33	65	84986	10.257	ug/L	96
43) Chlorobenzene-D5 IS	16.69	117	235938	10.434	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	291305	10.107	ug/L #	96
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	121515	10.135	ug/L	89

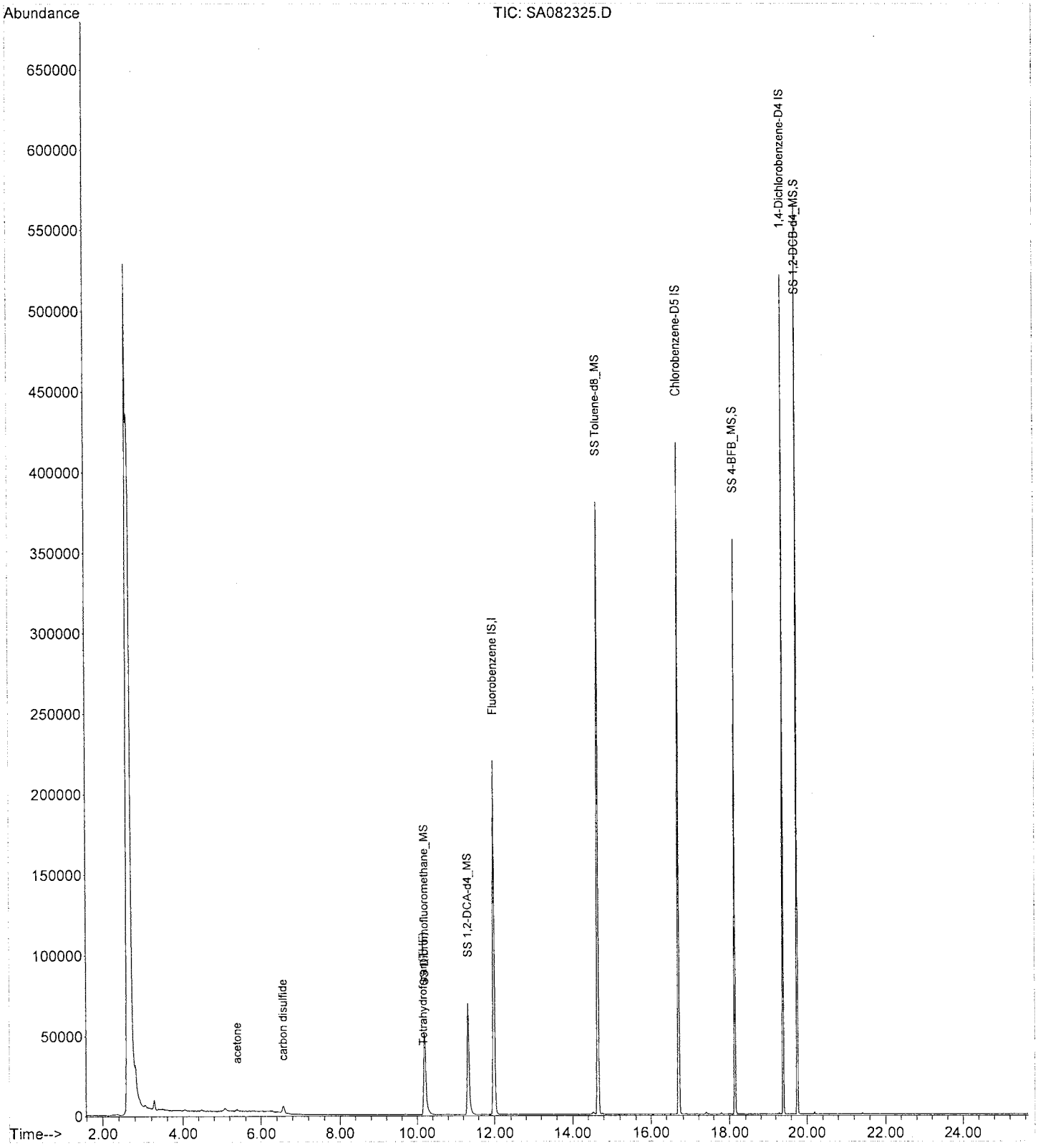
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082325.D Vial: 25
Acq On : 23 Aug 2013 9:36 pm Operator: BAM
Sample : 123705.08 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:35 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082332.D Vial: 32
Acq On : 24 Aug 2013 1:39 am Operator: BAM
Sample : LCS 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:28 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	275313	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	112914	10.54	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.42%			
78) SS 1,2-DCB-d4_MS	19.75	152	123968	10.84	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.38%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	93898	10.449	ug/L	99
3) chloromethane	3.19	50	85354	10.365	ug/L	99
4) vinyl chloride	3.33	62	41810	10.163	ug/L	100
5) bromomethane	3.99	94	33965	8.319	ug/L #	99
6) chloroethane	4.11	64	50938	10.151	ug/L	96
7) trichlorofluoromethane	4.52	101	105105	9.840	ug/L	100
8) diethyl ether	5.02	59	55907	10.044	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	67226	9.168	ug/L	96
10) acetone	5.39	43	20321	11.740	ug/L	99
11) 1,1-dichloroethene	5.61	96	60218	8.658	ug/L	91
12) tert-Butyl Alcohol(TBA)	5.77	59	31578	53.129	ug/L	94
13) methylene chloride	6.55	84	71763	9.319	ug/L	89
14) carbon disulfide	6.57	76	164167	7.814	ug/L	99
15) acrylonitrile	6.81	53	30772	10.004	ug/L	96
16) Methyl-t-butyl ether(MTBE)	6.86	73	192869	9.746	ug/L #	96
17) trans-1,2-dichloroethene	7.14	96	72750	9.908	ug/L	91
19) Isopropyl ether(DIPE)	7.81	45	246768	9.504	ug/L	97
20) vinyl acetate	8.05	43	59905	4.505	ug/L	95
21) 1,1-dichloroethane	8.04	63	137675	10.086	ug/L	98
22) Ethyl-t-butyl ether(ETBE)	8.69	59	213493	9.378	ug/L	96
23) 2,2-dichloropropane	9.24	77	61575	6.004	ug/L	92
24) cis-1,2-dichloroethene	9.35	61	117657	10.963	ug/L	87
25) 2-butanone(MEK)	8.97	43	34067	10.849	ug/L	93
26) bromochloromethane	10.07	128	39892	10.333	ug/L #	87
27) Tetrahydrofuran(THF)	10.16	42	23109	10.296	ug/L	92
28) chloroform	9.71	83	135126	10.190	ug/L	96
29) SS Dibromofluoromethane_MS	10.19	111	66125	10.136	ug/L #	94
30) 1,1,1-trichloroethane	10.59	97	101338	9.298	ug/L	97
31) carbon tetrachloride	11.17	117	82280	9.063	ug/L #	97
32) 1,1-dichloropropene	10.96	75	101630	9.325	ug/L #	88
33) SS 1,2-DCA-d4_MS	11.33	65	80204	10.153	ug/L	95
34) tert-amyl methyl ether(TAM	11.24	73	195962	9.943	ug/L #	53
35) benzene	11.55	78	325135	10.282	ug/L	96
36) 1,2-dichloroethane	11.53	62	107710	9.983	ug/L	99
37) trichloroethene	12.73	95	78896	9.681	ug/L #	94
38) 1,2-dichloropropane	13.05	63	79765	10.212	ug/L	96
39) dibromomethane	13.53	93	46894	10.671	ug/L #	93
40) bromodichloromethane	13.44	83	83190	9.374	ug/L	98
41) 4-methyl-2-pentanone(MIBK)	13.98	58	27555	11.540	ug/L	93
42) cis-1,3-dichloropropene	14.30	75	106063	9.844	ug/L #	88
43) Chlorobenzene-D5 IS	16.69	117	227472	10.552	ug/L #	93
44) SS Toluene-d8_MS	14.65	98	279929	10.188	ug/L #	96
45) toluene	14.77	91	356220	10.290	ug/L #	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082332.D Vial: 32
Acq On : 24 Aug 2013 1:39 am Operator: BAM
Sample : LCS 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:28 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

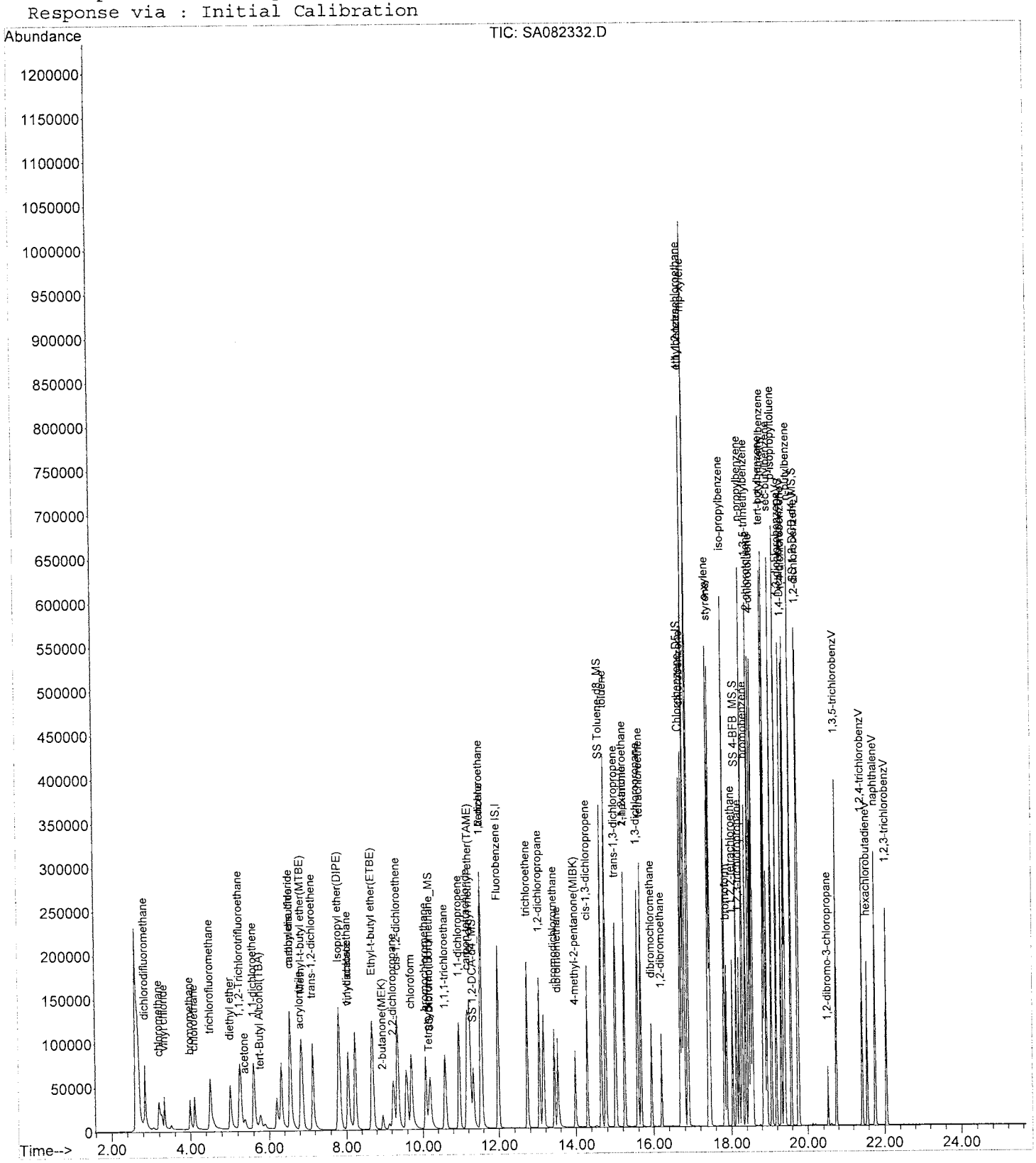
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	trans-1,3-dichloropropene	15.03	75	90926	9.183	ug/L	#	61
47)	1,1,2-trichloroethane	15.25	83	57953	10.959	ug/L		95
48)	2-hexanone	15.25	43	51477	12.225	ug/L		94
49)	tetrachloroethene	15.67	166	93717	10.369	ug/L	#	94
50)	1,3-dichloropropane	15.59	76	123862	10.966	ug/L	#	67
51)	dibromochloromethane	15.95	129	60162	9.797	ug/L	#	100
52)	1,2-dibromoethane	16.22	107	69305	10.568	ug/L	#	100
53)	chlorobenzene	16.74	112	237290	10.135	ug/L	#	96
54)	1,1,1,2-tetrachloroethane	16.78	131	69143	9.831	ug/L		100
55)	ethylbenzene	16.79	91	406688	10.321	ug/L		98
56)	mp-xylene	16.88	106	327723	20.238	ug/L	#	95
57)	o-xylene	17.41	106	155437	10.171	ug/L	#	95
58)	styrene	17.46	104	266296	10.634	ug/L		96
59)	bromoform	17.88	173	33479	11.072	ug/L	#	86
60)	iso-propylbenzene	17.82	105	404171	11.060	ug/L	#	98
62)	1,4-Dichlorobenzene-D4 IS	19.39	152	124077	10.855	ug/L		97
63)	bromobenzene	18.38	156	100691	10.234	ug/L	#	90
64)	1,1,2,2-tetrachloroethane	18.03	83	88405	11.448	ug/L		99
65)	1,2,3-trichloropropane	18.20	110	27187	10.957	ug/L		92
66)	n-propylbenzene	18.28	91	483694	10.451	ug/L		97
67)	2-chlorotoluene	18.51	91	286761	10.056	ug/L		97
68)	4-chlorotoluene	18.56	91	288202	10.019	ug/L		97
69)	1,3,5-trimethylbenzene	18.45	105	334990	10.267	ug/L		98
70)	tert-butylbenzene	18.84	119	301017	10.436	ug/L		97
71)	1,2,4-trimethylbenzene	18.89	105	344320	10.289	ug/L		97
72)	sec-butylbenzene	19.06	105	423186	10.425	ug/L		98
73)	1,3-dichlorobenzeneV	19.32	146	194173	10.192	ug/L		96
74)	p-isopropyltoluene	19.18	119	361669	10.469	ug/L		97
75)	1,4-dichlorobenzeneV	19.42	146	195667m	10.236	ug/L		
76)	1,2-dichlorobenzeneV	19.77	146	182676	10.297	ug/L	#	93
77)	n-butylbenzene	19.58	91	297876	10.236	ug/L		98
79)	1,2-dibromo-3-chloropropan	20.52	157	14772	9.872	ug/L		94
80)	1,3,5-trichlorobenzV	20.75	180	115128	10.657	ug/L	#	92
81)	1,2,4-trichlorobenzV	21.44	180	94688	10.474	ug/L	#	92
82)	hexachlorobutadieneV	21.56	225	34932	8.670	ug/L	#	92
83)	naphthaleneV	21.76	128	257582	11.398	ug/L		99
84)	1,2,3-trichlorobenzV	22.05	180	83097	10.713	ug/L	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082332.D Vial: 32
Acq On : 24 Aug 2013 1:39 am Operator: BAM
Sample : LCS 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 9:13 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082333.D Vial: 33
Acq On : 24 Aug 2013 2:14 am Operator: BAM
Sample : LCSD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:31 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	287298	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	117718	10.53	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.32%			
78) SS 1,2-DCB-d4_MS	19.75	152	129274	10.83	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.30%			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	94100	10.035	ug/L	99
3) chloromethane	3.19	50	83659	9.735	ug/L	100
4) vinyl chloride	3.33	62	41413	9.646	ug/L	99
5) bromomethane	3.99	94	39104	9.178	ug/L	99
6) chloroethane	4.10	64	50296	9.604	ug/L	95
7) trichlorofluoromethane	4.52	101	102477	9.194	ug/L	99
8) diethyl ether	5.02	59	57327	9.869	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	67841	8.866	ug/L	95
10) acetone	5.38	43	20522	11.362	ug/L	99
11) 1,1-dichloroethene	5.61	96	59908	8.255	ug/L	90
12) tert-Butyl Alcohol(TBA)	5.78	59	31957	51.523	ug/L	89
13) methylene chloride	6.54	84	72501	9.022	ug/L	89
14) carbon disulfide	6.57	76	164990	7.525	ug/L	99
15) acrylonitrile	6.82	53	30612	9.537	ug/L	94
16) Methyl-t-butyl ether(MTBE)	6.85	73	195294	9.457	ug/L #	97
17) trans-1,2-dichloroethene	7.14	96	72978	9.525	ug/L	92
19) Isopropyl ether(DIPE)	7.81	45	249496	9.208	ug/L	96
20) vinyl acetate	8.05	43	60230	4.340	ug/L	95
21) 1,1-dichloroethane	8.04	63	136317	9.570	ug/L	99
22) Ethyl-t-butyl ether(ETBE)	8.69	59	216220	9.101	ug/L	96
23) 2,2-dichloropropane	9.24	77	61308	5.728	ug/L	94
24) cis-1,2-dichloroethene	9.35	61	116697	10.419	ug/L	88
25) 2-butanone(MEK)	8.97	43	35043	10.695	ug/L	92
26) bromochloromethane	10.08	128	40618	10.082	ug/L #	88
27) Tetrahydrofuran(THF)	10.16	42	23610	10.081	ug/L	91
28) chloroform	9.70	83	134144	9.694	ug/L	96
29) SS Dibromofluoromethane_MS	10.19	111	69587	10.221	ug/L	96
30) 1,1,1-trichloroethane	10.59	97	102353	9.000	ug/L	97
31) carbon tetrachloride	11.17	117	83777	8.842	ug/L #	97
32) 1,1-dichloropropene	10.95	75	101487	8.924	ug/L #	89
33) SS 1,2-DCA-d4_MS	11.33	65	83809	10.167	ug/L	95
34) tert-amyl methyl ether(TAM	11.24	73	197578	9.607	ug/L #	52
35) benzene	11.54	78	328782	9.964	ug/L	97
36) 1,2-dichloroethane	11.53	62	108501	9.637	ug/L	98
37) trichloroethene	12.72	95	78368	9.215	ug/L #	94
38) 1,2-dichloropropane	13.04	63	80200	9.839	ug/L	96
39) dibromomethane	13.53	93	47507	10.360	ug/L	92
40) bromodichloromethane	13.44	83	84429	9.117	ug/L	98
41) 4-methyl-2-pentanone(MIBK)	13.99	58	28046	11.256	ug/L	93
42) cis-1,3-dichloropropene	14.30	75	107352	9.548	ug/L #	89
43) Chlorobenzene-D5 IS	16.69	117	239130	10.630	ug/L #	94
44) SS Toluene-d8_MS	14.65	98	294864	10.284	ug/L #	97
45) toluene	14.77	91	356105	9.858	ug/L #	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082333.D Vial: 33
Acq On : 24 Aug 2013 2:14 am Operator: BAM
Sample : LCSD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:55:31 2013 Quant Results File: 5LID0819.RES

Quant Method : C:\MSDCHEM\1...\5LID0819.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Tue Aug 20 15:47:52 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

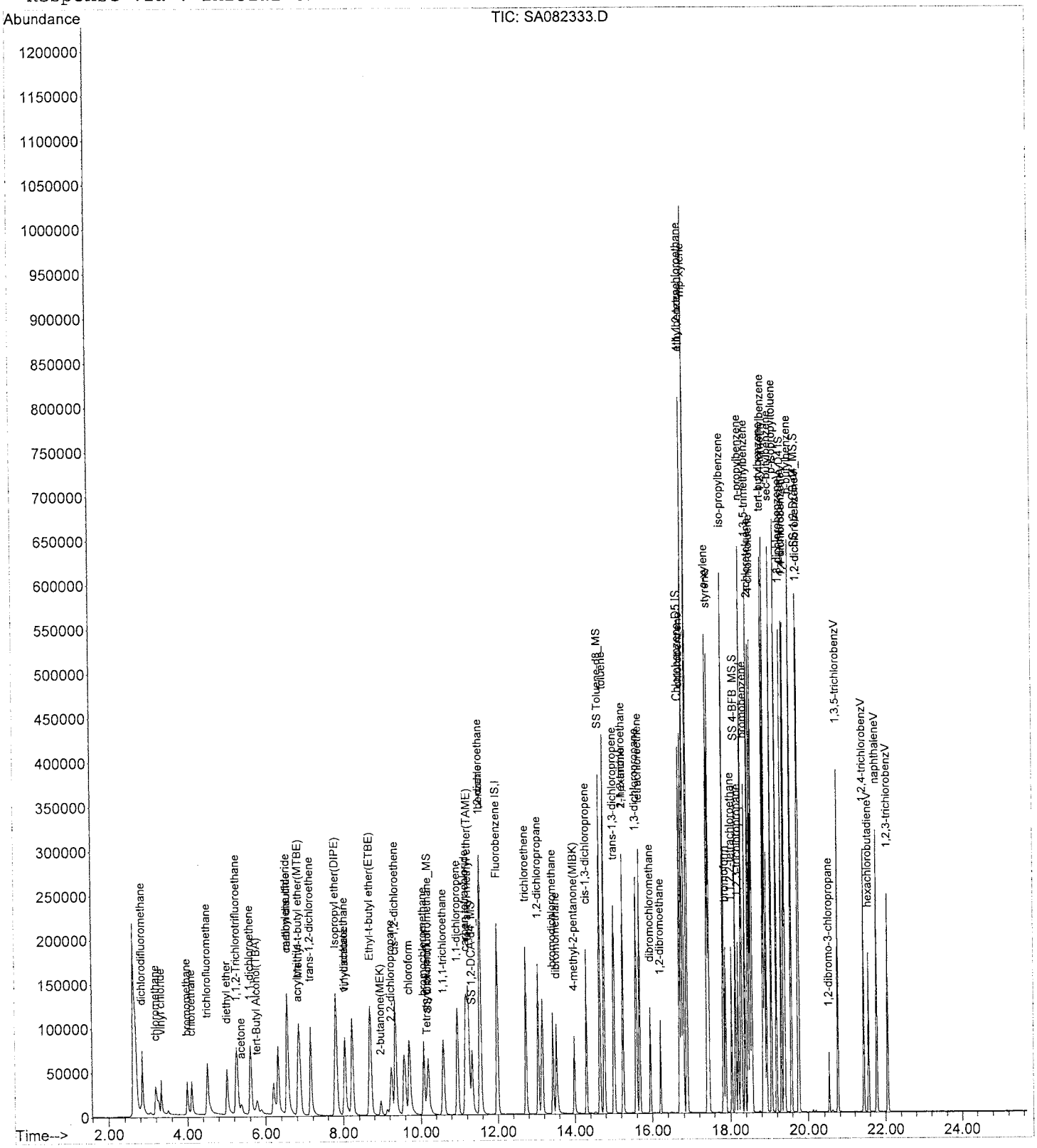
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	trans-1,3-dichloropropene	15.03	75	91000	8.807	ug/L	#	60
47)	1,1,2-trichloroethane	15.25	83	57875	10.487	ug/L		95
48)	2-hexanone	15.25	43	52524	11.953	ug/L		94
49)	tetrachloroethene	15.67	166	93866	9.952	ug/L	#	94
50)	1,3-dichloropropane	15.59	76	123654	10.491	ug/L	#	67
51)	dibromochloromethane	15.95	129	62561	9.763	ug/L	#	99
52)	1,2-dibromoethane	16.22	107	70450	10.295	ug/L	#	99
53)	chlorobenzene	16.74	112	238219	9.751	ug/L	#	94
54)	1,1,1,2-tetrachloroethane	16.78	131	69372	9.452	ug/L		99
55)	ethylbenzene	16.79	91	404569	9.839	ug/L		98
56)	mp-xylene	16.88	106	325369	19.254	ug/L	#	95
57)	o-xylene	17.41	106	155708	9.764	ug/L	#	96
58)	styrene	17.46	104	266924	10.214	ug/L		96
59)	bromoform	17.88	173	34874	11.052	ug/L	#	86
60)	iso-propylbenzene	17.82	105	404071	10.596	ug/L	#	98
62)	1,4-Dichlorobenzene-D4 IS	19.39	152	129057	10.820	ug/L		97
63)	bromobenzene	18.38	156	101032	9.840	ug/L	#	90
64)	1,1,2,2-tetrachloroethane	18.03	83	88280	10.955	ug/L		99
65)	1,2,3-trichloropropane	18.20	110	27587	10.655	ug/L		94
66)	n-propylbenzene	18.28	91	479817	9.935	ug/L		98
67)	2-chlorotoluene	18.51	91	285351	9.589	ug/L		97
68)	4-chlorotoluene	18.56	91	287621	9.581	ug/L		97
69)	1,3,5-trimethylbenzene	18.45	105	332949	9.779	ug/L		98
70)	tert-butylbenzene	18.84	119	292092	9.704	ug/L		96
71)	1,2,4-trimethylbenzene	18.89	105	340592	9.753	ug/L		98
72)	sec-butylbenzene	19.06	105	414047	9.775	ug/L		98
73)	1,3-dichlorobenzeneV	19.32	146	193281	9.722	ug/L		96
74)	p-isopropyltoluene	19.18	119	356853	9.899	ug/L		97
75)	1,4-dichlorobenzeneV	19.42	146	196158m	9.833	ug/L		
76)	1,2-dichlorobenzeneV	19.78	146	183215	9.897	ug/L	#	93
77)	n-butylbenzene	19.58	91	294950	9.712	ug/L		98
79)	1,2-dibromo-3-chloropropan	20.52	157	14569	9.399	ug/L	#	91
80)	1,3,5-trichlorobenzV	20.75	180	115890	10.280	ug/L	#	93
81)	1,2,4-trichlorobenzV	21.44	180	94733	10.042	ug/L	#	93
82)	hexachlorobutadieneV	21.56	225	35165	8.364	ug/L	#	92
83)	naphthaleneV	21.76	128	261444	11.087	ug/L		99
84)	1,2,3-trichlorobenzV	22.05	180	84377	10.424	ug/L	#	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082333.D Vial: 33
Acq On : 24 Aug 2013 2:14 am Operator: BAM
Sample : LCSD 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 9:13 2013 Quant Results File: 5LID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
Professional laboratory & drilling services

123705
VOC 8260B
Initial Calibration

IS/SS ID= V- 4089
Standard ID= V- 4091 A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- ~~4092 (New G)~~ 4085 (L) 4084 (G)

Analyst: Blue

Date: ~~8/19/26~~ 8/19/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA081901	BFB25ng					VOCMS	5L1D0819			
2		0.2					VOCMS	5V1D0819	Used for BFB - Auto Find		✓
3		0.5					VOCMS				
4		1					VOCMS				
5		BFB25ng					VOCMS		Average entire peak		✓
6		2					VOCMS				
7		5					VOCMS				
8		10					VOCMS				
9		20					VOCMS				
10		50					VOCMS				
11		50G					VOCMS				
12		100					VOCMS				
13		100G					VOCMS				
14		200					VOCMS				
15		200G					VOCMS				
16		300					VOCMS				
17		300G					VOCMS				
18		400G					VOCMS				
19		600G					VOCMS				
20		Blank					VOCMS				
21							VOCMS				
22							VOCMS				
23		LCS20					VOCMS				
							VOCMS				
							VOCMS				
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Samples removed from autosampler, order and pH verified by N/A Blue 8/20/13 1-23

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD
1)	Fluorobenzene IS																			
2)	dichlorodifluoromethane	NA	NA	0.380	0.322	0.329	0.315	0.294	NA	0.316	NA	0.322	NA	0.304	NA	0.286	NA	NA	0.319	8.388 ok
3) P	chloromethane	NA	NA	0.358	0.306	0.300	0.278	0.260	NA	0.275	NA	0.270	NA	0.261	NA	0.250	NA	NA	0.284	11.707 ok
4) C	vinyl chloride	0.201	0.162	0.175	0.151	0.144	0.135	0.122	NA	0.132	NA	0.123	NA	NA	NA	NA	NA	NA	0.149	17.498 #
5)	bromomethane	NA	NA	0.150	0.126	0.127	0.139	0.142	NA	0.168	NA	0.179	NA	0.174	NA	0.162	NA	NA	0.152	13.081 ok
6)	chloroethane	NA	NA	0.208	0.182	0.183	0.174	0.165	NA	0.180	NA	0.174	NA	0.163	NA	0.148	NA	NA	0.175	9.504 ok
7)	trichlorofluoromethane	NA	NA	0.440	0.377	0.390	0.375	0.357	NA	0.385	NA	0.378	NA	0.353	NA	0.326	NA	NA	0.376	8.269 ok
8)	diethyl ether	NA	NA	0.230	0.199	0.204	0.197	0.187	NA	0.200	NA	0.198	NA	0.184	NA	0.172	NA	NA	0.197	8.095 ok
9)	1,1,2-Trichlorotrifluoroethane	NA	NA	0.315	0.268	0.265	0.255	0.246	NA	0.262	NA	0.258	NA	0.242	NA	0.220	NA	NA	0.259	9.937 ok
10)	acrolein	NA	NA	NA	NA	0.025	0.022	0.021	NA	0.020	NA	0.020	NA	0.019	NA	0.018	NA	NA	0.021	10.811 ok
11)	acetone	NA	NA	NA	0.073	0.064	0.062	0.058	NA	0.060	NA	0.060	NA	0.056	NA	0.053	NA	NA	0.061	9.970 ok
12) C	1,1-dichloroethene	0.328	0.260	0.257	0.249	0.229	0.239	0.243	0.241	NA	0.226	NA	0.232	NA	0.217	NA	NA	NA	0.247	12.059 ok
13)	tert-Butyl Alcohol(TBA)	NA	NA	0.024	0.023	0.021	0.021	0.021	0.021	NA	0.020	NA	0.021	NA	0.020	NA	NA	NA	0.021	7.080 ok
14)	Iodomethane	NA	NA	0.169	0.163	0.223	0.260	0.277	NA	0.350	NA	0.360	NA	0.350	NA	0.325	NA	NA	0.275	28.075 #
15)	methylene chloride	NA	NA	0.293	0.307	0.267	0.266	0.266	0.260	NA	0.240	NA	0.239	NA	0.219	NA	NA	NA	0.262	10.345 ok
16)	carbon disulfide	NA	NA	0.962	0.812	0.697	0.710	0.726	0.732	NA	0.702	NA	0.706	NA	0.645	NA	NA	NA	0.744	12.483 ok
17)	acrylonitrile	NA	NA	0.132	0.112	0.111	0.110	0.103	NA	0.106	NA	0.105	NA	0.101	NA	0.096	NA	NA	0.108	9.409 ok
18)	Methyl-t-butyl ether(MTBE)	0.895	0.724	0.760	0.692	0.675	0.685	0.665	NA	0.689	NA	0.684	NA	0.667	NA	0.625	0.617	0.588	0.690	11.060 ok
19)	trans-1,2-dichloroethene	NA	NA	0.265	0.274	0.255	0.266	0.272	0.275	NA	0.260	NA	0.271	NA	0.261	NA	NA	NA	0.267	2.532 ok
20)	hexane	NA	NA	0.479	0.410	0.418	0.393	0.391	NA	0.420	NA	0.426	NA	0.400	NA	0.374	NA	NA	0.413	7.280 ok
21)	Isopropyl ether(DIPE)	NA	NA	0.950	0.957	0.895	0.928	0.944	0.958	NA	0.897	NA	0.923	NA	0.874	NA	NA	NA	0.925	3.299 ok
22)	vinyl acetate	NA	NA	0.533	0.456	0.453	0.431	0.472	NA	0.520	NA	0.531	NA	0.496	NA	0.378	NA	NA	0.475	10.826 ok
23) P	1,1-dichloroethane	NA	NA	0.506	0.498	0.471	0.494	0.503	0.503	NA	0.476	NA	0.493	NA	0.477	NA	NA	NA	0.491	2.711 ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
24)	Ethyl-t-butyl ether(ETBE)	NA	NA	0.838	0.836	0.786	0.817	0.827	0.843	NA	0.793	NA	0.823	NA	0.792	NA	NA	NA	0.817	2.656	ok
25)	2,2-dichloropropane	NA	NA	0.359	0.373	0.354	0.362	0.392	0.395	NA	0.362	NA	0.390	NA	0.360	NA	NA	NA	0.372	4.330	ok
26)	cis-1,2-dichloroethene	NA	NA	0.370	0.400	0.379	0.386	0.396	0.398	NA	0.374	NA	0.386	NA	0.369	NA	NA	NA	0.384	3.153	ok
27)	2-butanone(MEK)	NA	NA	0.141	0.119	0.111	0.107	0.100	NA	0.110	NA	0.110	NA	0.106	NA	0.103	NA	NA	0.112	10.926	ok
28)	bromochloromethane	NA	NA	0.140	0.143	0.133	0.141	0.141	0.146	NA	0.139	NA	0.146	NA	0.141	NA	NA	NA	0.141	2.824	ok
29)	Tetrahydrofuran(THF)	NA	NA	NA	0.087	0.079	0.075	0.070	NA	0.075	NA	0.075	NA	0.073	NA	0.070	NA	NA	0.075	7.386	ok
30) C	chloroform	NA	NA	0.499	0.487	0.454	0.473	0.479	0.483	NA	0.457	NA	0.476	NA	0.460	NA	NA	NA	0.474	3.170	ok
31)	SS Dibromofluoromethane_MS	0.232	0.234	0.236	0.236	0.238	0.239	0.239	0.239	0.236	0.241	0.237	0.236	0.236	0.240	0.231	0.232	0.224	0.236	1.748	ok
32)	1,1,1-trichloroethane	NA	NA	0.389	0.397	0.377	0.392	0.406	0.413	NA	0.392	NA	0.411	NA	0.391	NA	NA	NA	0.396	2.964	ok
33)	carbon tetrachloride	NA	NA	0.314	0.312	0.301	0.330	0.350	0.367	NA	0.353	NA	0.372	NA	0.353	NA	NA	NA	0.339	7.584	ok
34)	1,1-dichloropropene	NA	NA	0.403	0.403	0.374	0.388	0.399	0.401	NA	0.380	NA	0.394	NA	0.372	NA	NA	NA	0.391	3.194	ok
35)	SS 1,2-DCA-d4_MS	0.291	0.293	0.295	0.294	0.293	0.290	0.281	0.274	0.290	0.266	0.289	0.259	0.283	0.255	0.276	0.279	0.274	0.281	4.428	ok
36)	tert-amyl methyl ether(TAME)	NA	NA	0.718	0.710	0.677	0.706	0.719	0.744	NA	0.709	NA	0.748	NA	0.726	NA	NA	NA	0.717	2.970	ok
37)	benzene	NA	NA	1.171	1.176	1.101	1.132	1.151	1.161	NA	1.088	NA	1.096	NA	0.995	NA	NA	NA	1.119	5.096	ok
38)	1,2-dichloroethane	NA	NA	0.403	0.411	0.382	0.392	0.392	0.390	NA	0.359	NA	0.354	NA	0.324	NA	NA	NA	0.378	7.316	ok
39)	trichloroethene	0.381	0.317	0.301	0.294	0.282	0.294	0.294	0.300	NA	0.286	NA	0.295	NA	0.281	NA	NA	NA	0.302	9.199	ok
40) C	1,2-dichloropropane	NA	NA	0.278	0.281	0.271	0.280	0.288	0.293	NA	0.278	NA	0.290	NA	0.276	NA	NA	NA	0.282	2.551	ok
41)	1,4-dioxaneV	NA	NA	NA	NA	0.003	0.003	0.003	NA	0.003	NA	0.003	NA	0.003	NA	0.003	0.003	0.003	0.003	5.838	ok
42)	dibromomethane	NA	NA	0.158	0.162	0.151	0.158	0.161	0.167	NA	0.160	NA	0.166	NA	0.158	NA	NA	NA	0.160	2.910	ok
43)	bromodichloromethane	0.403	0.308	0.296	0.302	0.296	0.325	0.342	0.363	NA	0.348	NA	0.366	NA	0.352	NA	NA	NA	0.336	10.244	ok
44)	2-Chloroethoxyethene	NA	NA	0.022	0.013	0.019	0.019	0.027	NA	0.041	NA	0.061	NA	0.081	NA	0.089	NA	NA	0.041	69.330	#
45)	4-methyl-2-pentanone(MIBK)	NA	NA	0.095	0.080	0.084	0.086	0.082	NA	0.092	NA	0.094	NA	0.091	NA	0.089	NA	NA	0.088	5.866	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
46)	cis-1,3-dichloropropene	0.460	0.374	0.359	0.367	0.362	0.394	0.418	0.438	NA	0.419	NA	0.441	NA	0.418	NA	NA	NA	0.404	8.694	ok
47)	Chlorobenzene-D5 IS																				
48)	SS Toluene-d8_MS	1.289	1.271	1.281	1.276	1.265	1.270	1.272	1.257	1.284	1.269	1.287	1.254	1.268	1.247	1.268	1.258	1.252	1.269	0.971	ok
49) C	toluene	NA	NA	1.644	1.637	1.524	1.591	1.610	1.619	NA	1.492	NA	1.446	NA	1.254	NA	NA	NA	1.535	8.202	ok
50)	trans-1,3-dichloropropene	0.547	0.412	0.418	0.415	0.418	0.467	0.498	0.530	NA	0.502	NA	0.521	NA	0.477	NA	NA	NA	0.473	10.709	ok
51)	1,1,2-trichloroethane	NA	NA	0.248	0.244	0.233	0.245	0.245	0.252	NA	0.238	NA	0.248	NA	0.230	NA	NA	NA	0.242	3.010	ok
52)	2-hexanone	NA	NA	0.220	0.183	0.194	0.193	0.182	NA	0.201	NA	0.201	NA	0.195	NA	0.186	NA	NA	0.195	6.012	ok
53)	tetrachloroethene	0.531	0.419	0.434	0.428	0.399	0.414	0.418	0.427	NA	0.405	NA	0.408	NA	0.368	NA	NA	NA	0.423	9.501	ok
54)	1,3-dichloropropane	0.722	0.532	0.530	0.530	0.498	0.526	0.526	0.535	NA	0.500	NA	0.514	NA	0.469	NA	NA	NA	0.535	12.201	ok
55)	dibromochloromethane	NA	NA	0.236	0.242	0.254	0.289	0.317	0.348	NA	0.341	NA	0.361	NA	0.337	NA	NA	NA	0.303	16.103	#
56)	1,2-dibromoethane	NA	NA	0.297	0.297	0.286	0.306	0.311	0.324	NA	0.308	NA	0.318	NA	0.299	NA	NA	NA	0.305	3.811	ok
57) P	chlorobenzene	NA	NA	1.105	1.102	1.036	1.074	1.096	1.101	NA	1.019	NA	0.996	NA	0.866	NA	NA	NA	1.044	7.465	ok
58)	1,1,1,2-tetrachloroethane	NA	NA	0.305	0.303	0.302	0.336	0.351	0.364	NA	0.337	NA	0.307	NA	0.256	NA	NA	NA	0.318	10.272	ok
59) C	ethylbenzene	NA	NA	1.877	1.868	1.750	1.833	1.860	1.848	NA	1.647	NA	1.395	NA	NA	NA	NA	NA	1.760	9.477	ok
60)	mp-xylene	0.953	0.754	0.742	0.742	0.706	0.738	0.747	0.740	NA	0.640	NA	0.515	NA	NA	NA	NA	NA	0.728	14.899	ok
61)	o-xylene	NA	NA	0.700	0.721	0.669	0.713	0.725	0.734	NA	0.673	NA	0.638	NA	0.542	NA	NA	NA	0.679	8.882	ok
62)	styrene	NA	NA	1.115	1.151	1.109	1.184	1.221	1.232	NA	1.133	NA	1.049	NA	0.884	NA	NA	NA	1.120	9.404	ok
63) P	bromoform	NA	NA	0.122	0.122	0.132	0.159	0.183	0.214	NA	0.215	NA	0.232	NA	0.215	NA	NA	NA	0.177	24.884	#
64)	iso-propylbenzene	NA	NA	1.668	1.719	1.621	1.709	1.749	1.749	NA	1.590	NA	1.455	NA	1.218	NA	NA	NA	1.609	10.808	ok
65)	SS 4-BFB_MS	0.496	0.492	0.498	0.494	0.499	0.500	0.501	0.499	0.495	0.500	0.491	0.491	0.493	0.495	0.501	0.501	0.497	0.497	0.720	ok
66)	1,4-Dichlorobenzene-D4 IS																				
67)	bromobenzene	NA	NA	0.862	0.865	0.806	0.847	0.860	0.871	NA	0.821	NA	0.821	NA	0.750	NA	NA	NA	0.834	4.692	ok

(#) = Out of Range

Response Factor Report VOAMS3

Method : 5VID0819.M
Title : VOAMS5
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration

Calibration Files

0.2	=	SA081902.D	0.5	=	SA081903.D	1	=	SA081904.D	2	=	SA081906.D
5	=	SA081907.D	10	=	SA081908.D	20	=	SA081909.D	50	=	SA081910.D
50G	=	SA081911.D	100	=	SA081912.D	100G	=	SA081913.D	200	=	SA081914.D
200G	=	SA081915.D	300	=	SA081916.D	300G	=	SA081917.D	400G	=	SA081918.D
600G	=	SA081919.D									

	Compound	0.2	0.5	1	2	5	10	20	50	50G	100	100G	200	200G	300	300G	400G	600G	AVG	%RSD	
68) P	1,1,2,2-tetrachloroethane	NA	NA	0.652	0.664	0.627	0.661	0.693	0.711	NA	0.666	NA	0.686	NA	0.625	NA	NA	NA	0.665	4.303	ok
69)	1,2,3-trichloropropane	NA	NA	0.224	0.218	0.204	0.213	0.214	0.221	NA	0.207	NA	0.212	NA	0.197	NA	NA	NA	0.212	4.052	ok
70)	trans-1,4-dichloro-2-butene	NA	NA	0.096	0.100	0.100	0.118	0.136	0.151	NA	0.151	NA	0.162	NA	0.150	NA	NA	NA	0.129	20.297	#
71)	n-propylbenzene	NA	NA	4.020	4.143	3.881	4.006	4.112	4.062	NA	3.702	NA	3.288	NA	2.706	NA	NA	NA	3.769	12.728	ok
72)	2-chlorotoluene	NA	NA	2.526	2.563	2.390	2.437	2.480	2.440	NA	2.294	NA	2.095	NA	1.864	NA	NA	NA	2.343	9.720	ok
73)	4-chlorotoluene	NA	NA	2.569	2.586	2.424	2.490	2.528	2.503	NA	2.221	NA	2.086	NA	1.736	NA	NA	NA	2.349	12.101	ok
74)	1,3,5-trimethylbenzene	NA	NA	2.836	2.900	2.735	2.850	2.895	2.894	NA	2.646	NA	2.386	NA	2.001	NA	NA	NA	2.682	11.373	ok
75)	tert-butylbenzene	NA	NA	2.520	2.592	2.414	2.510	2.559	2.538	NA	2.315	NA	2.157	NA	1.820	NA	NA	NA	2.381	10.582	ok
76)	1,2,4-trimethylbenzene	NA	NA	2.926	2.958	2.833	2.944	2.981	2.964	NA	2.669	NA	2.366	NA	1.964	NA	NA	NA	2.734	12.853	ok
77)	sec-butylbenzene	NA	NA	3.526	3.629	3.399	3.547	3.614	3.615	NA	3.268	NA	2.861	NA	2.346	NA	NA	NA	3.312	13.205	ok
78)	1,3-dichlorobenzeneV	NA	NA	1.646	1.696	1.572	1.642	1.681	1.692	NA	1.570	NA	1.458	NA	1.245	NA	NA	NA	1.578	9.274	ok
79)	p-isopropyltoluene	NA	NA	2.949	3.015	2.895	3.052	3.140	3.122	NA	2.803	NA	2.453	NA	2.015	NA	NA	NA	2.827	13.062	ok
80)	1,4-dichlorobenzeneV	NA	NA	1.655	1.695	1.575	1.633	1.672	1.688	NA	1.566	NA	1.454	NA	1.230	NA	NA	NA	1.574	9.536	ok
81)	1,2-dichlorobenzeneV	NA	NA	1.538	1.582	1.463	1.517	1.554	1.575	NA	1.460	NA	1.371	NA	1.177	NA	NA	NA	1.471	8.788	ok
82)	n-butylbenzene	NA	NA	2.440	2.547	2.443	2.579	2.671	2.665	NA	2.409	NA	2.136	NA	1.748	NA	NA	NA	2.404	12.262	ok
83)	SS 1,2-DCB-d4_MS	1.004	0.999	1.000	0.993	1.002	0.992	1.002	1.000	1.003	1.011	1.001	0.995	0.997	0.979	0.991	1.000	1.002	0.998	0.699	ok
84)	1,2-dibromo-3-chloropropane	NA	NA	0.091	0.094	0.095	0.114	0.125	0.143	NA	0.142	NA	0.149	NA	0.143	NA	NA	NA	0.122	19.514	#
85)	1,3,5-trichlorobenzV	NA	NA	0.917	0.922	0.874	0.929	0.966	0.998	NA	0.955	NA	0.949	NA	0.850	NA	NA	NA	0.929	4.939	ok
86)	1,2,4-trichlorobenzV	NA	NA	0.740	0.763	0.721	0.786	0.808	0.852	NA	0.815	NA	0.828	NA	0.765	NA	NA	NA	0.786	5.470	ok
87)	hexachlorobutadieneV	0.453	0.336	0.325	0.334	0.308	0.335	0.351	0.365	NA	0.353	NA	0.371	NA	0.345	NA	NA	NA	0.352	10.764	ok
88)	naphthaleneV	NA	NA	1.784	1.830	1.828	2.015	2.094	2.226	NA	2.103	NA	2.089	NA	1.889	NA	NA	NA	1.984	7.844	ok
89)	1,2,3-trichlorobenzV	NA	NA	0.649	0.651	0.626	0.665	0.694	0.728	NA	0.698	NA	0.716	NA	0.675	NA	NA	NA	0.678	4.937	ok
90)	SS 2,5-DBT_MS	NA	NA	0.132	0.142	0.158	0.184	0.203	0.232	NA	0.230	NA	0.251	NA	0.250	NA	NA	NA	0.198	23.351	#

(#) = Out of Range

Compound List Report VOAMS5

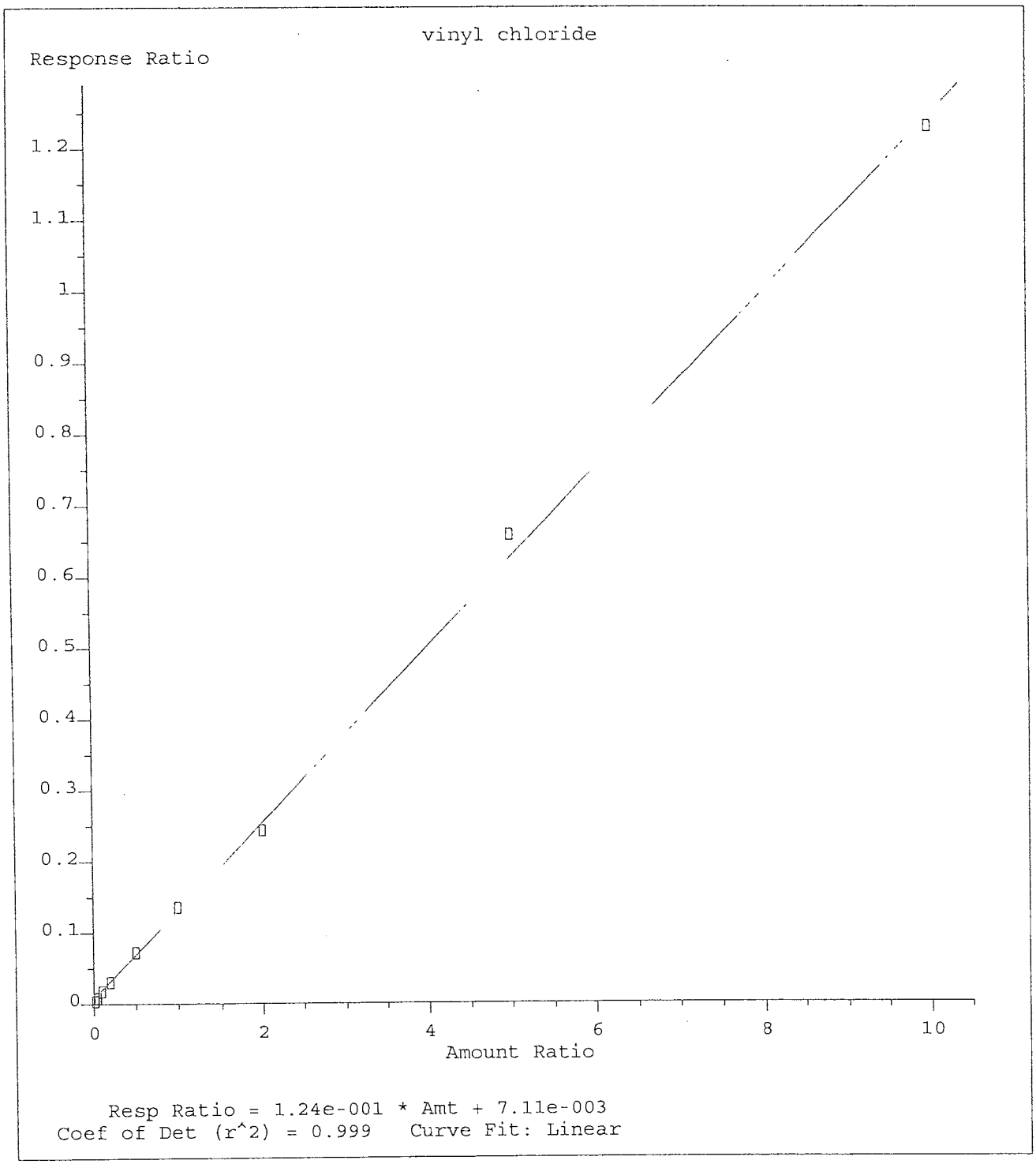
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
Total Cpnds : 90

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID	
1	I	Fluorobenzene IS	96	11.99	1.000	A	2	A	B	
2		dichlorodifluoromethane	85	2.84	0.237	A	2	A	B	
3	P	chloromethane	50	3.19	0.266	A	1	A	B	
4	C	vinyl chloride	62	3.33	0.277	L	1	A	B	
5		bromomethane	94	3.98	0.331	A	2	A	B	
6		chloroethane	64	4.09	0.341	A	2	A	B	
7		trichlorofluoromethane	101	4.50	0.376	A	2	A	B	
8		diethyl ether	59	5.02	0.419	A	2	A	B	
9		1,1,2-Trichlorotrifluoroethane	101	5.26	0.438	A	2	A	B	
10		acrolein	56	5.27	0.439	A	1	A	B	
11		acetone	43	5.41	0.451	A	1	A	B	
12	CM	1,1-dichloroethene	96	5.60	0.467	A	3	A	B	
13		tert-Butyl Alcohol(TBA)	59	5.78	0.482	A	1	A	B	
14		Iodomethane	142	6.20	0.517	L	3	A	B	Nontarget
15		methylene chloride	84	6.54	0.546	A	2	A	B	
16		carbon disulfide	76	6.56	0.547	A	1	A	B	
17		acrylonitrile	53	6.83	0.569	A	2	A	B	
18		Methyl-t-butyl ether(MTBE)	73	6.87	0.572	A	3	A	B	
19		trans-1,2-dichloroethene	96	7.14	0.595	A	3	A	B	
20		hexane	57	7.27	0.606	A	3	A	B	
21		Isopropyl ether(DIPE)	45	7.83	0.652	A	3	A	B	
22		vinyl acetate	43	8.06	0.672	A	1	A	B	
23	P	1,1-dichloroethane	63	8.04	0.670	A	2	A	B	
24		Ethyl-t-butyl ether(ETBE)	59	8.70	0.725	A	3	A	B	
25		2,2-dichloropropane	77	9.25	0.771	A	3	A	B	
26		cis-1,2-dichloroethene	61	9.36	0.780	A	3	A	B	
27		2-butanone(MEK)	43	8.98	0.749	A	2	A	B	
28		bromochloromethane	128	10.08	0.840	A	3	A	B	
29		Tetrahydrofuran(THF)	42	10.16	0.847	A	2	A	B	
30	C	chloroform	83	9.71	0.810	A	2	A	B	
31	S	SS Dibromofluoromethane_MS	111	10.20	0.850	A	2	A	B	
32		1,1,1-trichloroethane	97	10.59	0.883	A	3	A	B	
33		carbon tetrachloride	117	11.17	0.931	A	3	A	B	
34		1,1-dichloropropene	75	10.97	0.914	A	3	A	B	
35	S	SS 1,2-DCA-d4_MS	65	11.33	0.945	A	2	A	B	
36		tert-amyl methyl ether(TAME)	73	11.25	0.938	A	3	A	B	
37	M	benzene	78	11.56	0.964	A	3	A	B	
38		1,2-dichloroethane	62	11.54	0.962	A	2	A	B	
39	M	trichloroethene	95	12.74	1.062	A	3	A	B	
40	C	1,2-dichloropropane	63	13.05	1.088	A	3	A	B	
41		1,4-dioxaneV	88	13.51	1.126	A	2	A	B	
42		dibromomethane	93	13.53	1.128	A	3	A	B	
43		bromodichloromethane	83	13.44	1.121	A	3	A	B	
44		2-Chloroethoxyethene	63	13.95	1.163	Q	3	A	B	Nontarget
45		4-methyl-2-pentanone(MIBK)	58	14.00	1.167	A	3	A	B	
46		cis-1,3-dichloropropene	75	14.31	1.193	A	3	A	B	
47	I	Chlorobenzene-D5 IS	117	16.70	1.000	A	2	A	B	
48	S	SS Toluene-d8_MS	98	14.66	0.878	A	2	A	B	
49	CM	toluene	91	14.78	0.885	A	3	A	B	
50		trans-1,3-dichloropropene	75	15.04	0.900	A	3	A	B	
51		1,1,2-trichloroethane	83	15.25	0.914	A	3	A	B	
52		2-hexanone	43	15.27	0.914	A	2	A	B	
53		tetrachloroethene	166	15.68	0.939	A	3	A	B	
54		1,3-dichloropropane	76	15.60	0.934	A	2	A	B	
55		dibromochloromethane	129	15.96	0.956	L	3	A	B	
56		1,2-dibromoethane	107	16.22	0.972	A	3	A	B	
57	PM	chlorobenzene	112	16.75	1.003	A	2	A	B	
58		1,1,1,2-tetrachloroethane	131	16.79	1.006	A	3	A	B	
59	C	ethylbenzene	91	16.80	1.006	A	3	A	B	
60		mp-xylene	106	16.90	1.012	A	3	A	B	
61		o-xylene	106	17.43	1.044	A	3	A	B	
62		styrene	104	17.47	1.046	A	3	A	B	
63	P	bromoform	173	17.90	1.072	L	3	A	B	
64		iso-propylbenzene	105	17.83	1.068	A	3	A	B	

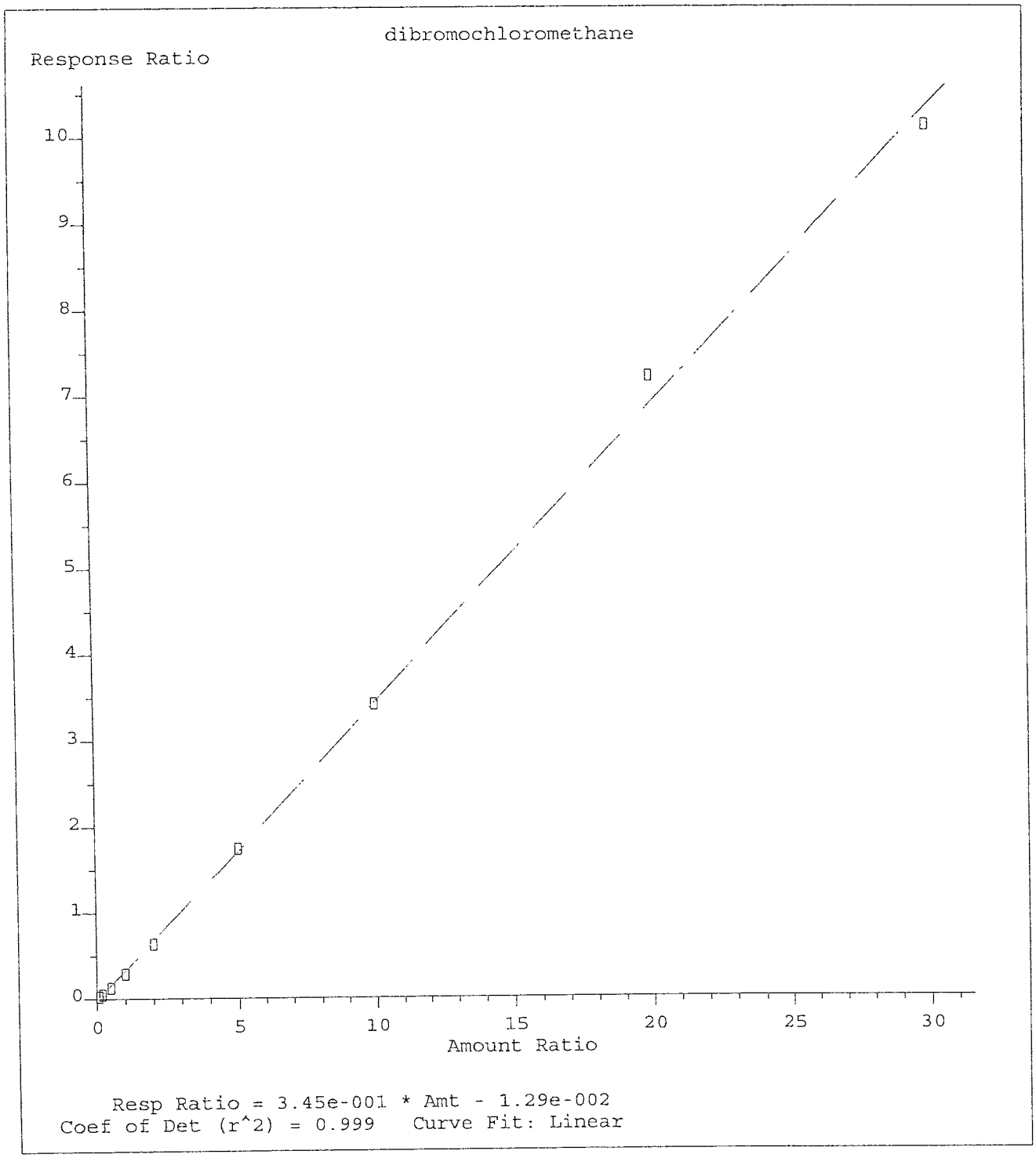
65	S	SS 4-BFB_MS	95	18.14	1.086	A	3	A	B
66	I	1,4-Dichlorobenzene-D4 IS	152	19.39	1.000	A	3	A	B
67		bromobenzene	156	18.38	0.948	A	3	A	B
68	P	1,1,2,2-tetrachloroethane	83	18.04	0.930	A	3	A	B
69		1,2,3-trichloropropane	110	18.21	0.939	A	3	A	B
70		trans-1,4-dichloro-2-butene	75	18.28	0.943	L	3	A	B Nontarget
71		n-propylbenzene	91	18.30	0.943	A	1	A	B
72		2-chlorotoluene	91	18.52	0.955	A	2	A	B
73		4-chlorotoluene	91	18.57	0.958	A	2	A	B
74		1,3,5-trimethylbenzene	105	18.47	0.953	A	3	A	B
75		tert-butylbenzene	119	18.86	0.972	A	3	A	B
76		1,2,4-trimethylbenzene	105	18.90	0.975	A	3	A	B
77		sec-butylbenzene	105	19.07	0.983	A	3	A	B
78		1,3-dichlorobenzeneV	146	19.33	0.997	A	3	A	B
79		p-isopropyltoluene	119	19.20	0.990	A	3	A	B
80		1,4-dichlorobenzeneV	146	19.43	1.002	A	3	A	B
81		1,2-dichlorobenzeneV	146	19.79	1.020	A	3	A	B
82		n-butylbenzene	91	19.59	1.010	A	3	A	B
83	S	SS 1,2-DCB-d4_MS	152	19.76	1.019	A	3	A	B
84		1,2-dibromo-3-chloropropane	157	20.52	1.058	L	3	A	B
85		1,3,5-trichlorobenzV	180	20.75	1.070	A	3	A	B
86		1,2,4-trichlorobenzV	180	21.45	1.106	A	3	A	B
87		hexachlorobutadieneV	225	21.57	1.113	A	3	A	B
88		naphthaleneV	128	21.78	1.123	A	3	A	B
89		1,2,3-trichlorobenzV	180	22.06	1.138	A	3	A	B
90	S	SS 2,5-DBT_MS	250	23.37	1.205	L	3	A	B Nontarget

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

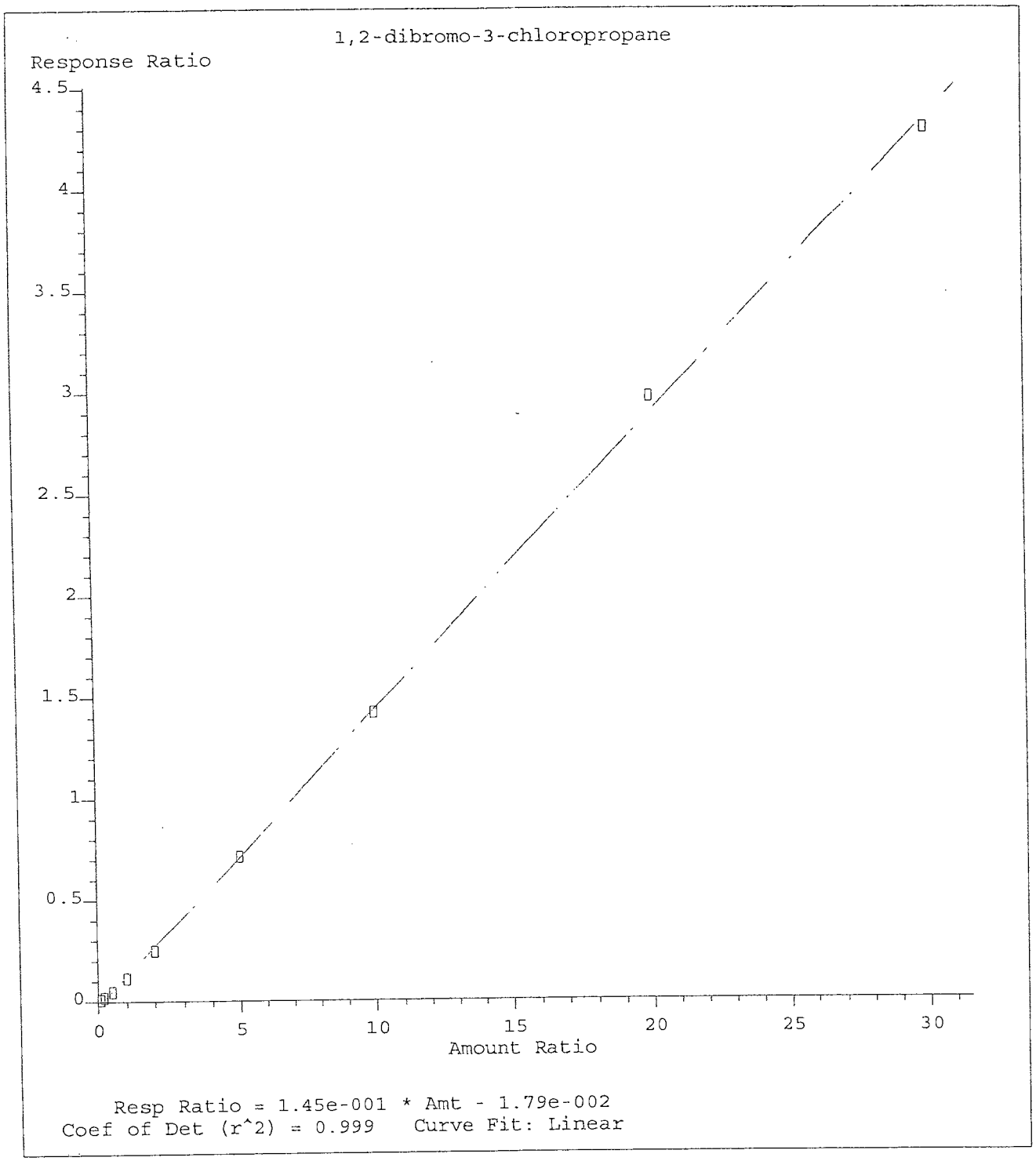
5VID0819.M Fri Aug 23 12:50:23 2013



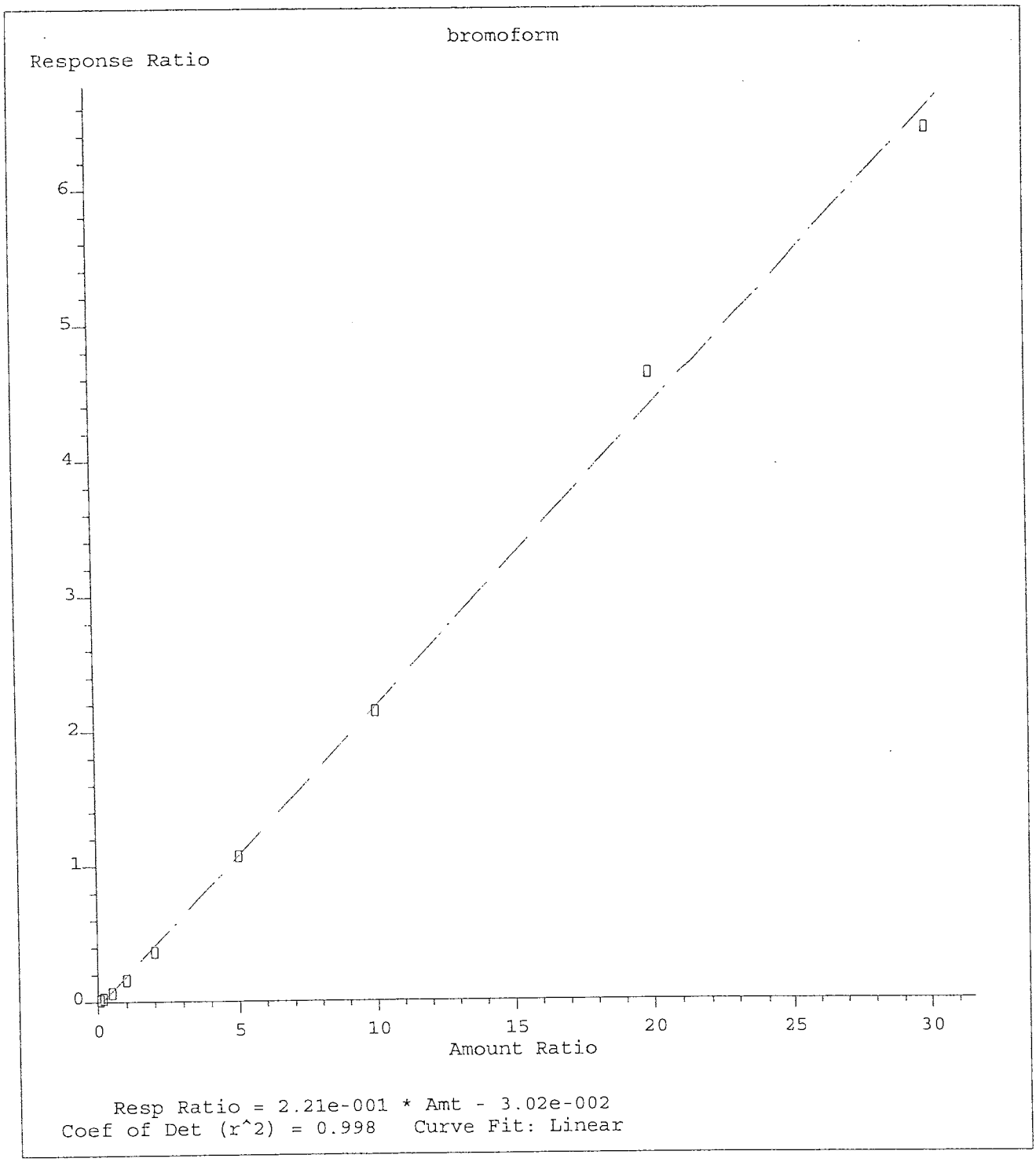
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Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

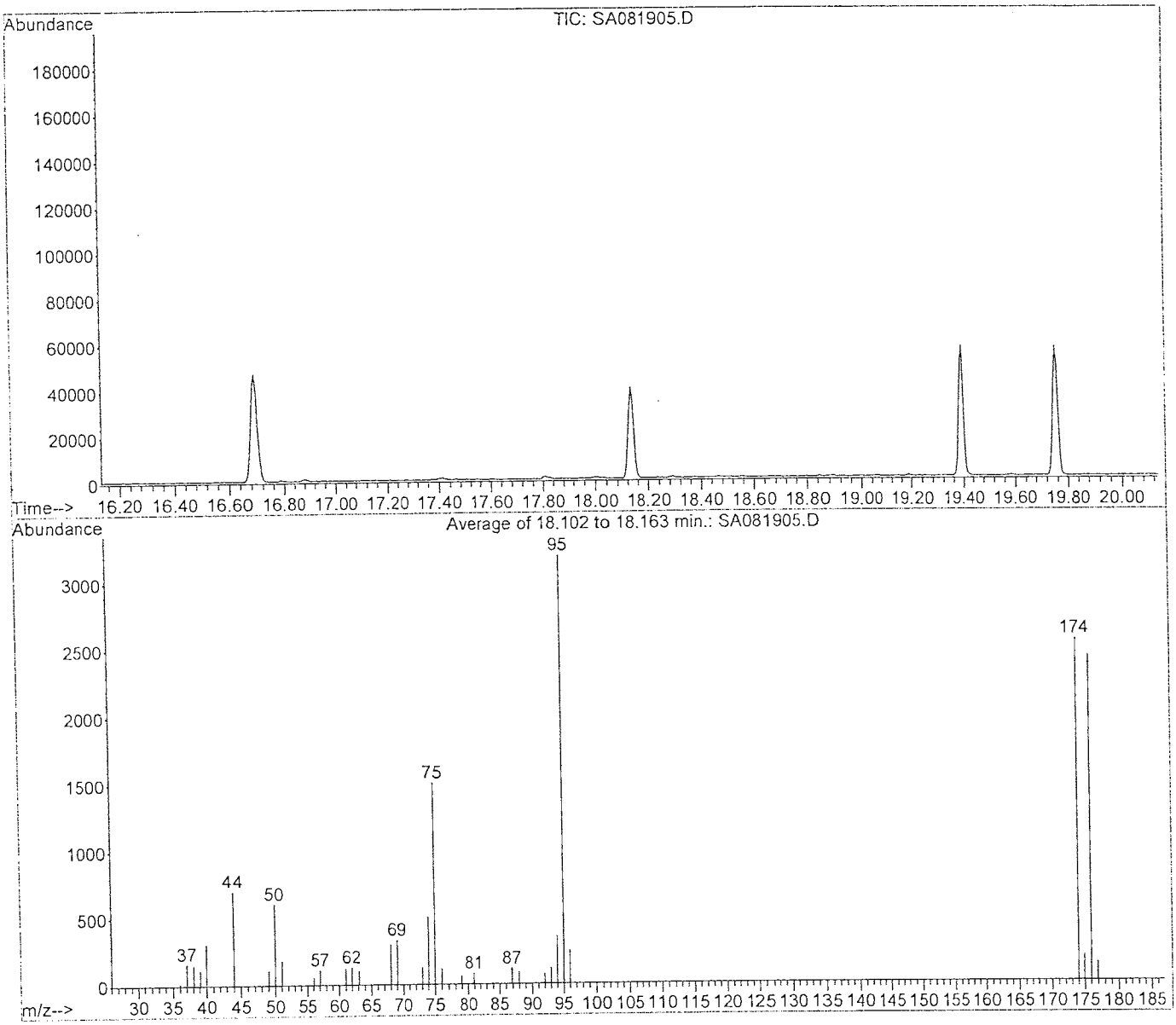


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Calibration Table Last Updated: Fri Aug 23 12:44:08 2013



Method Name: W:\1\METHODS\2013\5VID0819.M
Calibration Table Last Updated: Fri Aug 23 12:44:08 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081905.D Vial: 5
Acq On : 19 Aug 2013 10:44 am Operator: BAM
Sample : BFB 25 MG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



Spectrum Information: Average of 18.102 to 18.163 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	605	PASS
75	95	30	60	47.1	1503	PASS
95	95	100	100	100.0	3194	PASS
96	95	5	9	7.7	245	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	2543	PASS
175	174	5	9	7.4	188	PASS
176	174	95	101	95.1	2418	PASS
177	176	5	9	5.6	135	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 12:13:37 2013 Quant Results File: 5LID0813.RES

Quant Method : C:\MSDCHEM\1...\5LID0813.M (RTE Integrator)
Title : VOAMS5 01/18/2012
Last Update : Thu Aug 15 15:32:24 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

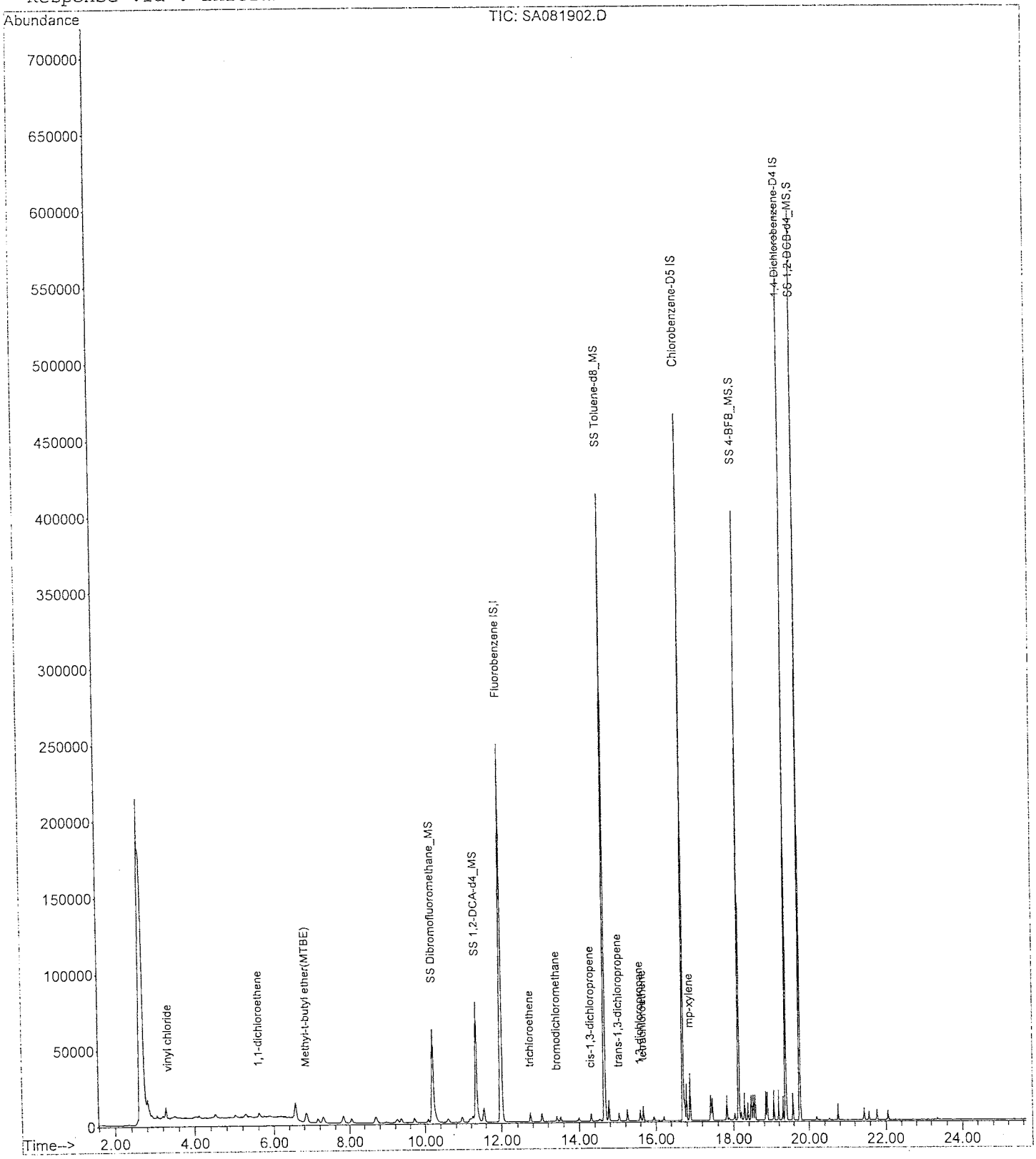
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329584	10.000	ug/L	0.00
System Monitoring Compounds						
61) SS 4-BFB_MS	18.13	95	125297	10.51	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.10%			
78) SS 1,2-DCB-d4_MS	19.75	152	131904	9.23	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.33%			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	1326	0.353	ug/L	94
11) 1,1-dichloroethene	5.61	96	2165	0.310	ug/L	93
16) Methyl-t-butyl ether(MTBE)	6.85	73	11802	0.703	ug/L	95
29) SS Dibromofluoromethane_MS	10.20	111	76497	9.528	ug/L #	94
33) SS 1,2-DCA-d4_MS	11.34	65	95920	11.496	ug/L #	94
37) trichloroethene	12.74	95	2509	0.276	ug/L #	93
40) bromodichloromethane	13.44	83	2656	0.271	ug/L #	93
42) cis-1,3-dichloropropene	14.30	75	3030	0.305	ug/L #	77
43) Chlorobenzene-D5 IS	16.69	117	252752	9.805	ug/L #	91
44) SS Toluene-d8_MS	14.65	98	325692	10.105	ug/L #	96
46) trans-1,3-dichloropropene	15.03	75	2763	0.305	ug/L #	75
49) tetrachloroethene	15.67	166	2685	0.235	ug/L #	87
50) 1,3-dichloropropane	15.59	76	3650	0.285	ug/L #	69
56) mp-xylene	16.89	106	9632	0.529	ug/L #	91
62) 1,4-Dichlorobenzene-D4 IS	19.39	152	131322	9.191	ug/L #	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081902.D Vial: 2
Acq On : 19 Aug 2013 9:01 am Operator: BAM
Sample : 0.2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:38 2013 Quant Results File: 5LID0813.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:39:16 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

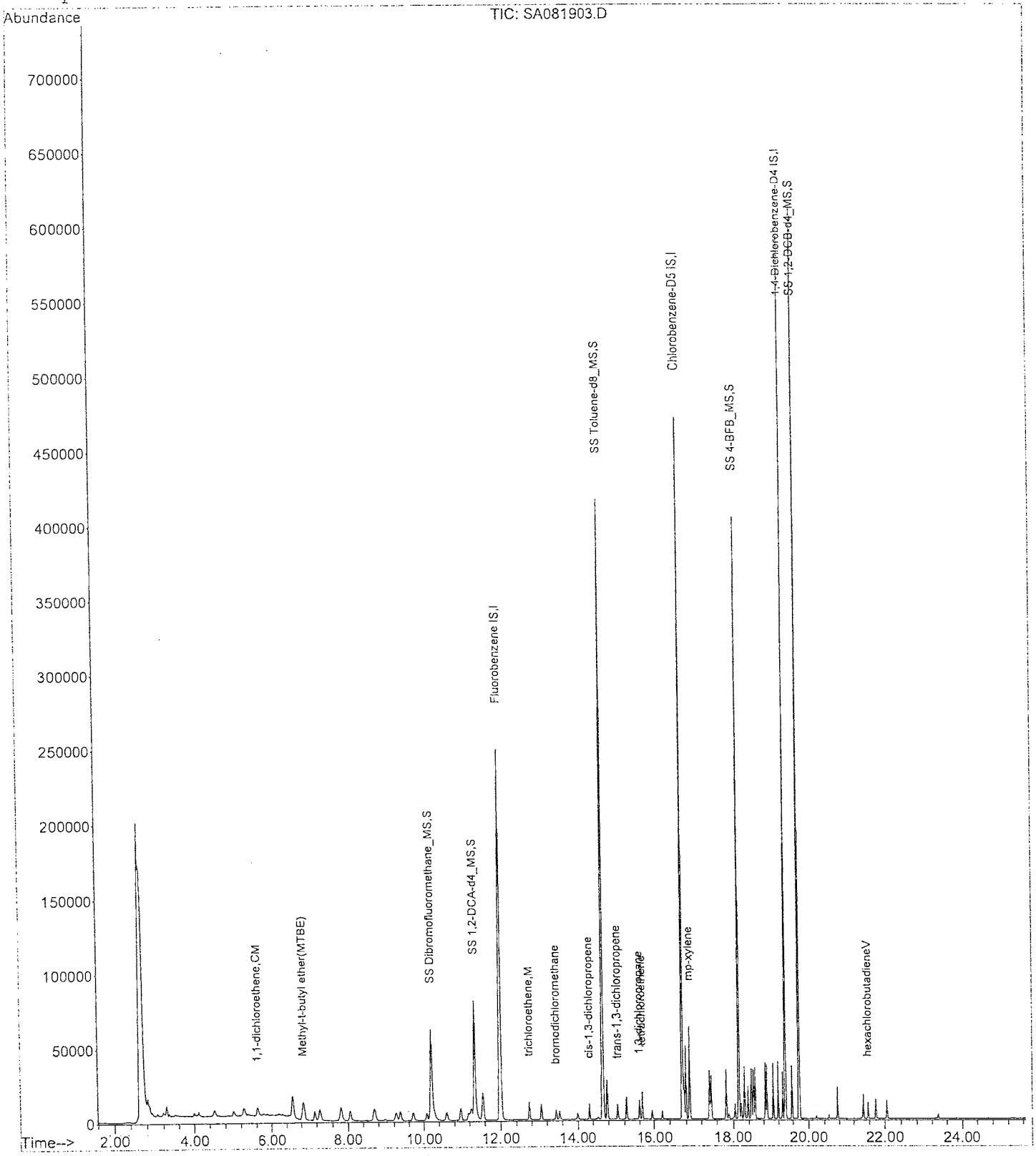
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329809	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	258269	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133996	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	77167	12.17	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.69%#			
35) SS 1,2-DCA-d4_MS	11.33	65	96496	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.14%#			
48) SS Toluene-d8_MS	14.66	98	328246	12.90	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.04%#			
65) SS 4-BFB_MS	18.13	95	127157	13.22	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.15%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133798	12.67	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.74%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
4) vinyl chloride	3.34	62	2669	Below Cal		100
12) 1,1-dichloroethene	5.62	96	4286	0.585	ug/L	95
18) Methyl-t-butyl ether(MTBE)	6.86	73	23890	1.478	ug/L #	93
39) trichloroethene	12.73	95	5229	0.667	ug/L	97
43) bromodichloromethane	13.44	83	5080	0.560	ug/L	96
46) cis-1,3-dichloropropene	14.30	75	6172	2.198	ug/L #	91
50) trans-1,3-dichloropropene	15.03	75	5318	1.795	ug/L #	90
53) tetrachloroethene	15.67	166	5406	0.608	ug/L	98
54) 1,3-dichloropropane	15.60	76	6873	0.608	ug/L #	82
60) mp-xylene	16.89	106	19484	1.300	ug/L	97
87) hexachlorobutadieneV	21.56	225	2252	0.579	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081903.D Vial: 3
Acq On : 19 Aug 2013 9:35 am Operator: BAM
Sample : 0.5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331046	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	256587	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	135437	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78237	12.29	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.92%#			
35) SS 1,2-DCA-d4_MS	11.33	65	97737	13.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 131.32%#			
48) SS Toluene-d8_MS	14.65	98	328729	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.07%#			
65) SS 4-BFB_MS	18.13	95	127655	13.35	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	135388	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.88%#			
90) SS 2,5-DBT_MS	23.36	250	1783	6.00	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 15.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	12564	1.393	ug/L	98
3) chloromethane	3.19	50	11863	1.272	ug/L	100
4) vinyl chloride	3.34	62	5780	Below Cal		98
5) bromomethane	3.99	94	4980	0.936	ug/L	91
6) chloroethane	4.11	64	6898	1.230	ug/L	97
7) trichlorofluoromethane	4.52	101	14555	1.230	ug/L	98
8) diethyl ether	5.03	59	7616	1.328	ug/L	93
9) 1,1,2-Trichlorotrifluoroet	5.27	101	10431	1.490	ug/L #	87
10) acrolein	5.27	56	1636	2.405	ug/L #	70
11) acetone	5.39	43	3086	1.715	ug/L #	69
12) 1,1-dichloroethene	5.61	96	8518	1.159	ug/L	95
13) tert-Butyl Alcohol(TBA)	5.78	59	4046	8.003	ug/L #	81
15) methylene chloride	6.55	84	9698	1.177	ug/L	98
16) carbon disulfide	6.57	76	31835	1.499	ug/L #	94
17) acrylonitrile	6.82	53	4377	1.564	ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	50348	3.102	ug/L	94
19) trans-1,2-dichloroethene	7.15	96	8789	1.252	ug/L	96
20) hexane	7.29	57	15861	1.856	ug/L	94
21) Isopropyl ether(DIPE)	7.81	45	31465	1.457	ug/L	98
22) vinyl acetate	8.05	43	17655	1.502	ug/L	96
23) 1,1-dichloroethane	8.05	63	16758	1.290	ug/L #	95
24) Ethyl-t-butyl ether(ETBE)	8.70	59	27729	1.563	ug/L	98
25) 2,2-dichloropropane	9.24	77	11874	1.446	ug/L	99
26) cis-1,2-dichloroethene	9.36	61	12247	1.211	ug/L	95
27) 2-butanone(MEK)	8.98	43	4672	1.802	ug/L #	91
28) bromochloromethane	10.08	128	4642	1.212	ug/L	99
29) Tetrahydrofuran(THF)	10.18	42	3670	2.189	ug/L #	85
30) chloroform	9.71	83	16503	1.284	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	12866	1.269	ug/L	99
33) carbon tetrachloride	11.17	117	10403	1.147	ug/L	98
34) 1,1-dichloropropene	10.96	75	13340	1.339	ug/L	92
36) tert-amyl methyl ether(TAM	11.24	73	23753	5.976	ug/L #	89
37) benzene	11.55	78	38760	1.241	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:40:31 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

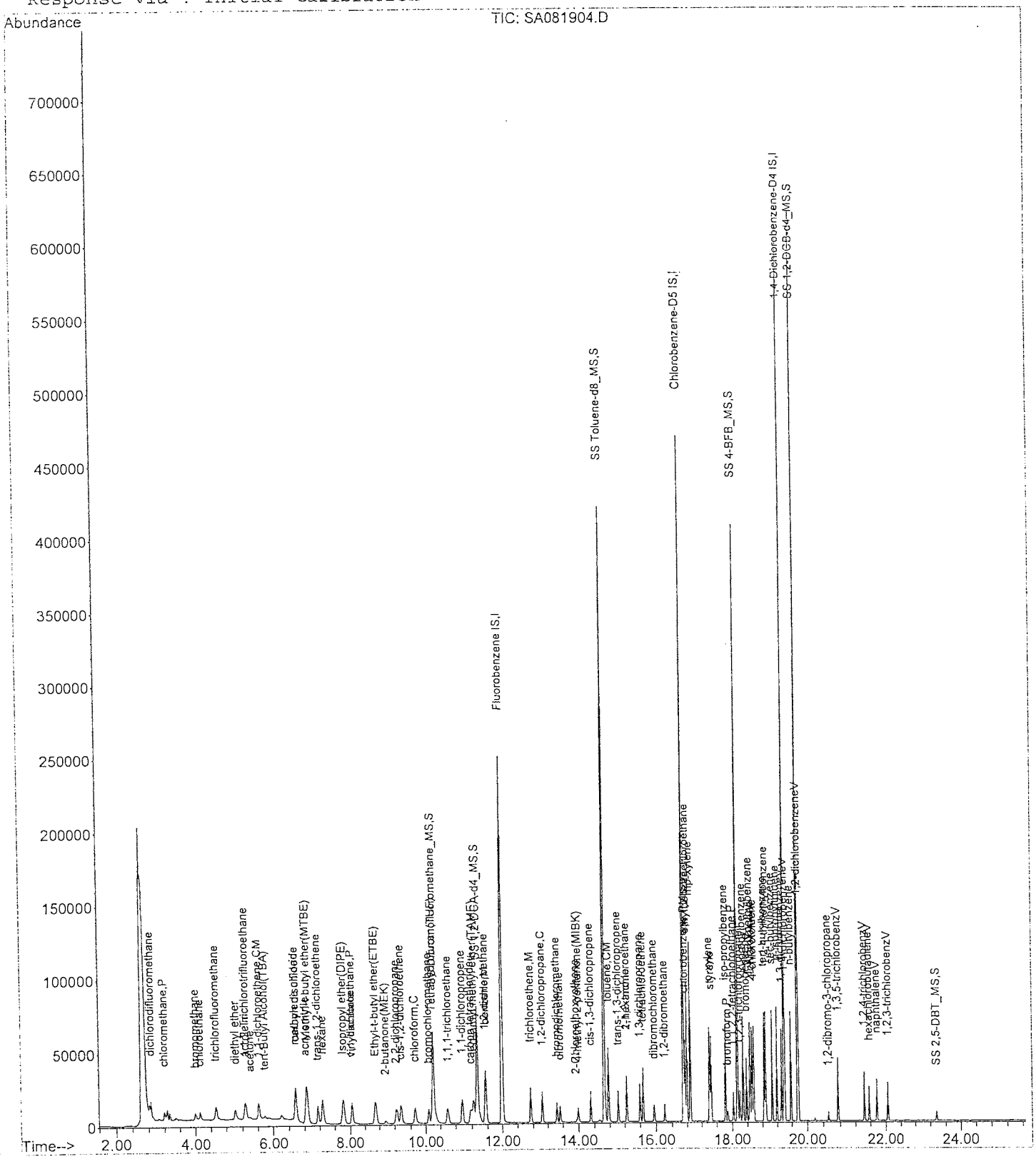
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	13328	1.301 ug/L	98
39) trichloroethene	12.73	95	9969	1.267 ug/L	98
40) 1,2-dichloropropane	13.05	63	9198	1.196 ug/L	94
42) dibromomethane	13.53	93	5241	1.148 ug/L	97
43) bromodichloromethane	13.44	83	9783	1.075 ug/L	98
44) 2-Chloroethoxyethene	13.95	63	736	9.794 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	3134	1.367 ug/L	92
46) cis-1,3-dichloropropene	14.30	75	11883	2.652 ug/L	91
49) toluene	14.77	91	42180	1.279 ug/L	99
50) trans-1,3-dichloropropene	15.03	75	10719	2.286 ug/L	93
51) 1,1,2-trichloroethane	15.25	83	6360	1.216 ug/L	96
52) 2-hexanone	15.25	43	5641	1.570 ug/L	94
53) tetrachloroethene	15.67	166	11126	1.259 ug/L	98
54) 1,3-dichloropropane	15.60	76	13608	1.212 ug/L	89
55) dibromochloromethane	15.95	129	6051	3.054 ug/L #	97
56) 1,2-dibromoethane	16.22	107	7628	1.202 ug/L	100
57) chlorobenzene	16.74	112	28347	1.243 ug/L	97
58) 1,1,1,2-tetrachloroethane	16.79	131	7835	1.106 ug/L #	74
59) ethylbenzene	16.79	91	48153	1.313 ug/L	99
60) mp-xylene	16.89	106	38052	2.556 ug/L	97
61) o-xylene	17.41	106	17949	1.275 ug/L	96
62) styrene	17.46	104	28616	1.203 ug/L	96
63) bromoform	17.89	173	3143	3.473 ug/L	98
64) iso-propylbenzene	17.83	105	42810	1.288 ug/L	98
67) bromobenzene	18.38	156	11673	1.254 ug/L	96
68) 1,1,2,2-tetrachloroethane	18.04	83	8834	1.179 ug/L #	1
69) 1,2,3-trichloropropane	18.21	110	3033	1.292 ug/L	98
71) n-propylbenzene	18.28	91	54448	1.315 ug/L	99
72) 2-chlorotoluene	18.51	91	34205	1.309 ug/L	99
73) 4-chlorotoluene	18.56	91	34795	1.322 ug/L	97
74) 1,3,5-trimethylbenzene	18.46	105	38409	1.318 ug/L	98
75) tert-butylbenzene	18.84	119	34129	1.333 ug/L	96
76) 1,2,4-trimethylbenzene	18.89	105	39627	1.311 ug/L	99
77) sec-butylbenzene	19.06	105	47759	1.318 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	22296	1.275 ug/L	97
79) p-isopropyltoluene	19.19	119	39947	1.301 ug/L	98
80) 1,4-dichlorobenzeneV	19.42	146	22414m	1.257 ug/L	
81) 1,2-dichlorobenzeneV	19.77	146	20836	1.258 ug/L #	33
82) n-butylbenzene	19.58	91	33045	1.249 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	1237	3.871 ug/L	88
85) 1,3,5-trichlorobenzV	20.75	180	12414	1.234 ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	10022	1.220 ug/L	97
87) hexachlorobutadieneV	21.56	225	4402	1.120 ug/L	97
88) naphthaleneV	21.76	128	24159	1.140 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	8796	1.237 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081904.D Vial: 4
Acq On : 19 Aug 2013 10:09 am Operator: BAM
Sample : 1 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:18 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	319447	10.000 ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249650	10.000 ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	130715	10.000 ug/L	0.00
System Monitoring Compounds					
31) SS Dibromofluoromethane_MS	10.20	111	75381	12.27 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.73%#		
35) SS 1,2-DCA-d4_MS	11.33	65	93786	13.06 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.58%#		
48) SS Toluene-d8_MS	14.65	98	318656	12.96 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.59%#		
65) SS 4-BFB_MS	18.13	95	123334	13.26 ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.60%#		
83) SS 1,2-DCB-d4_MS	19.75	152	129791	12.60 ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.03%#		
90) SS 2,5-DBT_MS	23.36	250	3717	6.74 ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 16.86%#		
Target Compounds					Qvalue
2) dichlorodifluoromethane	2.85	85	20603	2.368 ug/L	98
3) chloromethane	3.20	50	19547	2.173 ug/L	99
4) vinyl chloride	3.34	62	9660	Below Cal	99
5) bromomethane	4.00	94	8033	1.565 ug/L	94
6) chloroethane	4.12	64	11601	2.144 ug/L	97
7) trichlorofluoromethane	4.52	101	24102	2.111 ug/L	98
8) diethyl ether	5.02	59	12737	2.301 ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	17137	2.538 ug/L	99
10) acrolein	5.27	56	2139m	3.258 ug/L	
11) acetone	5.38	43	4673	2.692 ug/L	92
12) 1,1-dichloroethene	5.61	96	15933	2.247 ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	7357	15.081 ug/L #	65
15) methylene chloride	6.55	84	19624	2.468 ug/L	99
16) carbon disulfide	6.57	76	51897	2.533 ug/L	96
17) acrylonitrile	6.82	53	7139	2.644 ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	88412	5.645 ug/L	95
19) trans-1,2-dichloroethene	7.15	96	17490	2.582 ug/L	97
20) hexane	7.28	57	26198	3.177 ug/L	95
21) Isopropyl ether(DIPE)	7.82	45	61129	2.933 ug/L	99
22) vinyl acetate	8.05	43	29146	2.570 ug/L	97
23) 1,1-dichloroethane	8.05	63	31798	2.536 ug/L #	98
24) Ethyl-t-butyl ether(ETBE)	8.70	59	53393	3.118 ug/L	97
25) 2,2-dichloropropane	9.25	77	23815	3.006 ug/L	98
26) cis-1,2-dichloroethene	9.36	61	25574	2.621 ug/L	99
27) 2-butanone(MEK)	8.96	43	7612	3.043 ug/L #	91
28) bromochloromethane	10.08	128	9132	2.470 ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	5556	3.434 ug/L	89
30) chloroform	9.71	83	31108	2.509 ug/L	99
32) 1,1,1-trichloroethane	10.60	97	25378	2.595 ug/L	98
33) carbon tetrachloride	11.17	117	19915	2.276 ug/L	98
34) 1,1-dichloropropene	10.97	75	25741	2.677 ug/L	95
36) tert-amyl methyl ether(TAM	11.24	73	45373	7.172 ug/L #	90
37) benzene	11.55	78	75148	2.493 ug/L	98

(#) = qualifier out of range (m) = manual integration
SA081906.D 5VID0819.M Fri Aug 23 12:52:58 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:41:36 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

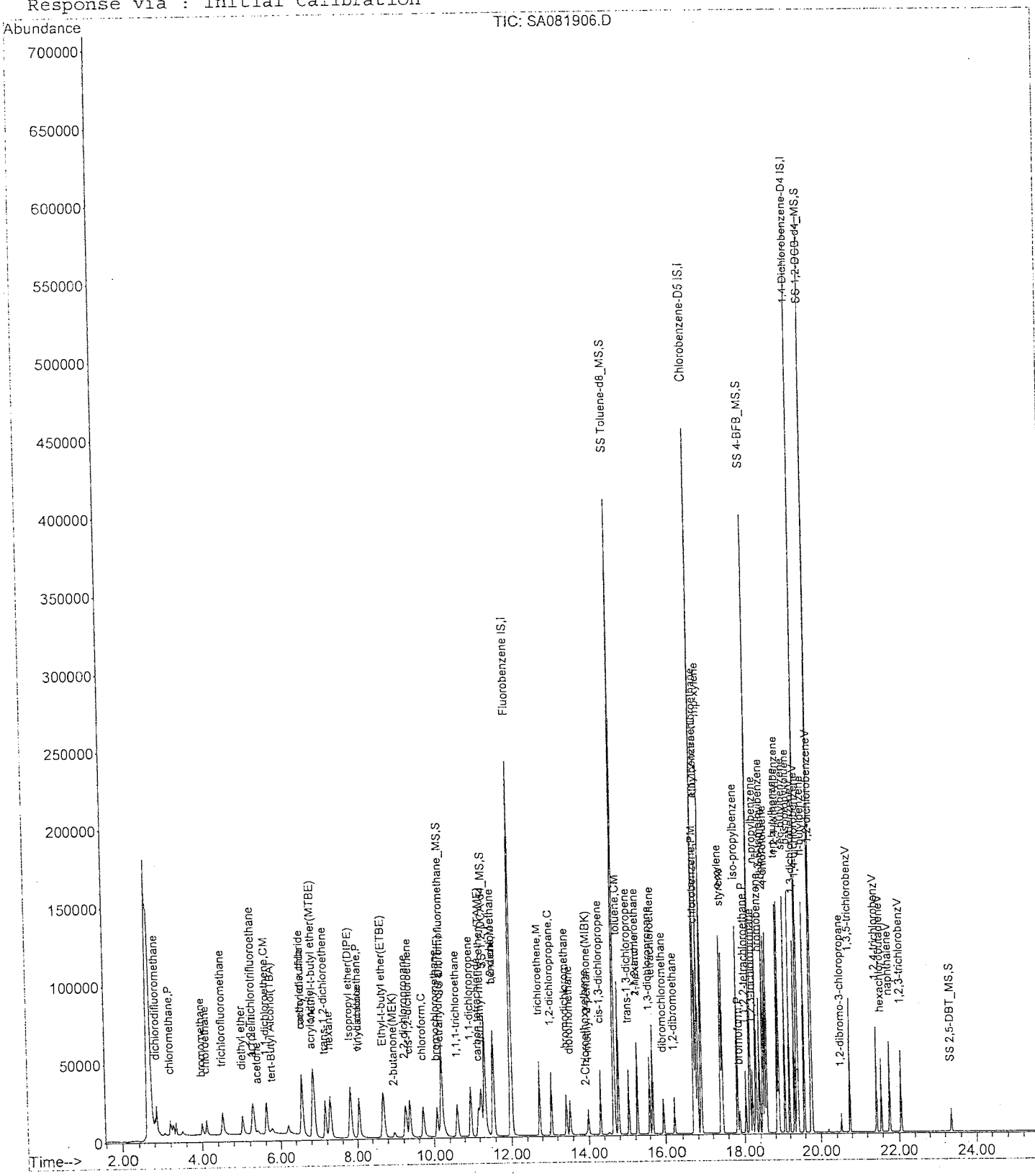
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.54	62	26250	2.655 ug/L	100
39)	trichloroethene	12.73	95	18813	2.477 ug/L	97
40)	1,2-dichloropropane	13.05	63	17934	2.416 ug/L	95
42)	dibromomethane	13.53	93	10335	2.346 ug/L	98
43)	bromodichloromethane	13.44	83	19293	2.198 ug/L	99
44)	2-Chloroethoxyethene	13.95	63	860	9.946 ug/L #	1
45)	4-methyl-2-pentanone(MIBK)	13.99	58	5142	2.325 ug/L	93
46)	cis-1,3-dichloropropene	14.30	75	23435	3.643 ug/L	94
49)	toluene	14.77	91	81742	2.548 ug/L	99
50)	trans-1,3-dichloropropene	15.03	75	20701	3.240 ug/L	93
51)	1,1,2-trichloroethane	15.25	83	12172	2.392 ug/L	97
52)	2-hexanone	15.25	43	9113	2.606 ug/L	93
53)	tetrachloroethene	15.67	166	21366	2.484 ug/L	98
54)	1,3-dichloropropane	15.59	76	26443	2.420 ug/L	90
55)	dibromochloromethane	15.95	129	12078	3.862 ug/L #	98
56)	1,2-dibromoethane	16.22	107	14844	2.404 ug/L	99
57)	chlorobenzene	16.74	112	55032	2.481 ug/L	99
58)	1,1,1,2-tetrachloroethane	16.79	131	15120	2.194 ug/L	99
59)	ethylbenzene	16.79	91	93282	2.614 ug/L	99
60)	mp-xylene	16.89	106	74104	5.116 ug/L	96
61)	o-xylene	17.41	106	36012	2.630 ug/L	98
62)	styrene	17.46	104	57490	2.483 ug/L	98
63)	bromoform	17.88	173	6115	4.103 ug/L	96
64)	iso-propylbenzene	17.83	105	85828	2.654 ug/L	99
67)	bromobenzene	18.38	156	22626	2.518 ug/L	96
68)	1,1,2,2-tetrachloroethane	18.03	83	17355	2.399 ug/L #	1
69)	1,2,3-trichloropropane	18.21	110	5701	2.516 ug/L	98
71)	n-propylbenzene	18.28	91	108302	2.710 ug/L	99
72)	2-chlorotoluene	18.51	91	67012	2.658 ug/L	98
73)	4-chlorotoluene	18.56	91	67613	2.663 ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	75808	2.696 ug/L	98
75)	tert-butylbenzene	18.84	119	67760	2.743 ug/L	97
76)	1,2,4-trimethylbenzene	18.89	105	77341	2.652 ug/L	99
77)	sec-butylbenzene	19.06	105	94866	2.713 ug/L	99
78)	1,3-dichlorobenzeneV	19.32	146	44339	2.627 ug/L	98
79)	p-isopropyltoluene	19.19	119	78820	2.660 ug/L	98
80)	1,4-dichlorobenzeneV	19.42	146	44318	2.575 ug/L	94
81)	1,2-dichlorobenzeneV	19.77	146	41371	2.588 ug/L #	93
82)	n-butylbenzene	19.58	91	66590	2.608 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	2460	4.684 ug/L	94
85)	1,3,5-trichlorobenzV	20.75	180	24093	2.482 ug/L	96
86)	1,2,4-trichlorobenzV	21.44	180	19943	2.515 ug/L	96
87)	hexachlorobutadieneV	21.56	225	8743	2.305 ug/L	96
88)	naphthaleneV	21.76	128	47834	2.338 ug/L	100
89)	1,2,3-trichlorobenzV	22.05	180	17026	2.482 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081906.D Vial: 6
Acq On : 19 Aug 2013 11:18 am Operator: BAM
Sample : 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	320805	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	251289	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	133403	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	76274	12.37	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.66%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93843	13.01	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.11%#			
48) SS Toluene-d8_MS	14.65	98	317981	12.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.47%#			
65) SS 4-BFB_MS	18.13	95	125430	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.98%#			
83) SS 1,2-DCB-d4_MS	19.75	152	133725	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	10510	9.19	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 22.98%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.86	85	52735	6.035	ug/L	98
3) chloromethane	3.19	50	48146	5.329	ug/L	99
4) vinyl chloride	3.34	62	23140	3.053	ug/L	98
5) bromomethane	4.00	94	20450	3.967	ug/L	99
6) chloroethane	4.12	64	29303	5.392	ug/L	98
7) trichlorofluoromethane	4.52	101	62572	5.458	ug/L	98
8) diethyl ether	5.02	59	32652	5.873	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.27	101	42573	6.277	ug/L	96
10) acrolein	5.27	56	4060	6.158	ug/L	94
11) acetone	5.38	43	10264	5.888	ug/L	99
12) 1,1-dichloroethene	5.61	96	36739	5.159	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.77	59	16528	33.736	ug/L #	80
15) methylene chloride	6.55	84	42886	5.371	ug/L	99
16) carbon disulfide	6.57	76	111777	5.432	ug/L	97
17) acrylonitrile	6.82	53	17825	6.573	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	216505	13.766	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	40969	6.023	ug/L	97
20) hexane	7.28	57	67117	8.104	ug/L	98
21) Isopropyl ether(DIPE)	7.82	45	143629	6.861	ug/L	98
22) vinyl acetate	8.06	43	72699	6.383	ug/L	98
23) 1,1-dichloroethane	8.05	63	75512	5.998	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	126117	7.334	ug/L	97
25) 2,2-dichloropropane	9.25	77	56793	7.138	ug/L	96
26) cis-1,2-dichloroethene	9.36	61	60826	6.209	ug/L	98
27) 2-butanone(MEK)	8.97	43	17834	7.100	ug/L	97
28) bromochloromethane	10.08	128	21282	5.733	ug/L	98
29) Tetrahydrofuran(THF)	10.16	42	12622	7.768	ug/L	94
30) chloroform	9.71	83	72795	5.845	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	60406	6.150	ug/L	99
33) carbon tetrachloride	11.17	117	48262	5.492	ug/L	98
34) 1,1-dichloropropene	10.96	75	60041	6.218	ug/L	96
36) tert-amyl methyl ether(TAM	11.24	73	108618	10.516	ug/L #	90
37) benzene	11.56	78	176668	5.836	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081907.D 5VID0819.M Fri Aug 23 12:53:08 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:44:46 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

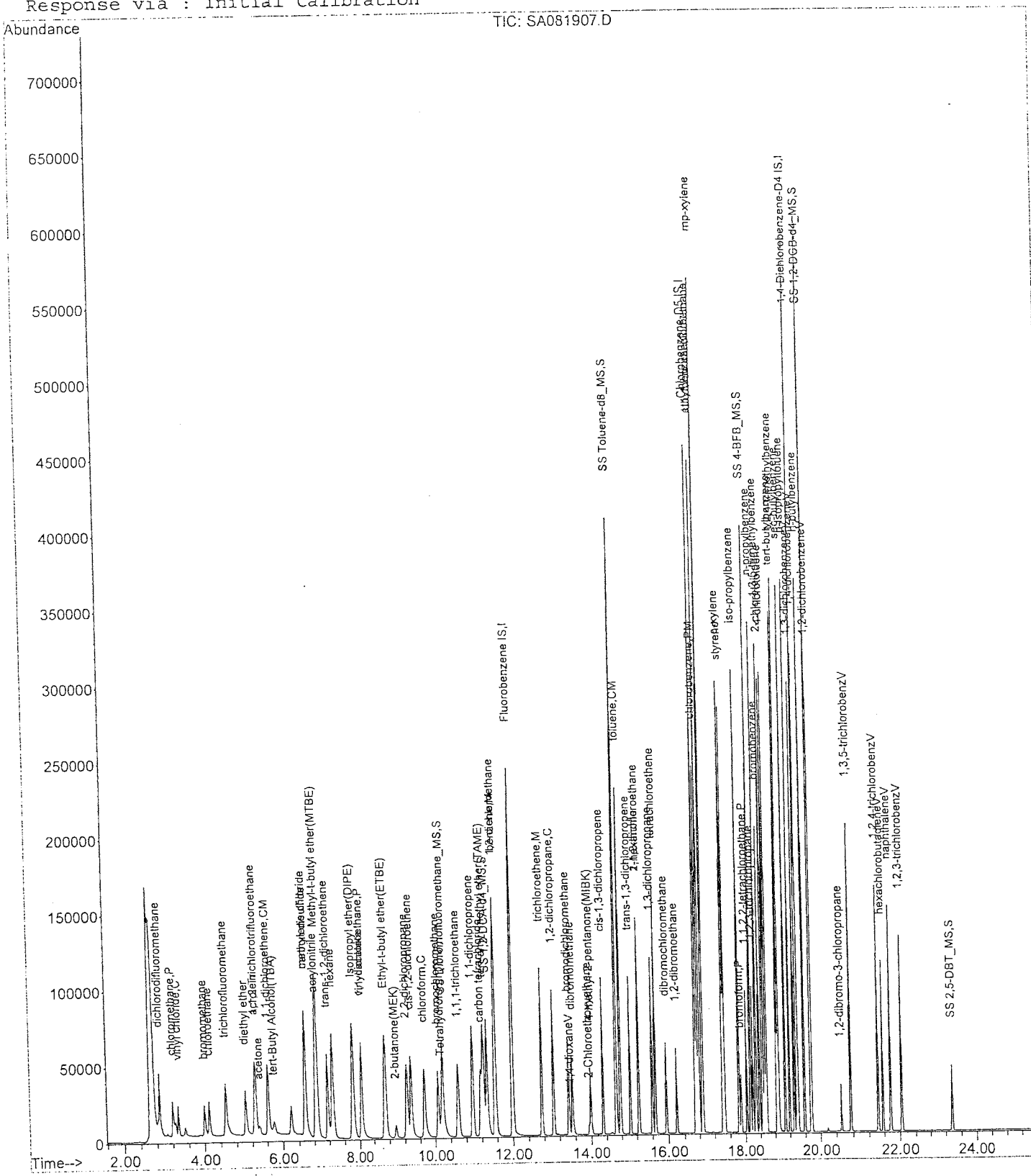
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.54	62	61309	6.175 ug/L	100
39) trichloroethene	12.73	95	45171	5.922 ug/L	98
40) 1,2-dichloropropane	13.05	63	43515	5.838 ug/L	97
41) 1,4-dioxaneV	13.48	88	846m	13.546 ug/L	
42) dibromomethane	13.53	93	24271	5.487 ug/L	97
43) bromodichloromethane	13.44	83	47407	5.377 ug/L	99
44) 2-Chloroethoxyethene	13.95	63	3104	12.179 ug/L #	43
45) 4-methyl-2-pentanone(MIBK)	13.99	58	13485	6.071 ug/L	93
46) cis-1,3-dichloropropene	14.30	75	58094	6.490 ug/L	94
49) toluene	14.77	91	191504	5.931 ug/L	99
50) trans-1,3-dichloropropene	15.03	75	52570	6.168 ug/L	95
51) 1,1,2-trichloroethane	15.25	83	29245	5.711 ug/L	98
52) 2-hexanone	15.25	43	24389	6.929 ug/L	95
53) tetrachloroethene	15.67	166	50144	5.792 ug/L	98
54) 1,3-dichloropropane	15.60	76	62562	5.689 ug/L	93
55) dibromochloromethane	15.95	129	31928	6.426 ug/L #	99
56) 1,2-dibromoethane	16.22	107	35917	5.778 ug/L	100
57) chlorobenzene	16.74	112	130184	5.831 ug/L	98
58) 1,1,1,2-tetrachloroethane	16.79	131	38004	5.480 ug/L	99
59) ethylbenzene	16.79	91	219934	6.123 ug/L	99
60) mp-xylene	16.89	106	177354	12.164 ug/L	98
61) o-xylene	17.41	106	84117	6.102 ug/L	96
62) styrene	17.46	104	139333	5.980 ug/L	98
63) bromoform	17.89	173	16642	6.250 ug/L	97
64) iso-propylbenzene	17.83	105	203714	6.259 ug/L	99
67) bromobenzene	18.38	156	53742	5.860 ug/L	96
68) 1,1,2,2-tetrachloroethane	18.03	83	41833	5.666 ug/L	99
69) 1,2,3-trichloropropane	18.20	110	13604	5.884 ug/L	99
71) n-propylbenzene	18.28	91	258877	6.348 ug/L	99
72) 2-chlorotoluene	18.51	91	159436	6.196 ug/L	98
73) 4-chlorotoluene	18.56	91	161678	6.239 ug/L	98
74) 1,3,5-trimethylbenzene	18.46	105	182407	6.355 ug/L	99
75) tert-butylbenzene	18.84	119	161039	6.387 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	188944	6.348 ug/L	99
77) sec-butylbenzene	19.06	105	226722	6.354 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	104856	6.088 ug/L	98
79) p-isopropyltoluene	19.19	119	193097	6.385 ug/L	98
80) 1,4-dichlorobenzeneV	19.42	146	105039	5.981 ug/L	97
81) 1,2-dichlorobenzeneV	19.78	146	97597	5.983 ug/L #	88
82) n-butylbenzene	19.58	91	162983	6.256 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	6339	7.094 ug/L	93
85) 1,3,5-trichlorobenzV	20.75	180	58265	5.880 ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	48079	5.941 ug/L	97
87) hexachlorobutadieneV	21.56	225	20536	5.305 ug/L	94
88) naphthaleneV	21.76	128	121958	5.842 ug/L	99
89) 1,2,3-trichlorobenzV	22.05	180	41777	5.967 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081907.D Vial: 7
Acq On : 19 Aug 2013 11:52 am Operator: BAM
Sample : 5 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	329680	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	257906	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139765	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	78654	12.41	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.09%#			
35) SS 1,2-DCA-d4_MS	11.33	65	95691	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
48) SS Toluene-d8_MS	14.65	98	327525	12.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.94%#			
65) SS 4-BFB_MS	18.13	95	128857	13.41	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.11%#			
83) SS 1,2-DCB-d4_MS	19.75	152	138658	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
90) SS 2,5-DBT_MS	23.36	250	25727	14.32	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 35.79%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	103983	11.580	ug/L	99
3) chloromethane	3.19	50	91726	9.879	ug/L	100
4) vinyl chloride	3.34	62	44632	8.999	ug/L	100
5) bromomethane	3.99	94	45838	8.653	ug/L	99
6) chloroethane	4.11	64	57305	10.260	ug/L	98
7) trichlorofluoromethane	4.52	101	123630	10.494	ug/L	99
8) diethyl ether	5.02	59	64977	11.374	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	84181	12.078	ug/L	96
10) acrolein	5.27	56	7273	10.735	ug/L	96
11) acetone	5.39	43	20604	11.501	ug/L	98
12) 1,1-dichloroethene	5.61	96	78878	10.778	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	34099	67.728	ug/L #	82
15) methylene chloride	6.55	84	87611	10.676	ug/L	100
16) carbon disulfide	6.57	76	233920	11.062	ug/L	100
17) acrylonitrile	6.82	53	36171	12.980	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	451396	27.928	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	87734	12.551	ug/L	98
20) hexane	7.28	57	129654	15.233	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	305985	14.224	ug/L	98
22) vinyl acetate	8.05	43	142119	12.142	ug/L	98
23) 1,1-dichloroethane	8.05	63	162892	12.590	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	269357	15.242	ug/L	96
25) 2,2-dichloropropane	9.25	77	119382	14.601	ug/L	95
26) cis-1,2-dichloroethene	9.36	61	127369	12.651	ug/L	99
27) 2-butanone(MEK)	8.96	43	35397	13.713	ug/L	98
28) bromochloromethane	10.08	128	46322	12.141	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	24632	14.751	ug/L	96
30) chloroform	9.71	83	155938	12.185	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	129263	12.807	ug/L	98
33) carbon tetrachloride	11.17	117	108911	12.061	ug/L	99
34) 1,1-dichloropropene	10.96	75	127800	12.878	ug/L	97
36) tert-amyl methyl ether(TAM	11.24	73	232612	16.759	ug/L #	90
37) benzene	11.55	78	373237	11.998	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:45:48 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

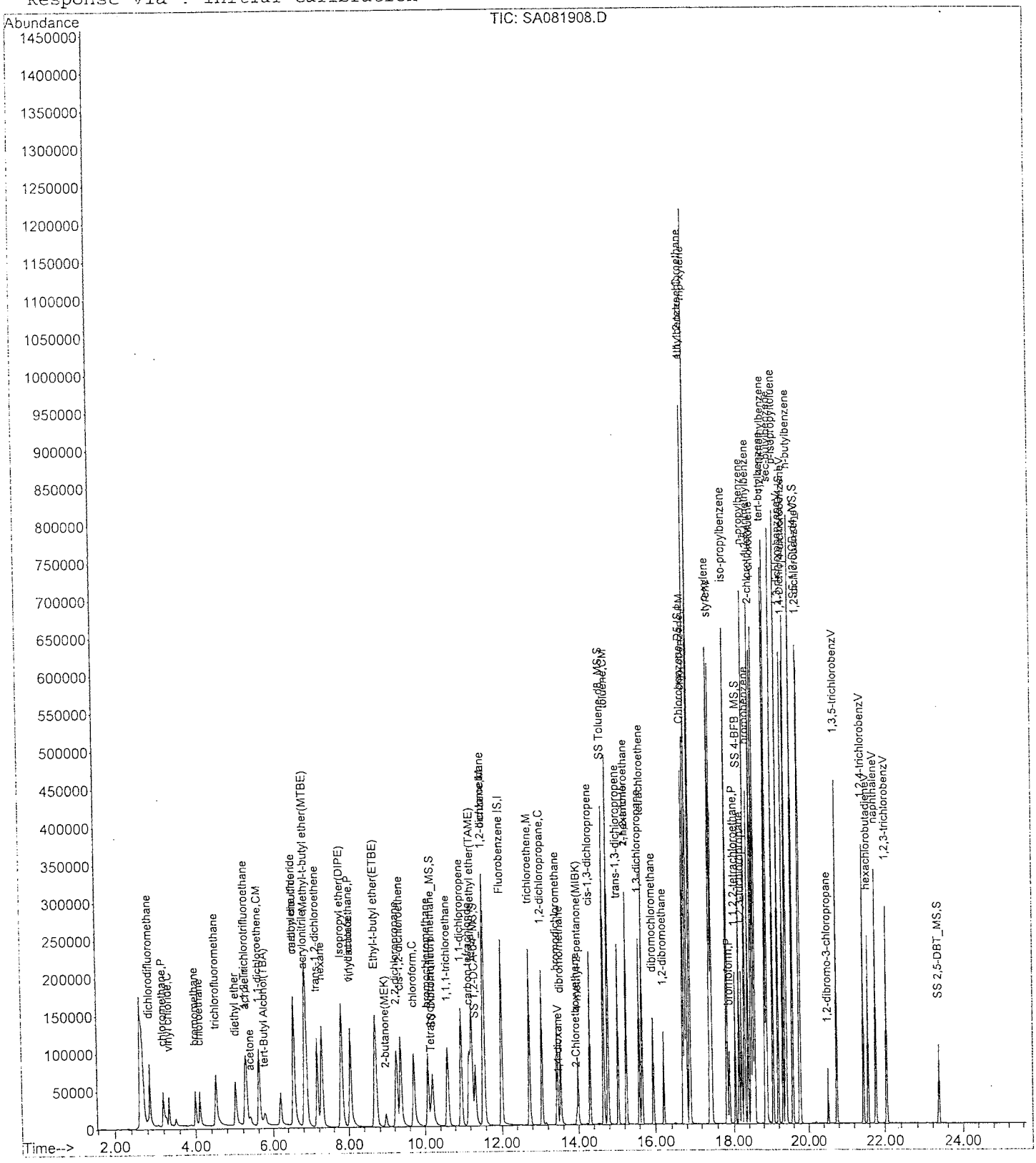
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	129205	12.664 ug/L	99
39) trichloroethene	12.73	95	96961	12.370 ug/L	99
40) 1,2-dichloropropane	13.05	63	92382	12.060 ug/L	98
41) 1,4-dioxaneV	13.48	88	1968m	30.662 ug/L	
42) dibromomethane	13.53	93	52221	11.488 ug/L	97
43) bromodichloromethane	13.44	83	107082	11.819 ug/L	99
44) 2-Chloroethoxyethene	13.94	63	6324	15.143 ug/L #	39
45) 4-methyl-2-pentanone(MIBK)	13.99	58	28342	12.415 ug/L	96
46) cis-1,3-dichloropropene	14.30	75	129780	12.108 ug/L	95
49) toluene	14.77	91	410451	12.385 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	120388	12.140 ug/L	97
51) 1,1,2-trichloroethane	15.25	83	63183	12.021 ug/L	98
52) 2-hexanone	15.25	43	49786	13.782 ug/L	98
53) tetrachloroethene	15.67	166	106655	12.004 ug/L	98
54) 1,3-dichloropropane	15.60	76	135583	12.013 ug/L	94
55) dibromochloromethane	15.95	129	74599	11.713 ug/L #	100
56) 1,2-dibromoethane	16.22	107	78816	12.354 ug/L	99
57) chlorobenzene	16.74	112	277043	12.090 ug/L	97
58) 1,1,1,2-tetrachloroethane	16.79	131	86783	12.192 ug/L	99
59) ethylbenzene	16.79	91	472657	12.821 ug/L	99
60) mp-xylene	16.89	106	380544	25.430 ug/L	98
61) o-xylene	17.41	106	183867	12.996 ug/L	98
62) styrene	17.46	104	305435	12.772 ug/L	98
63) bromoform	17.89	173	40886	10.998 ug/L	98
64) iso-propylbenzene	17.83	105	440848	13.197 ug/L	99
67) bromobenzene	18.38	156	118350	12.317 ug/L	97
68) 1,1,2,2-tetrachloroethane	18.04	83	92315	11.935 ug/L	99
69) 1,2,3-trichloropropane	18.21	110	29775	12.292 ug/L	99
71) n-propylbenzene	18.28	91	559856	13.103 ug/L	99
72) 2-chlorotoluene	18.51	91	340614	12.635 ug/L	99
73) 4-chlorotoluene	18.56	91	348025	12.818 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	398336	13.247 ug/L	99
75) tert-butylbenzene	18.84	119	350839	13.281 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	411467	13.194 ug/L	99
77) sec-butylbenzene	19.06	105	495753	13.260 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	229470	12.718 ug/L	99
79) p-isopropyltoluene	19.19	119	426581	13.464 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	228211	12.402 ug/L	96
81) 1,2-dichlorobenzeneV	19.78	146	212093	12.409 ug/L #	95
82) n-butylbenzene	19.58	91	360458	13.205 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	15958	12.693 ug/L	96
85) 1,3,5-trichlorobenzV	20.75	180	129782	12.502 ug/L	97
86) 1,2,4-trichlorobenzV	21.44	180	109868	12.958 ug/L	98
87) hexachlorobutadieneV	21.56	225	46830	11.546 ug/L	98
88) naphthaleneV	21.76	128	281673	12.878 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	92922	12.667 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081908.D Vial: 8
Acq On : 19 Aug 2013 12:27 pm Operator: BAM
Sample : 10 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	331394	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	262215	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	141362	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79273	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.42%#			
35) SS 1,2-DCA-d4_MS	11.34	65	93143	12.50	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.01%#			
48) SS Toluene-d8_MS	14.66	98	333434	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.10%#			
65) SS 4-BFB_MS	18.13	95	131321	13.44	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.43%#			
83) SS 1,2-DCB-d4_MS	19.75	152	141700	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.23%#			
90) SS 2,5-DBT_MS	23.36	250	57521	25.16	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 62.90%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	194683	21.569	ug/L	99
3) chloromethane	3.19	50	172058	18.434	ug/L	100
4) vinyl chloride	3.34	62	80711	19.168	ug/L	99
5) bromomethane	3.99	94	93850	17.624	ug/L	99
6) chloroethane	4.11	64	109554	19.514	ug/L	99
7) trichlorofluoromethane	4.52	101	236579	19.977	ug/L	99
8) diethyl ether	5.02	59	124100	21.610	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	162837	23.243	ug/L	96
10) acrolein	5.27	56	13820	20.293	ug/L	93
11) acetone	5.39	43	38187	21.205	ug/L	94
12) 1,1-dichloroethene	5.61	96	161233	21.917	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	68924	136.190	ug/L #	81
15) methylene chloride	6.55	84	176392	21.383	ug/L	99
16) carbon disulfide	6.57	76	481336	22.645	ug/L	98
17) acrylonitrile	6.81	53	68378	24.411	ug/L	97
18) Methyl-t-butyl ether(MTBE)	6.85	73	881551	54.260	ug/L	96
19) trans-1,2-dichloroethene	7.15	96	180020	25.621	ug/L	98
20) hexane	7.28	57	259325	30.310	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	625967	28.948	ug/L	98
22) vinyl acetate	8.05	43	313110	26.613	ug/L	98
23) 1,1-dichloroethane	8.05	63	333509	25.643	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	547829	30.840	ug/L #	96
25) 2,2-dichloropropane	9.25	77	260109	31.648	ug/L	94
26) cis-1,2-dichloroethene	9.36	61	262646	25.952	ug/L	98
27) 2-butanone(MEK)	8.96	43	66318	25.559	ug/L	98
28) bromochloromethane	10.08	128	93545	24.392	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	46286	27.576	ug/L	95
30) chloroform	9.71	83	317565	24.686	ug/L	99
32) 1,1,1-trichloroethane	10.60	97	268761	26.490	ug/L	98
33) carbon tetrachloride	11.17	117	231829	25.540	ug/L	99
34) 1,1-dichloropropene	10.96	75	264778	26.543	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	476650	29.225	ug/L #	89
37) benzene	11.55	78	762700	24.390	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081909.D 5VID0819.M Fri Aug 23 12:53:26 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

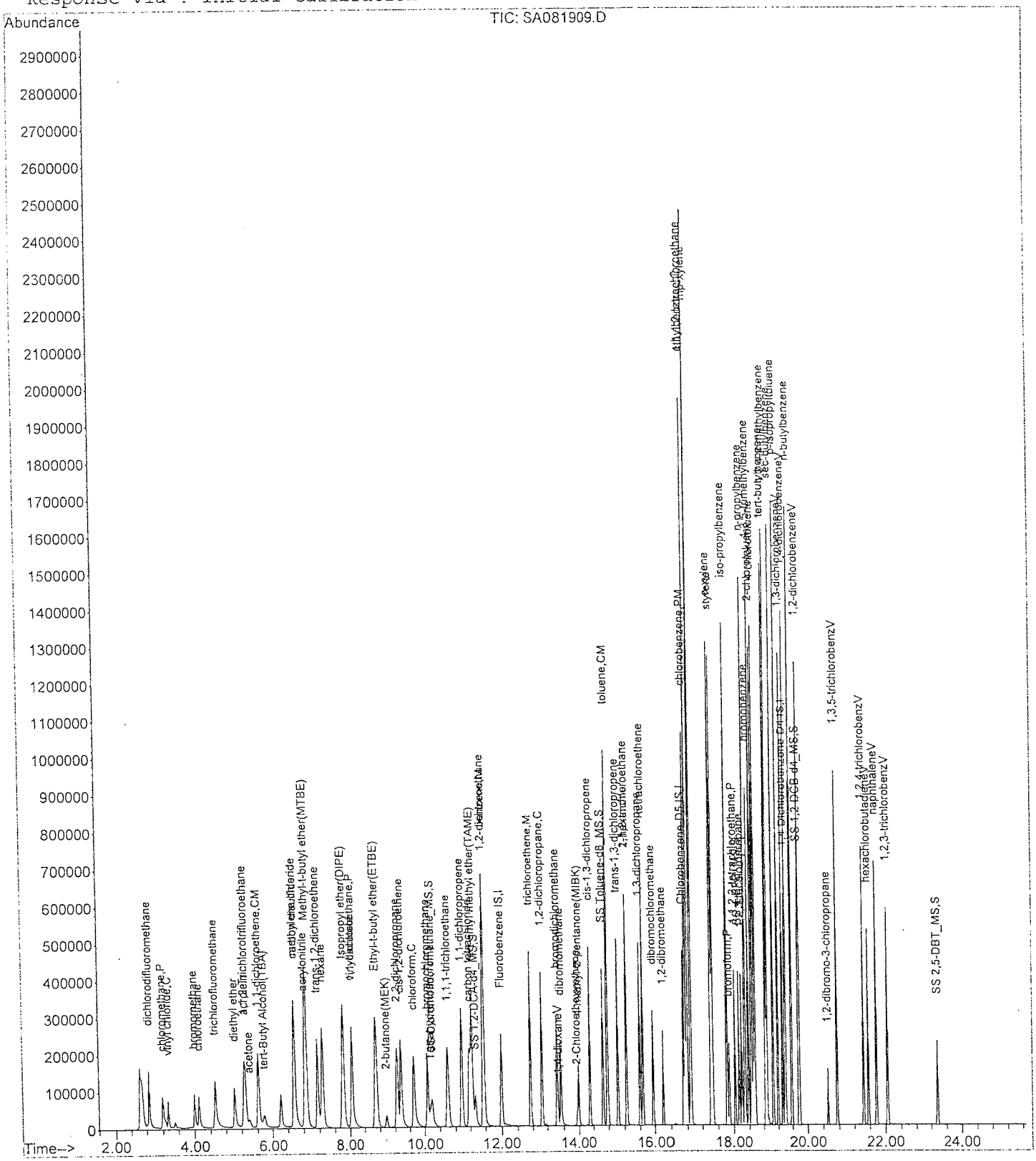
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	259670	25.320 ug/L	99
39) trichloroethene	12.73	95	194776	24.721 ug/L	99
40) 1,2-dichloropropane	13.05	63	190971	24.800 ug/L	99
41) 1,4-dioxaneV	13.48	88	3928	60.883 ug/L #	95
42) dibromomethane	13.53	93	106873	23.390 ug/L	98
43) bromodichloromethane	13.44	83	226478	24.868 ug/L	100
44) 2-Chloroethoxyethene	13.95	63	17614	25.124 ug/L	83
45) 4-methyl-2-pentanone(MIBK)	13.99	58	54532	23.765 ug/L	94
46) cis-1,3-dichloropropene	14.30	75	277015	23.797 ug/L	97
49) toluene	14.77	91	844209	25.055 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	261053	24.399 ug/L	98
51) 1,1,2-trichloroethane	15.25	83	128699	24.083 ug/L	98
52) 2-hexanone	15.25	43	95466	25.993 ug/L	98
53) tetrachloroethene	15.67	166	219087	24.254 ug/L	98
54) 1,3-dichloropropane	15.60	76	275697	24.026 ug/L	95
55) dibromochloromethane	15.95	129	166130	22.936 ug/L #	100
56) 1,2-dibromoethane	16.22	107	163336	25.182 ug/L	99
57) chlorobenzene	16.74	112	574991	24.679 ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	183999	25.425 ug/L	100
59) ethylbenzene	16.79	91	975608	26.028 ug/L	99
60) mp-xylene	16.89	106	783338	51.486 ug/L	98
61) o-xylene	17.41	106	380027	26.420 ug/L	98
62) styrene	17.46	104	640234	26.331 ug/L	99
63) bromoform	17.89	173	95889	21.653 ug/L	99
64) iso-propylbenzene	17.83	105	917040	27.000 ug/L	100
67) bromobenzene	18.38	156	243213	25.026 ug/L	98
68) 1,1,2,2-tetrachloroethane	18.04	83	195871	25.037 ug/L	100
69) 1,2,3-trichloropropane	18.21	110	60559	24.718 ug/L	99
71) n-propylbenzene	18.28	91	1162564	26.902 ug/L	100
72) 2-chlorotoluene	18.51	91	701060	25.711 ug/L	99
73) 4-chlorotoluene	18.56	91	714685	26.025 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	818531	26.913 ug/L	99
75) tert-butylbenzene	18.84	119	723532	27.080 ug/L	97
76) 1,2,4-trimethylbenzene	18.89	105	842876	26.723 ug/L	99
77) sec-butylbenzene	19.06	105	1021831	27.023 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	475266	26.042 ug/L	100
79) p-isopropyltoluene	19.19	119	887637	27.700 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	472725	25.400 ug/L	99
81) 1,2-dichlorobenzeneV	19.78	146	439455	25.422 ug/L	99
82) n-butylbenzene	19.58	91	755022	27.347 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	35245	24.044 ug/L	97
85) 1,3,5-trichlorobenzV	20.75	180	273191	26.019 ug/L	98
86) 1,2,4-trichlorobenzV	21.44	180	228467	26.642 ug/L	99
87) hexachlorobutadieneV	21.56	225	99180	24.177 ug/L	97
88) naphthaleneV	21.76	128	592008	26.760 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	196079	26.428 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081909.D Vial: 9
Acq On : 19 Aug 2013 1:01 pm Operator: BAM
Sample : 20 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:46 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	335931	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266092	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145060	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80333	12.44	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.38%#			
35) SS 1,2-DCA-d4_MS	11.33	65	92083	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.65	98	334568	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.66%#			
65) SS 4-BFB_MS	18.13	95	132879	13.40	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.04%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145066	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.93%#			
90) SS 2,5-DBT_MS	23.36	250	168625	61.92	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 154.81%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	404367	54.224	ug/L	100
13) tert-Butyl Alcohol(TBA)	5.77	59	179792	350.461	ug/L #	81
15) methylene chloride	6.55	84	437281	52.294	ug/L	98
16) carbon disulfide	6.57	76	1230241	57.097	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	461213	64.753	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	1609210	73.412	ug/L	97
23) 1,1-dichloroethane	8.04	63	845028	64.096	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	1416425	78.659	ug/L #	96
25) 2,2-dichloropropane	9.25	77	662748	79.549	ug/L	92
26) cis-1,2-dichloroethene	9.36	61	669164	65.227	ug/L	99
28) bromochloromethane	10.08	128	245669	63.194	ug/L	100
30) chloroform	9.71	83	811929	62.262	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	694283	67.508	ug/L	98
33) carbon tetrachloride	11.17	117	616174	66.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	674265	66.679	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	1249604	68.040	ug/L #	89
37) benzene	11.55	78	1949369	61.496	ug/L	99
38) 1,2-dichloroethane	11.54	62	655023	63.007	ug/L	99
39) trichloroethene	12.73	95	503338	63.021	ug/L	99
40) 1,2-dichloropropane	13.05	63	492015	63.032	ug/L	99
42) dibromomethane	13.53	93	281102	60.690	ug/L	97
43) bromodichloromethane	13.44	83	610134	66.090	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	735714	59.589	ug/L	98
49) toluene	14.77	91	2153729	62.989	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	705358	62.775	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	334663	61.713	ug/L	99
53) tetrachloroethene	15.67	166	568485	62.017	ug/L	97
54) 1,3-dichloropropane	15.60	76	712001	61.143	ug/L	96
55) dibromochloromethane	15.95	129	463357	59.045	ug/L #	99
56) 1,2-dibromoethane	16.22	107	430648	65.427	ug/L	100
57) chlorobenzene	16.74	112	1464220	61.931	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	484658	65.993	ug/L	99
59) ethylbenzene	16.79	91	2458719	64.641	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081910.D 5VID0819.M Fri Aug 23 12:53:34 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:47:50 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

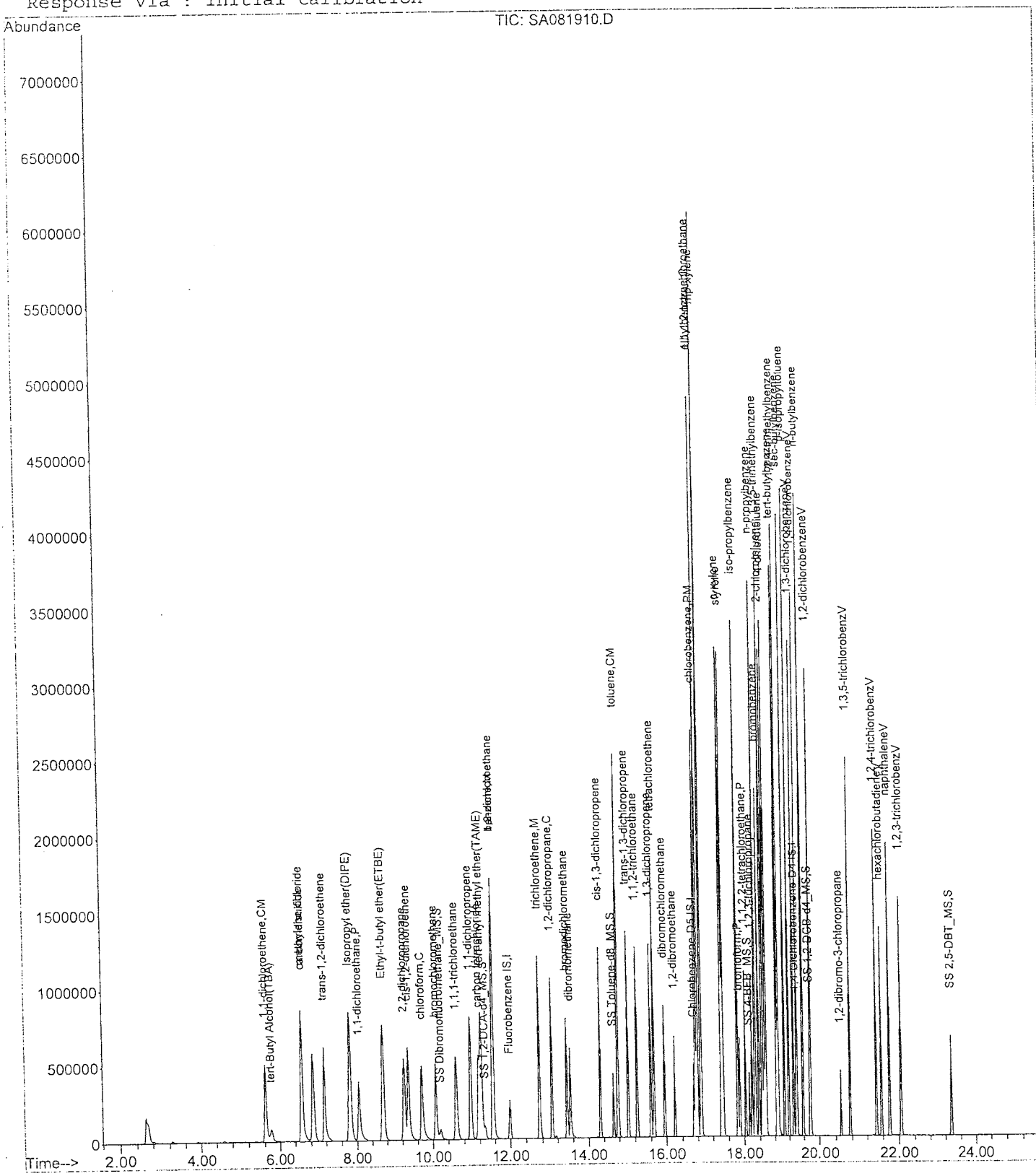
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
60) mp-xylene	16.89	106	1969523	127.564 ug/L	99
61) o-xylene	17.41	106	976890	66.924 ug/L	99
62) styrene	17.46	104	1639183	66.433 ug/L	99
63) bromoform	17.89	173	284834	57.904 ug/L	99
64) iso-propylbenzene	17.83	105	2327255	67.523 ug/L	99
67) bromobenzene	18.38	156	631462	63.320 ug/L	100
68) 1,1,2,2-tetrachloroethane	18.04	83	515825	64.253 ug/L	99
69) 1,2,3-trichloropropane	18.21	110	160290	63.755 ug/L	98
71) n-propylbenzene	18.29	91	2946454	66.444 ug/L	99
72) 2-chlorotoluene	18.51	91	1769997	63.260 ug/L	99
73) 4-chlorotoluene	18.56	91	1815730	64.434 ug/L	100
74) 1,3,5-trimethylbenzene	18.46	105	2098777	67.249 ug/L	100
75) tert-butylbenzene	18.84	119	1841012	67.148 ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	2149505	66.411 ug/L	99
77) sec-butylbenzene	19.06	105	2621616	67.563 ug/L	100
78) 1,3-dichlorobenzeneV	19.32	146	1227456	65.545 ug/L	100
79) p-isopropyltoluene	19.19	119	2264722	68.872 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	1224592	64.122 ug/L	97
81) 1,2-dichlorobenzeneV	19.78	146	1142498	64.407 ug/L	97
82) n-butylbenzene	19.58	91	1932849	68.224 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	103649	63.117 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	723845	67.184 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	618016	70.231 ug/L	98
87) hexachlorobutadieneV	21.56	225	264933	62.936 ug/L	98
88) naphthaleneV	21.76	128	1614517	71.120 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	527857	69.332 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081910.D Vial: 10
Acq On : 19 Aug 2013 1:36 pm Operator: BAM
Sample : 50 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:48 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:49:27 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

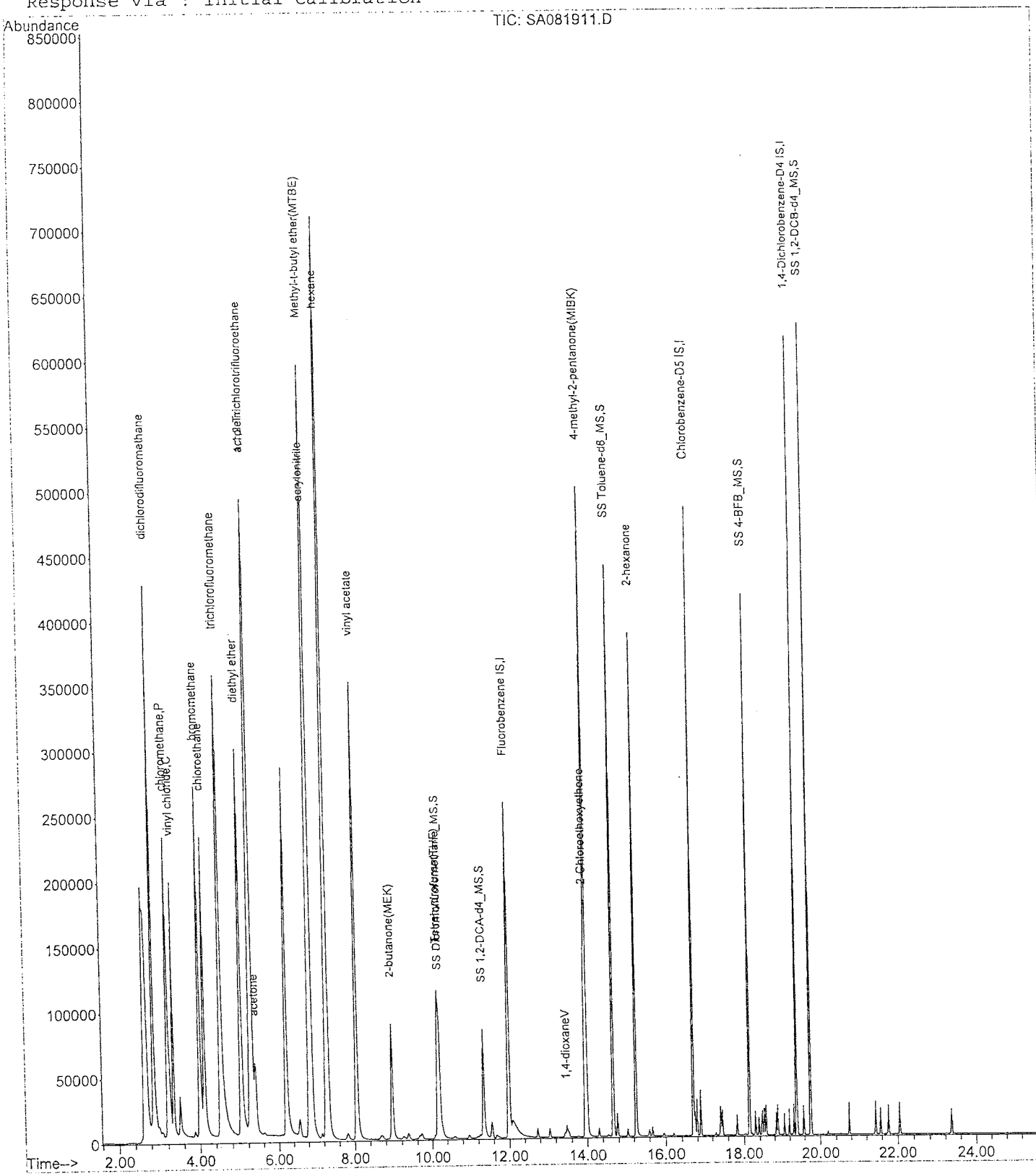
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	339880	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	264197	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	137469	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80106	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.58%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98674	12.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 129.13%#			
48) SS Toluene-d8_MS	14.65	98	339243	13.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.37%#			
65) SS 4-BFB_MS	18.13	95	130822	13.29	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.91%#			
83) SS 1,2-DCB-d4_MS	19.75	152	137890	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	536684	57.975	ug/L	99
3) chloromethane	3.19	50	467373	48.825	ug/L	100
4) vinyl chloride	3.34	62	223715	58.149	ug/L	99
5) bromomethane	3.99	94	285806	52.332	ug/L	99
6) chloroethane	4.11	64	305322	53.027	ug/L	98
7) trichlorofluoromethane	4.52	101	654087	53.854	ug/L	100
8) diethyl ether	5.02	59	339800	57.693	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	444771	61.901	ug/L	96
10) acrolein	5.27	56	34215	48.986	ug/L	99
11) acetone	5.39	43	102610	55.557	ug/L	94
17) acrylonitrile	6.82	53	179793	62.583	ug/L	92
18) Methyl-t-butyl ether(MTBE)	6.85	73	1170515	70.247	ug/L	96
20) hexane	7.28	57	714260	81.398	ug/L	99
22) vinyl acetate	8.05	43	882898	73.168	ug/L	98
27) 2-butanone(MEK)	8.96	43	186374	70.034	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	126802	73.659	ug/L	99
41) 1,4-dioxaneV	13.48	88	8590	129.819	ug/L #	73
44) 2-Chloroethoxyethene	13.95	63	69776	62.078	ug/L #	34
45) 4-methyl-2-pentanone(MIBK)	13.98	58	156553	66.521	ug/L	93
52) 2-hexanone	15.25	43	264972	71.605	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081911.D Vial: 11
Acq On : 19 Aug 2013 2:10 pm Operator: BAM
Sample : 50G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	353825	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282298	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	152949	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	85350	12.55	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.46%#			
35) SS 1,2-DCA-d4_MS	11.34	65	94152	11.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 118.36%			
48) SS Toluene-d8_MS	14.66	98	358167	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.82%#			
65) SS 4-BFB_MS	18.13	95	141281	13.43	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.33%#			
83) SS 1,2-DCB-d4_MS	19.75	152	154664	12.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.35%#			
90) SS 2,5-DBT_MS	23.36	250	352397	117.47	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 293.68%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	798847	101.704	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	355261	657.474	ug/L #	80
15) methylene chloride	6.55	84	850186	96.531	ug/L	98
16) carbon disulfide	6.57	76	2482263	109.378	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	920269	122.670	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	3172223	137.398	ug/L	97
23) 1,1-dichloroethane	8.04	63	1684741	121.326	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	2805631	147.928	ug/L #	96
25) 2,2-dichloropropane	9.24	77	1282370	146.138	ug/L	91
26) cis-1,2-dichloroethene	9.36	61	1322120	122.356	ug/L	100
28) bromochloromethane	10.08	128	491792	120.107	ug/L	99
30) chloroform	9.71	83	1615352	117.607	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	1388303	128.163	ug/L	98
33) carbon tetrachloride	11.17	117	1249650	128.945	ug/L	100
34) 1,1-dichloropropene	10.96	75	1344519	126.238	ug/L	100
36) tert-amyl methyl ether(TAM	11.24	73	2507528	125.323	ug/L #	89
37) benzene	11.56	78	3851284	115.350	ug/L	100
38) 1,2-dichloroethane	11.54	62	1269827	115.967	ug/L	99
39) trichloroethene	12.73	95	1012659	120.379	ug/L	99
40) 1,2-dichloropropane	13.05	63	981918	119.433	ug/L	98
42) dibromomethane	13.53	93	565072	115.829	ug/L	97
43) bromodichloromethane	13.44	83	1230530	126.551	ug/L	100
46) cis-1,3-dichloropropene	14.30	75	1482469	112.444	ug/L	99
49) toluene	14.77	91	4211772	116.108	ug/L	100
50) trans-1,3-dichloropropene	15.03	75	1416003	117.611	ug/L	99
51) 1,1,2-trichloroethane	15.25	83	670993	116.630	ug/L	99
53) tetrachloroethene	15.67	166	1142360	117.467	ug/L	96
54) 1,3-dichloropropane	15.60	76	1412274	114.317	ug/L	98
55) dibromochloromethane	15.95	129	962973	113.474	ug/L #	100
56) 1,2-dibromoethane	16.22	107	868314	124.347	ug/L	99
57) chlorobenzene	16.74	112	2877344	114.714	ug/L	99
58) 1,1,1,2-tetrachloroethane	16.79	131	950257	121.963	ug/L	99
59) ethylbenzene	16.79	91	4650465	115.244	ug/L	99

(#) = qualifier out of range (m) = manual integration
SA081912.D 5VID0819.M Fri Aug 23 12:53:50 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:50:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

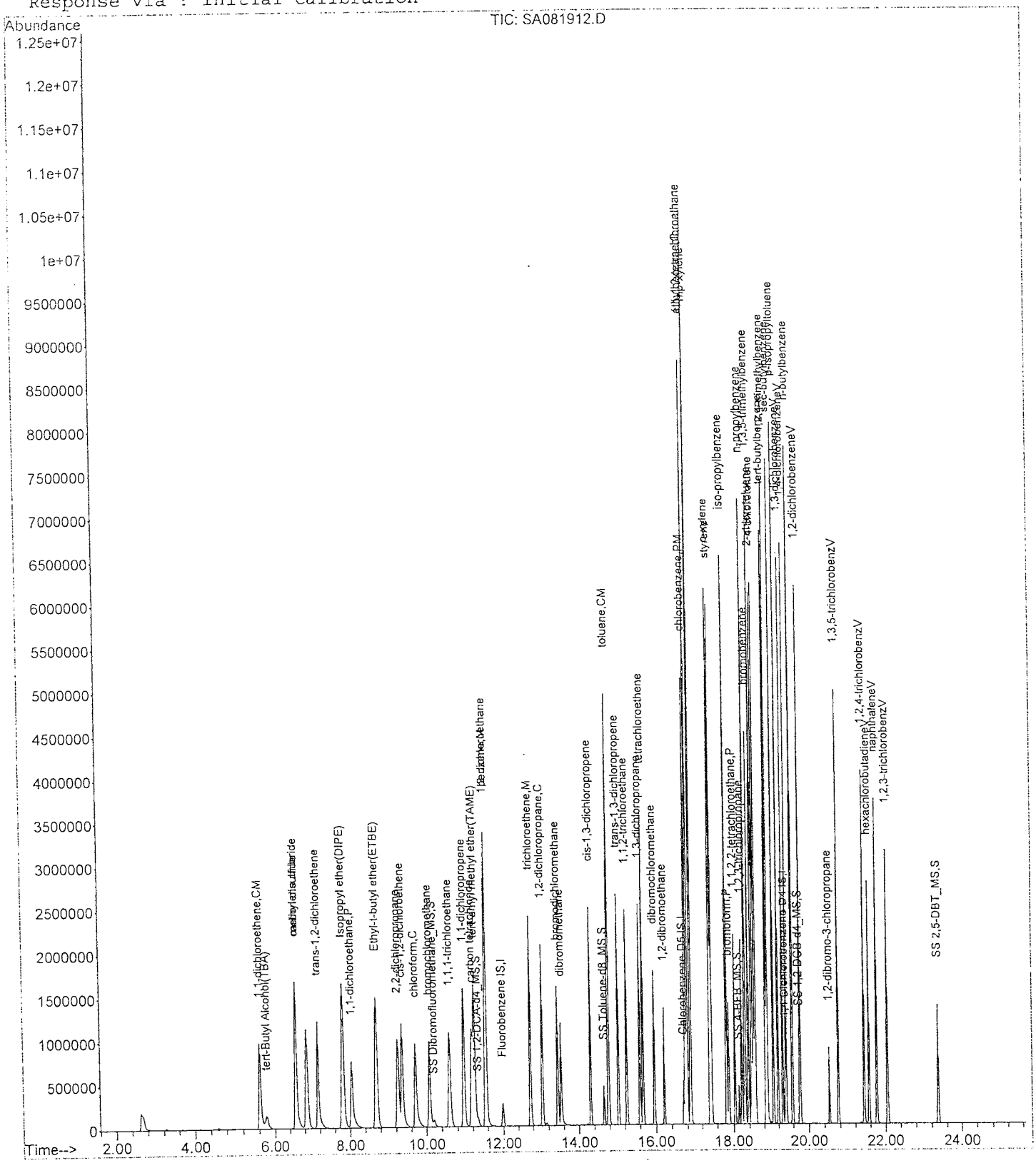
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.89	106	3612368	220.538	ug/L	100
61) o-xylene	17.42	106	1899543	122.662	ug/L	99
62) styrene	17.46	104	3197383	122.145	ug/L	99
63) bromoform	17.89	173	605915	113.249	ug/L	99
64) iso-propylbenzene	17.83	105	4489644	122.785	ug/L	99
67) bromobenzene	18.38	156	1256098	119.458	ug/L	99
68) 1,1,2,2-tetrachloroethane	18.04	83	1018500	120.324	ug/L	99
69) 1,2,3-trichloropropane	18.21	110	317030	119.595	ug/L	98
71) n-propylbenzene	18.29	91	5661535	121.085	ug/L	98
72) 2-chlorotoluene	18.52	91	3508936	118.941	ug/L	100
73) 4-chlorotoluene	18.56	91	3397503	114.346	ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	4047113	122.989	ug/L	100
75) tert-butylbenzene	18.85	119	3540878	122.486	ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	4082099	119.614	ug/L	99
77) sec-butylbenzene	19.06	105	4997923	122.160	ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	2402007	121.648	ug/L	99
79) p-isopropyltoluene	19.19	119	4286623	123.635	ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	2394949	118.935	ug/L	96
81) 1,2-dichlorobenzeneV	19.78	146	2232663	119.371	ug/L	96
82) n-butylbenzene	19.58	91	3684328	123.339	ug/L	98
84) 1,2-dibromo-3-chloropropan	20.52	157	217589	122.591	ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	1460642	128.577	ug/L	98
86) 1,2,4-trichlorobenzV	21.44	180	1245911	134.281	ug/L	98
87) hexachlorobutadieneV	21.56	225	539972	121.657	ug/L	98
88) naphthaleneV	21.76	128	3216106	134.363	ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	1068249	133.073	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081912.D Vial: 12
Acq On : 19 Aug 2013 2:44 pm Operator: BAM
Sample : 100 Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:51 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:52:33 2013 Quant Results File: 5VID0819.RES

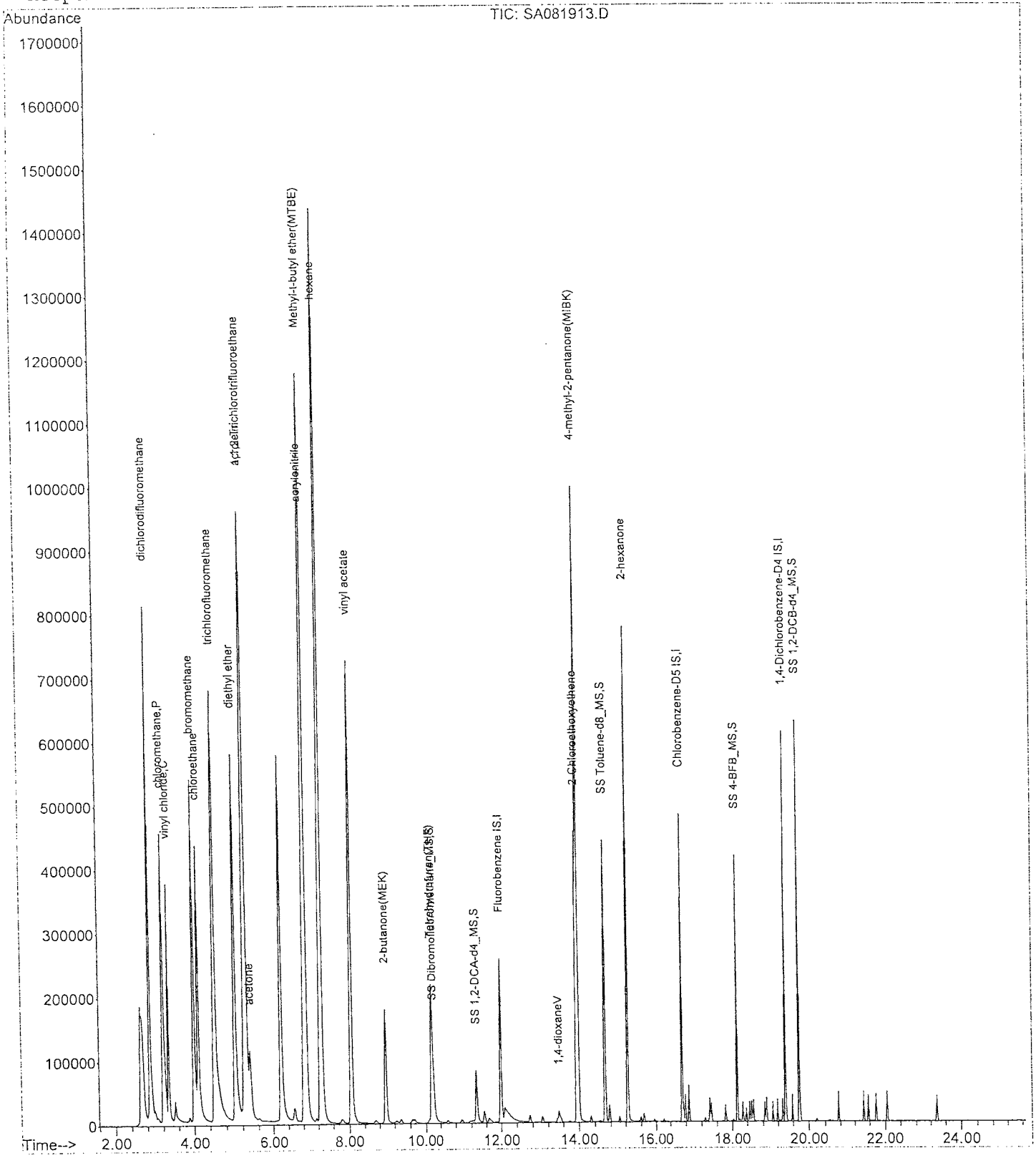
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	340007	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	266108	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	139054	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	80456	12.31	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 123.07%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98415	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.74%#			
48) SS Toluene-d8_MS	14.65	98	342489	13.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 130.67%#			
65) SS 4-BFB_MS	18.13	95	130668	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.80%#			
83) SS 1,2-DCB-d4_MS	19.75	152	139162	12.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.02%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	1095162	118.259	ug/L	100
3) chloromethane	3.19	50	916541	95.712	ug/L	100
4) vinyl chloride	3.33	62	418278	111.919	ug/L	98
5) bromomethane	3.99	94	608805	111.432	ug/L	99
6) chloroethane	4.11	64	592527	102.868	ug/L	99
7) trichlorofluoromethane	4.52	101	1285573	105.807	ug/L	100
8) diethyl ether	5.02	59	671885	114.034	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	878654	122.241	ug/L	96
10) acrolein	5.27	56	68419	97.919	ug/L	98
11) acetone	5.39	43	202643	109.678	ug/L	93
17) acrylonitrile	6.82	53	358412	124.710	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	2326818	139.589	ug/L	96
20) hexane	7.27	57	1450032	165.186	ug/L	99
22) vinyl acetate	8.05	43	1807134	149.706	ug/L	98
27) 2-butanone(MEK)	8.96	43	373366	140.248	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	254908	148.020	ug/L	99
41) 1,4-dioxaneV	13.48	88	18331	276.930	ug/L #	79
44) 2-Chloroethoxyethene	13.95	63	207200	132.384	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	318455	135.264	ug/L	87
52) 2-hexanone	15.25	43	535895	143.778	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081913.D Vial: 13
Acq On : 19 Aug 2013 3:19 pm Operator: BAM
Sample : 100G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352917	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	283633	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	153510	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	83172	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.57%#			
35) SS 1,2-DCA-d4_MS	11.34	65	91309	11.51	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 115.08%			
48) SS Toluene-d8_MS	14.66	98	355662	12.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.31%#			
65) SS 4-BFB_MS	18.13	95	139298	13.18	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 131.82%#			
83) SS 1,2-DCB-d4_MS	19.76	152	152678	12.62	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.24%#			
90) SS 2,5-DBT_MS	23.36	250	771525	249.92	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 624.79%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.61	96	1639315	209.245	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.86	59	729498	1353.541	ug/L #	80
15) methylene chloride	6.54	84	1690349	192.418	ug/L	97
16) carbon disulfide	6.57	76	4981979	220.091	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	1915096	255.935	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	6511629	282.763	ug/L	97
23) 1,1-dichloroethane	8.04	63	3480341	251.281	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	5811062	307.178	ug/L #	96
25) 2,2-dichloropropane	9.24	77	2749515	314.138	ug/L	89
26) cis-1,2-dichloroethene	9.36	61	2726180	252.944	ug/L	99
28) bromochloromethane	10.08	128	1027863	251.673	ug/L	99
30) chloroform	9.71	83	3356260	244.984	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	2901909	268.582	ug/L	97
33) carbon tetrachloride	11.17	117	2627635	271.829	ug/L	100
34) 1,1-dichloropropene	10.96	75	2780848	261.767	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	5282500	259.403	ug/L #	88
37) benzene	11.56	78	7736803	232.322	ug/L	100
38) 1,2-dichloroethane	11.54	62	2496597	228.589	ug/L	99
39) trichloroethene	12.73	95	2083327	248.290	ug/L	98
40) 1,2-dichloropropane	13.05	63	2045445	249.431	ug/L	97
42) dibromomethane	13.53	93	1169005	240.240	ug/L	96
43) bromodichloromethane	13.44	83	2581872	266.209	ug/L	99
46) cis-1,3-dichloropropene	14.30	75	3110944	234.689	ug/L	98
49) toluene	14.77	91	8201808	225.039	ug/L	99
50) trans-1,3-dichloropropene	15.04	75	2955640	242.915	ug/L	98
51) 1,1,2-trichloroethane	15.25	83	1405014	243.066	ug/L	98
53) tetrachloroethene	15.67	166	2315834	237.012	ug/L	95
54) 1,3-dichloropropane	15.60	76	2915417	234.879	ug/L	100
55) dibromochloromethane	15.95	129	2046120	237.426	ug/L #	99
56) 1,2-dibromoethane	16.22	107	1801957	256.835	ug/L	100
57) chlorobenzene	16.75	112	5651839	224.266	ug/L	100
58) 1,1,1,2-tetrachloroethane	16.79	131	1740580	222.348	ug/L	100
59) ethylbenzene	16.80	91	7911394	195.131	ug/L	98

(#) = qualifier out of range (m) = manual integration
SA081914.D 5VID0819.M Fri Aug 23 12:54:09 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:53:35 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

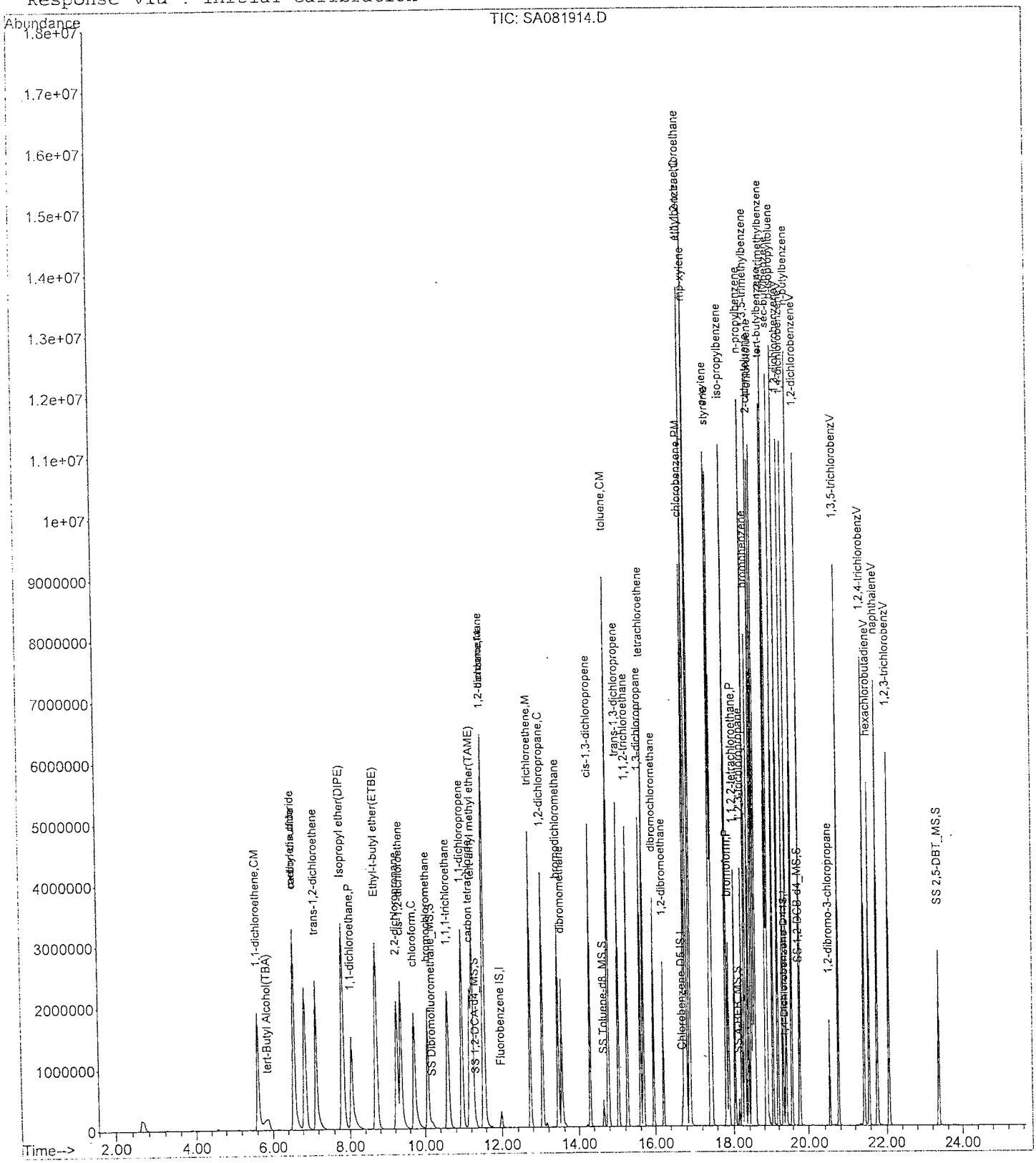
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) mp-xylene	16.89	106	5843928	355.097	ug/L	99
61) o-xylene	17.42	106	3620276	232.677	ug/L	99
62) styrene	17.46	104	5948127	226.157	ug/L	97
63) bromoform	17.89	173	1315128	241.348	ug/L	97
64) iso-propylbenzene	17.83	105	8256023	224.726	ug/L	98
67) bromobenzene	18.38	156	2519837	238.767	ug/L	96
68) 1,1,2,2-tetrachloroethane	18.04	83	2105043	247.777	ug/L	99
69) 1,2,3-trichloropropane	18.21	110	651168	244.746	ug/L	98
71) n-propylbenzene	18.29	91	10096001	215.138	ug/L	95
72) 2-chlorotoluene	18.52	91	6431269	217.201	ug/L	98
73) 4-chlorotoluene	18.56	91	6405595	214.798	ug/L	98
74) 1,3,5-trimethylbenzene	18.47	105	7324783	221.782	ug/L	99
75) tert-butylbenzene	18.85	119	6622103	228.234	ug/L	98
76) 1,2,4-trimethylbenzene	18.89	105	7265425	212.115	ug/L	99
77) sec-butylbenzene	19.06	105	8783820	213.911	ug/L	97
78) 1,3-dichlorobenzeneV	19.32	146	4477751	225.944	ug/L	99
79) p-isopropyltoluene	19.19	119	7531539	216.432	ug/L	97
80) 1,4-dichlorobenzeneV	19.43	146	4465428	220.947	ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	4209219	224.227	ug/L	96
82) n-butylbenzene	19.59	91	6556792	218.698	ug/L	96
84) 1,2-dibromo-3-chloropropan	20.52	157	456270	252.746	ug/L	99
85) 1,3,5-trichlorobenzV	20.75	180	2915062	255.668	ug/L	97
86) 1,2,4-trichlorobenzV	21.44	180	2543411	273.120	ug/L	97
87) hexachlorobutadieneV	21.56	225	1138311	255.527	ug/L	97
88) naphthaleneV	21.77	128	6413602	266.969	ug/L	100
89) 1,2,3-trichlorobenzV	22.06	180	2198315	272.846	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081914.D Vial: 14
Acq On : 19 Aug 2013 3:53 pm Operator: BAM
Sample : 200 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:54:51 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

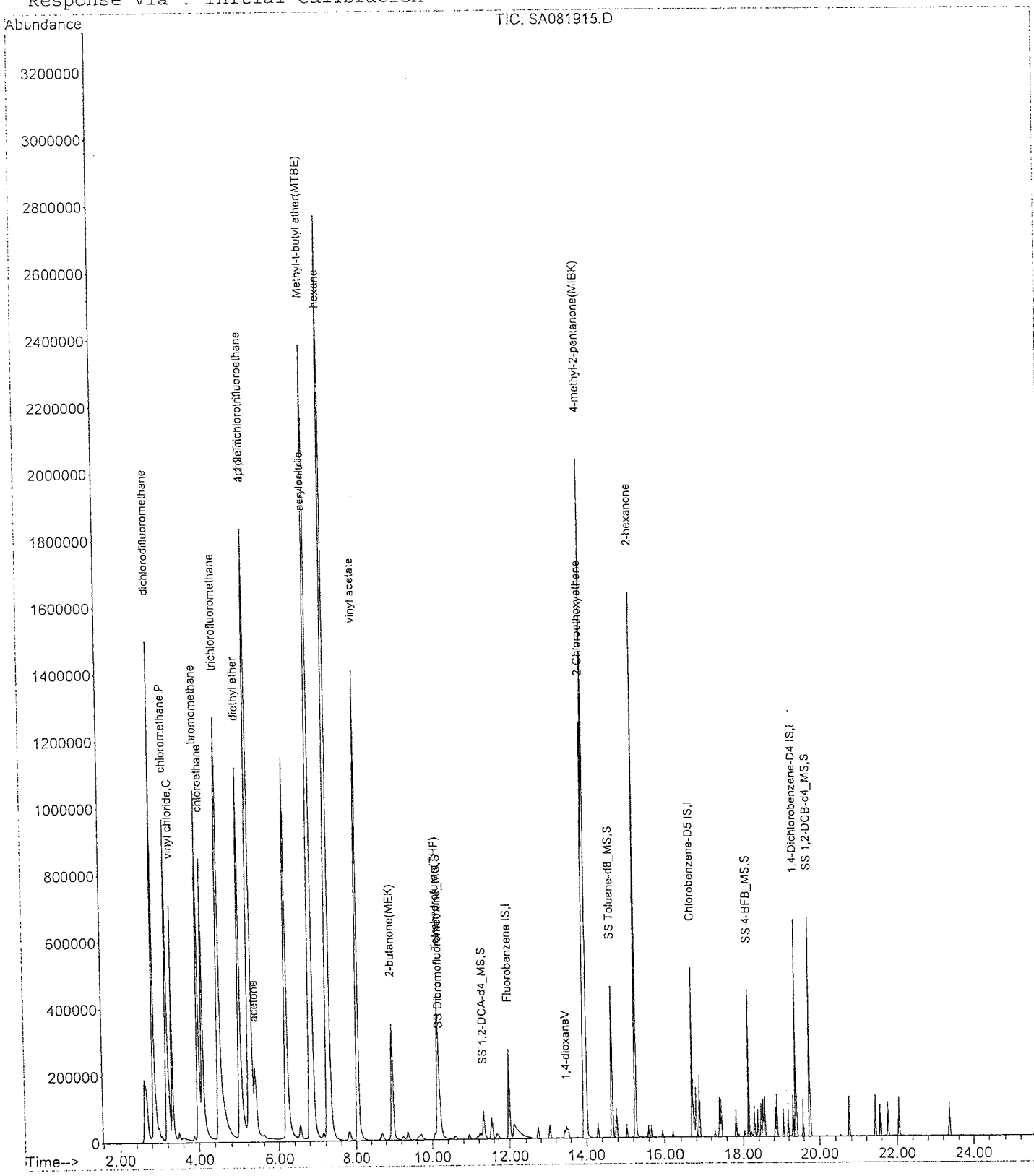
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356797	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	279401	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	145819	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84203	12.27	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.74%#			
35) SS 1,2-DCA-d4_MS	11.33	65	101012	12.59	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.92%#			
48) SS Toluene-d8_MS	14.65	98	354222	12.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.72%#			
65) SS 4-BFB_MS	18.13	95	137774	13.24	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.36%#			
83) SS 1,2-DCB-d4_MS	19.75	152	145313	12.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.48%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	2171742	223.476	ug/L	100
3) chloromethane	3.18	50	1860747	185.169	ug/L	100
4) vinyl chloride	3.32	62	783027	202.579	ug/L	99
5) bromomethane	3.98	94	1244891	217.135	ug/L	99
6) chloroethane	4.10	64	1161779	192.205	ug/L	99
7) trichlorofluoromethane	4.51	101	2517167	197.422	ug/L	99
8) diethyl ether	5.02	59	1315712	212.798	ug/L	100
9) 1,1,2-Trichlorotrifluoroet	5.27	101	1723484	228.492	ug/L	95
10) acrolein	5.27	56	137288	187.236	ug/L	98
11) acetone	5.39	43	399475	206.036	ug/L	94
17) acrylonitrile	6.82	53	722347	239.515	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	4757111	271.956	ug/L #	95
20) hexane	7.27	57	2854505	309.879	ug/L	98
22) vinyl acetate	8.05	43	3538301	279.325	ug/L	99
27) 2-butanone(MEK)	8.96	43	758375	271.465	ug/L	100
29) Tetrahydrofuran(THF)	10.15	42	517422	286.317	ug/L	100
41) 1,4-dioxaneV	13.49	88	37226	535.915	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	579288	250.204	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	651623	263.753	ug/L	82
52) 2-hexanone	15.25	43	1089936	278.512	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081915.D Vial: 15
Acq On : 19 Aug 2013 4:28 pm Operator: BAM
Sample : 200G Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	361117	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.70	117	297048	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.40	152	157098	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	86530	12.46	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.63%#			
35) SS 1,2-DCA-d4_MS	11.34	65	92177	11.35	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 113.53%			
48) SS Toluene-d8_MS	14.66	98	370428	12.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.61%#			
65) SS 4-BFB_MS	18.14	95	146929	13.28	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 132.77%#			
83) SS 1,2-DCB-d4_MS	19.76	152	153858	12.43	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.31%#			
90) SS 2,5-DBT_MS	23.36	250	1176146	369.66	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 924.15%#			
Target Compounds						Qvalue
12) 1,1-dichloroethene	5.60	96	2351713	293.360	ug/L	98
13) tert-Butyl Alcohol(TBA)	5.94	59	1071899m	1943.685	ug/L	
15) methylene chloride	6.54	84	2373457	264.044	ug/L	96
16) carbon disulfide	6.56	76	6989642	301.772	ug/L	99
19) trans-1,2-dichloroethene	7.14	96	2825884	369.078	ug/L	99
21) Isopropyl ether(DIPE)	7.82	45	9466436	401.740	ug/L	97
23) 1,1-dichloroethane	8.04	63	5164363	364.400	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	8575182	442.999	ug/L #	95
25) 2,2-dichloropropane	9.25	77	3897354	435.170	ug/L #	88
26) cis-1,2-dichloroethene	9.36	61	4000822	362.780	ug/L	98
28) bromochloromethane	10.08	128	1530647	366.270	ug/L	98
30) chloroform	9.71	83	4978228	355.126	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	4235914	383.147	ug/L	97
33) carbon tetrachloride	11.17	117	3829009	387.117	ug/L	99
34) 1,1-dichloropropene	10.96	75	4029861	370.726	ug/L	97
36) tert-amyl methyl ether(TAM	11.25	73	7865850	375.326	ug/L #	87
37) benzene	11.56	78	10778944	316.322	ug/L	99
38) 1,2-dichloroethane	11.54	62	3507010	313.812	ug/L	99
39) trichloroethene	12.73	95	3049607	355.198	ug/L	98
40) 1,2-dichloropropane	13.05	63	2986704	355.943	ug/L	96
42) dibromomethane	13.53	93	1714518	344.346	ug/L	96
43) bromodichloromethane	13.44	83	3810484	383.966	ug/L	99
46) cis-1,3-dichloropropene	14.31	75	4524780	332.879	ug/L	97
49) toluene	14.77	91	11176932	292.820	ug/L	98
50) trans-1,3-dichloropropene	15.04	75	4253809	333.325	ug/L	97
51) 1,1,2-trichloroethane	15.25	83	2050277	338.678	ug/L	98
53) tetrachloroethene	15.68	166	3280022	320.531	ug/L	94
54) 1,3-dichloropropane	15.60	76	4181659	321.679	ug/L	99
55) dibromochloromethane	15.95	129	3005809	332.115	ug/L #	99
56) 1,2-dibromoethane	16.22	107	2663210	362.448	ug/L	99
57) chlorobenzene	16.75	112	7716586	292.368	ug/L	98
58) 1,1,1,2-tetrachloroethane	16.79	131	2279636	278.057	ug/L	99
59) ethylbenzene	16.80	91	9741323	229.414	ug/L	98

(#) = qualifier out of range (m) = manual integration
SA081916.D 5VID0819.M Fri Aug 23 12:54:26 2013

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:55:54 2013 Quant Results File: 5VID0819.RES

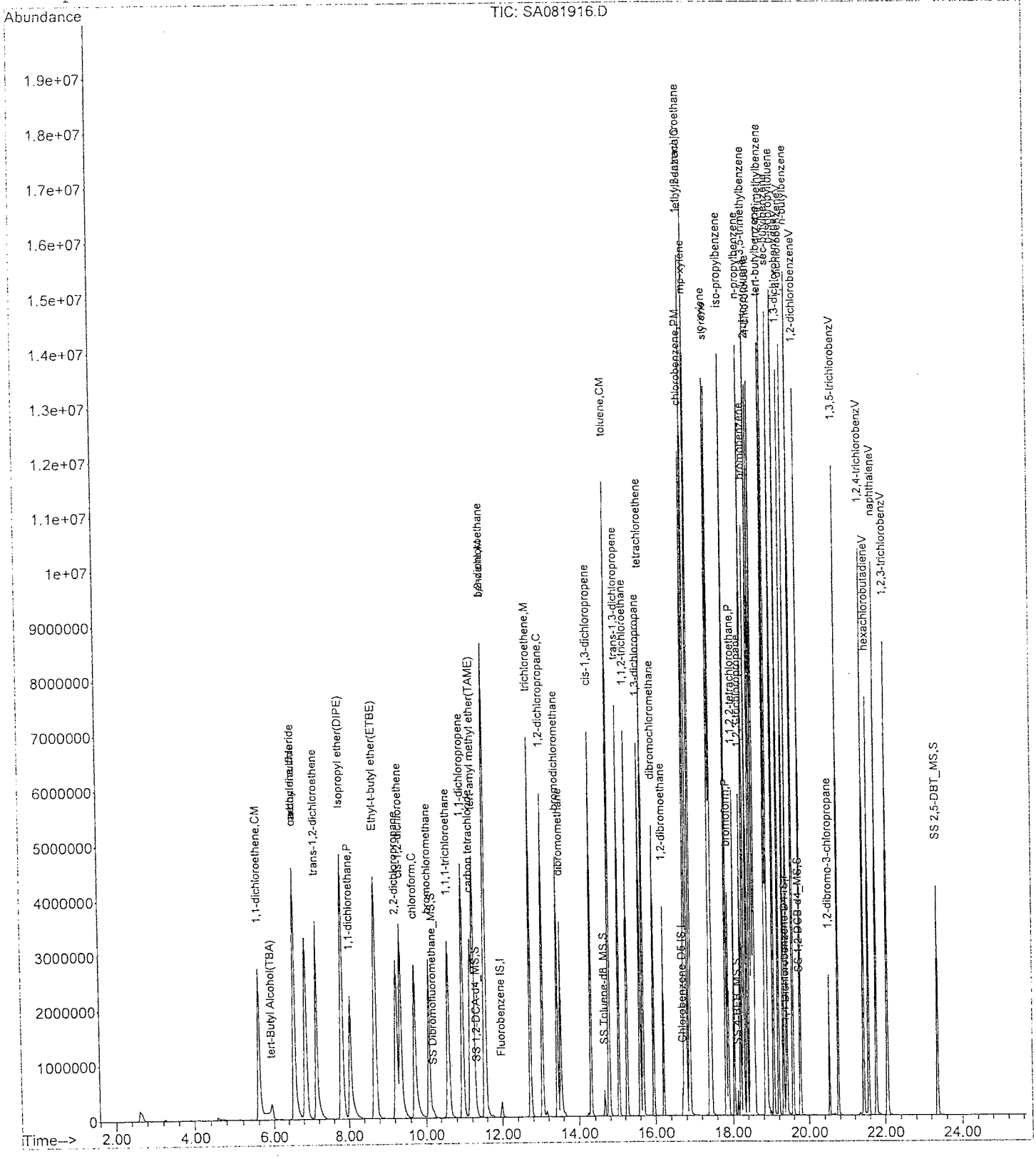
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
60) mp-xylene	16.90	106	7129553	413.652 ug/L	99
61) o-xylene	17.42	106	4827336	296.243 ug/L	98
62) styrene	17.47	104	7881747	286.143 ug/L	97
63) bromoform	17.90	173	1915867	334.604 ug/L	96
64) iso-propylbenzene	17.83	105	10853307	282.082 ug/L	97
67) bromobenzene	18.38	156	3532372	327.065 ug/L	95
68) 1,1,2,2-tetrachloroethane	18.04	83	2945469	338.782 ug/L	98
69) 1,2,3-trichloropropane	18.21	110	926336	340.217 ug/L	97
71) n-propylbenzene	18.30	91	12752599	265.541 ug/L	93
72) 2-chlorotoluene	18.52	91	8782648	289.839 ug/L	97
73) 4-chlorotoluene	18.57	91	8183486	268.149 ug/L	97
74) 1,3,5-trimethylbenzene	18.47	105	9432429	279.074 ug/L	99
75) tert-butylbenzene	18.86	119	8575894	288.822 ug/L	95
76) 1,2,4-trimethylbenzene	18.90	105	9254189	264.006 ug/L	99
77) sec-butylbenzene	19.07	105	11057784	263.138 ug/L	95
78) 1,3-dichlorobenzeneV	19.33	146	5869211	289.393 ug/L	98
79) p-isopropyltoluene	19.20	119	9495059	266.625 ug/L	95
80) 1,4-dichlorobenzeneV	19.43	146	5795670	280.217 ug/L	95
81) 1,2-dichlorobenzeneV	19.79	146	5546151	288.698 ug/L	96
82) n-butylbenzene	19.59	91	8238948	268.529 ug/L	95
84) 1,2-dibromo-3-chloropropan	20.52	157	675015	363.995 ug/L	98
85) 1,3,5-trichlorobenzV	20.75	180	4004204	343.171 ug/L	96
86) 1,2,4-trichlorobenzV	21.44	180	3606681	378.452 ug/L	97
87) hexachlorobutadieneV	21.57	225	1626693	356.819 ug/L	96
88) naphthaleneV	21.77	128	8904734	362.198 ug/L	99
89) 1,2,3-trichlorobenzV	22.06	180	3179709	385.639 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081916.D Vial: 16
Acq On : 19 Aug 2013 5:02 pm Operator: BAM
Sample : 300 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:43 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57:01 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

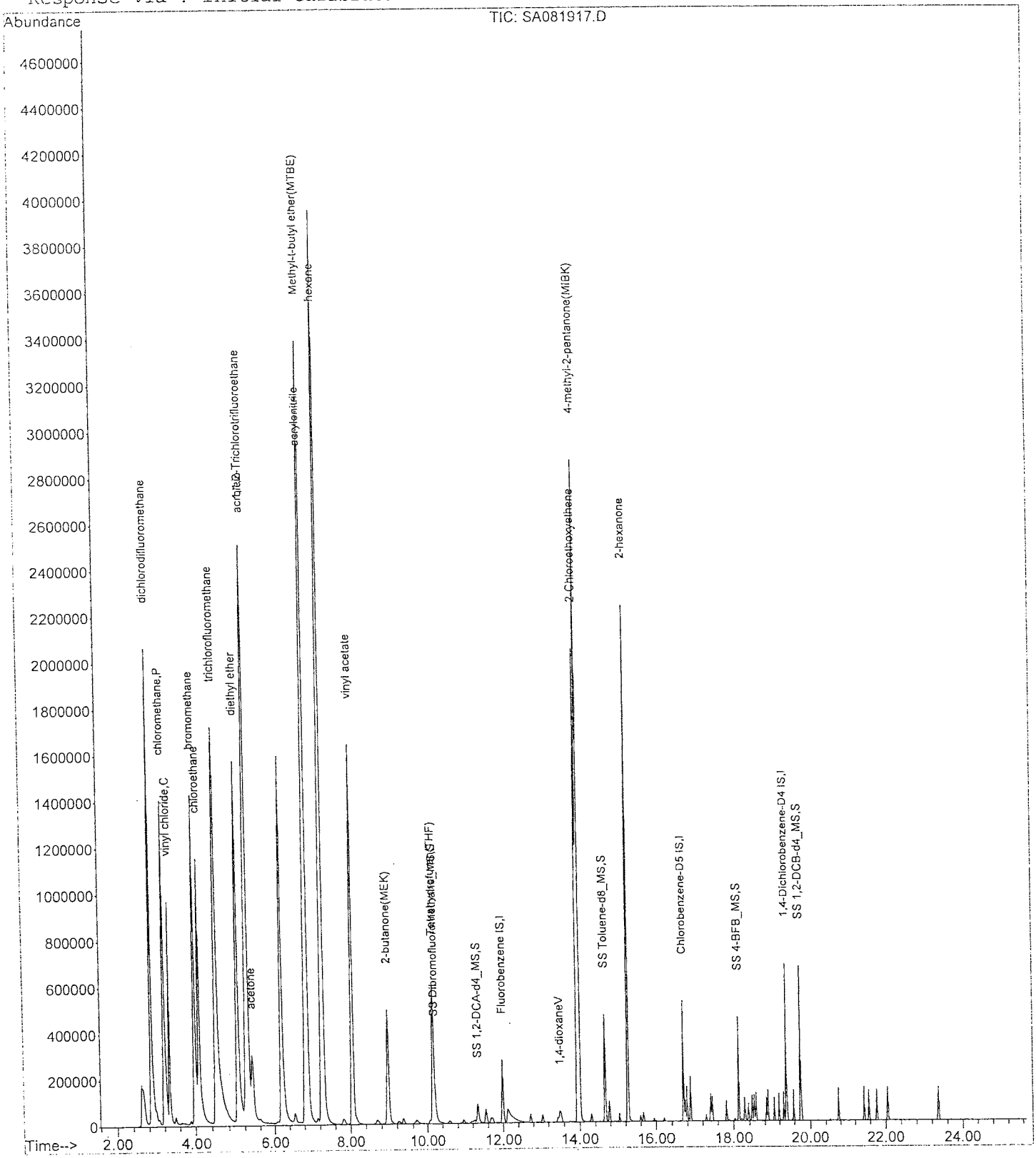
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	365026	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	289748	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	151171	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	84441	12.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.32%#			
35) SS 1,2-DCA-d4_MS	11.33	65	100614	12.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 122.60%#			
48) SS Toluene-d8_MS	14.65	98	367488	12.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 128.77%#			
65) SS 4-BFB_MS	18.13	95	145238	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	149858	12.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 125.82%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.84	85	3136326	315.458	ug/L	100
3) chloromethane	3.18	50	2741981	266.712	ug/L	100
4) vinyl chloride	3.32	62	1081763	274.863	ug/L	99
5) bromomethane	3.98	94	1770569	301.862	ug/L	99
6) chloroethane	4.09	64	1619597	261.906	ug/L	99
7) trichlorofluoromethane	4.50	101	3572269	273.858	ug/L	99
8) diethyl ether	5.02	59	1883432	297.751	ug/L	98
9) 1,1,2-Trichlorotrifluoroet	5.25	101	2408761	312.145	ug/L	95
10) acrolein	5.27	56	202421	269.842	ug/L	98
11) acetone	5.40	43	583196	294.013	ug/L	94
17) acrylonitrile	6.82	53	1052204	341.023	ug/L	91
18) Methyl-t-butyl ether(MTBE)	6.85	73	6841158	382.281	ug/L #	94
20) hexane	7.27	57	4092546	434.263	ug/L	97
22) vinyl acetate	8.05	43	4142786	319.672	ug/L	99
27) 2-butanone(MEK)	8.97	43	1123141	392.972	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	764350	413.421	ug/L	100
41) 1,4-dioxaneV	13.50	88	56897	800.639	ug/L #	80
44) 2-Chloroethoxyethene	13.95	63	979465	340.252	ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	973665	385.220	ug/L	92
52) 2-hexanone	15.25	43	1616710	398.367	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081917.D Vial: 17
Acq On : 19 Aug 2013 5:36 pm Operator: BAM
Sample : 300G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:57 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58:02 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

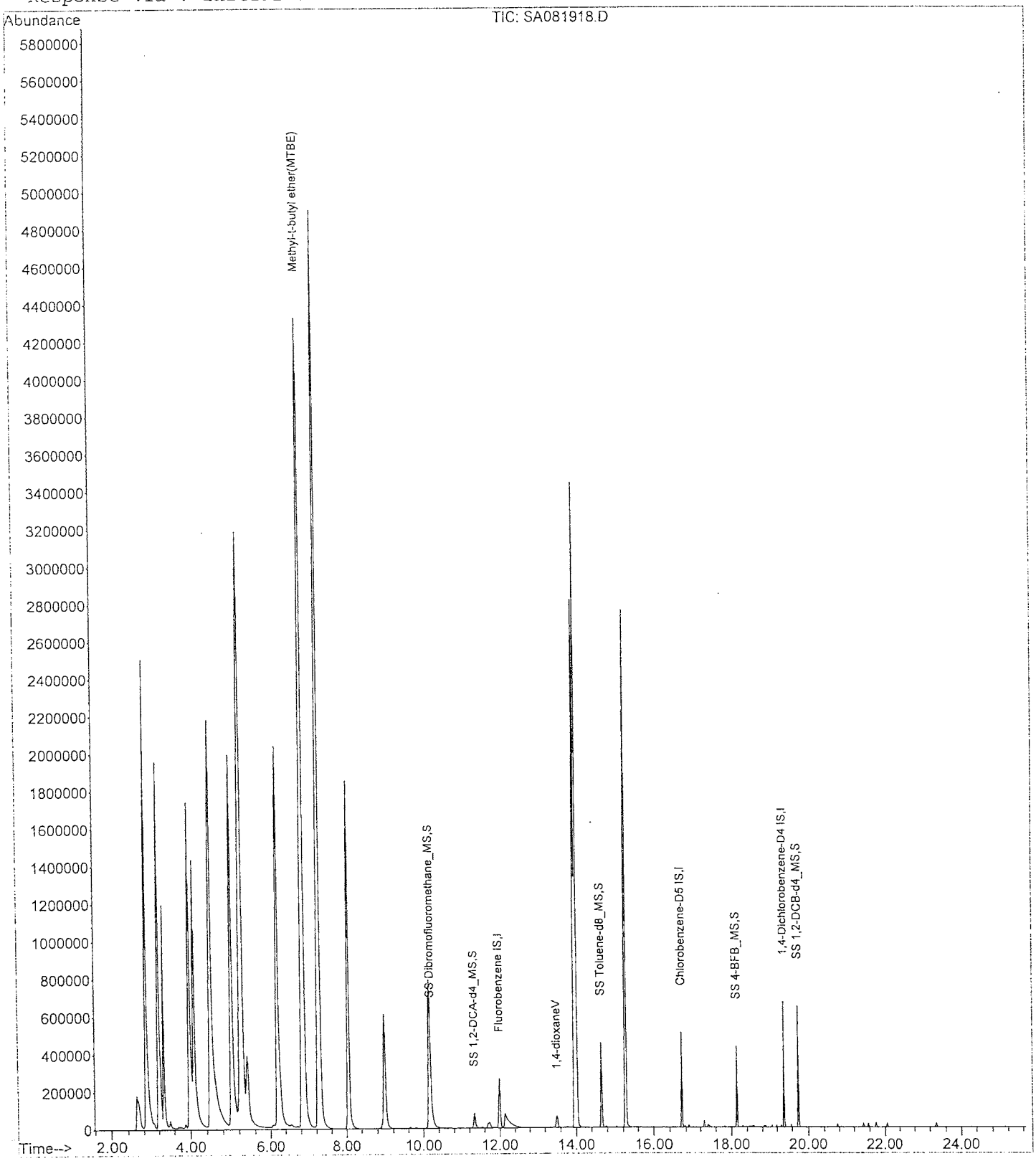
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	352067	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	282826	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	146980	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.19	111	81596	12.05	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.54%#			
35) SS 1,2-DCA-d4_MS	11.33	65	98326	12.42	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 124.22%#			
48) SS Toluene-d8_MS	14.65	98	355856	12.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.75%#			
65) SS 4-BFB_MS	18.13	95	141765	13.45	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 134.54%#			
83) SS 1,2-DCB-d4_MS	19.75	152	146942	12.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 126.89%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.86	73	8686728	503.277	ug/L #	94
41) 1,4-dioxaneV	13.50	88	76339	1113.761	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA081918.D 5VID0819.M Fri Aug 23 12:54:44 2013

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081918.D Vial: 18
Acq On : 19 Aug 2013 6:11 pm Operator: BAM
Sample : 400G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:58 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59:00 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Jul 10 14:57:00 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

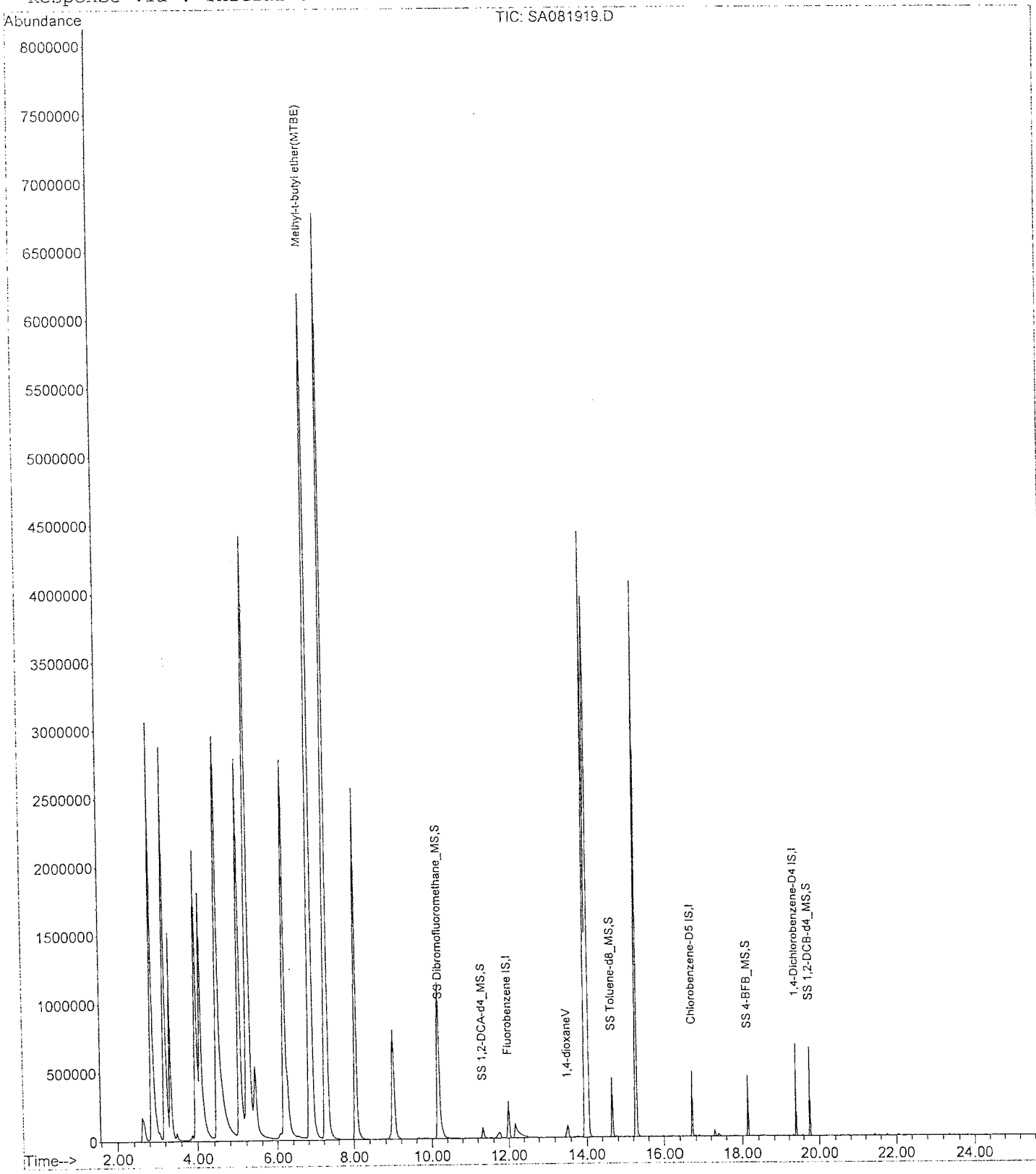
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	356279	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	285578	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	147736	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79805	11.65	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 116.50%			
35) SS 1,2-DCA-d4_MS	11.33	65	97661	12.19	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 121.92%#			
48) SS Toluene-d8_MS	14.66	98	357402	12.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.06%#			
65) SS 4-BFB_MS	18.14	95	141951	13.34	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 133.42%#			
83) SS 1,2-DCB-d4_MS	19.76	152	148035	12.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 127.18%#			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
18) Methyl-t-butyl ether(MTBE)	6.87	73	12562050	719.195	ug/L #	94
41) 1,4-dioxaneV	13.52	88	116549	1680.309	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081919.D Vial: 19
Acq On : 19 Aug 2013 6:46 pm Operator: BAM
Sample : 600G Inst : VOAMS5
Misc : xl; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 13:59 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	101	0.00
2		dichlorodifluoromethane	20.000	10.905 ↓	45.5#	60	0.00
3	P	chloromethane	20.000	14.534 ↓	27.3#	80	0.00
4	C	vinyl chloride	20.000	15.953	20.2#	85	0.01
5		bromomethane	20.000	17.157	14.2	93	0.02
6		chloroethane	20.000	17.506	12.5	94	0.02
7		trichlorofluoromethane	20.000	17.078	14.6	91	0.01
8		diethyl ether	20.000	21.076	-5.4	112	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.172	4.1	102	0.01
10		acrolein	20.000	25.533 ↑	-27.7#	129	0.00
11		acetone	20.000	18.652	6.7	99	-0.02
12	CM	1,1-dichloroethene	20.000	18.246	8.8	94	0.01
13		tert-Butyl Alcohol(TBA)	100.000	92.436 ✓	7.6	95	0.00
14		Iodomethane	20.000	18.505	7.5	114	0.00
15		methylene chloride	20.000	19.740	1.3	98	0.00
16		carbon disulfide	20.000	18.107	9.5	94	0.00
17		acrylonitrile	20.000	17.791 ✓	11.0	94	-0.01
18		Methyl-t-butyl ether(MTBE)	20 ~~40~~.000	20.236 OK ✓	49.4#	53	-0.01
19		trans-1,2-dichloroethene	20.000	19.527	2.4	97	0.00
20		hexane	20.000	0.099	99.5#	1	0.00
21		Isopropyl ether(DIPE)	20.000	20.014	-0.1	99	-0.02
22		vinyl acetate	20.000	11.121 ↓	44.4#	56	0.00
23	P	1,1-dichloroethane	20.000	19.586	2.1	96	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	101	-0.01
25		2,2-dichloropropane	20.000	20.710	-3.6	99	0.00
26		cis-1,2-dichloroethene	20.000	21.297	-6.5	104	0.00
27		2-butanone(MEK)	20.000	18.212	8.9	103	-0.02
28		bromochloromethane	20.000	19.554	2.2	99	0.00
29		Tetrahydrofuran(THF)	20.000	19.171	4.1	104	0.00
30	C	chloroform	20.000	19.390	3.0	97	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.126	-1.3	101	0.00
32		1,1,1-trichloroethane	20.000	19.826	0.9	98	0.00
33		carbon tetrachloride	20.000	19.884	0.6	97	0.00
34		1,1-dichloropropene	20.000	18.723	6.4	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.888	1.1	100	0.00
36		tert-amyl methyl ether(TAME	20.000	20.530	-2.7	103	-0.02
37	M	benzene	20.000	20.251	-1.3	99	-0.01
38		1,2-dichloroethane	20.000	19.390	3.0	94	-0.01
39	M	trichloroethene	20.000	18.635	6.8	97	0.00
40	C	1,2-dichloropropane	20.000	20.058 ✓	-0.3	99	0.00
41		1,4-dioxaneV	20 ~~40~~.000	25.614 OK ✓	36.0#	59	-0.02
42		dibromomethane	20.000	19.717	1.4	99	0.00
43		bromodichloromethane	20.000	19.342	3.3	96	0.00
44		2-Chloroethoxyethene	20.000	27.375 ↑	-36.9#	236	0.00
45		4-methyl-2-pentanone(MIBK)	20.000	19.509	2.5	105	-0.02
46		cis-1,3-dichloropropene	20.000	22.074	-10.4	108	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	102	0.00
48	S	SS Toluene-d8_MS	10.000	9.889	1.1	101	0.00
49	CM	toluene	20.000	20.389	-1.9	99	-0.01
50		trans-1,3-dichloropropene	20.000	20.612	-3.1	100	0.00
51		1,1,2-trichloroethane	20.000	19.927	0.4	101	0.00
52		2-hexanone	20.000	19.470	2.7	107	-0.02
53		tetrachloroethene	20.000	19.990	0.1	103	0.00
54		1,3-dichloropropane	20.000	19.175	4.1	100	0.00
55		dibromochloromethane	20.000	18.485	7.6	101	0.00
56		1,2-dibromoethane	20.000	19.837	0.8	99	0.00

Probable solution degradation; Reanalyze.

57	PM	chlorobenzene	20.000	19.917	0.4	97	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.283	-6.4	99	0.00
59	C	ethylbenzene	20.000	20.418	-2.1	99	-0.01
60		mp-xylene	40.000	39.722	0.7	99	-0.01
61		o-xylene	20.000	20.551	-2.8	99	-0.01
62		styrene	20.000	21.494	-7.5	101	-0.01
63	P	bromoform	20.000	18.485	7.6	106	0.00
64		iso-propylbenzene	20.000	22.658	-13.3	107	0.00
65	S	SS 4-BFB_MS	10.000	10.014	-0.1	102	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000	0.0	102	0.00
67		bromobenzene	20.000	19.813	0.9	98	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	19.994	0.0	98	0.00
69		1,2,3-trichloropropane	20.000	19.110	4.5	97	-0.01
70		trans-1,4-dichloro-2-butene	20.000	36.509	-82.5#	206	-0.02
71		n-propylbenzene	20.000	21.322	-6.6	100	-0.01
72		2-chlorotoluene	20.000	20.019	-0.1	97	-0.01
73		4-chlorotoluene	20.000	20.690	-3.5	98	-0.01
74		1,3,5-trimethylbenzene	20.000	20.898	-4.5	99	-0.01
75		tert-butylbenzene	20.000	20.674	-3.4	98	-0.01
76		1,2,4-trimethylbenzene	20.000	20.872	-4.4	98	-0.01
77		sec-butylbenzene	20.000	21.027	-5.1	98	0.00
78		1,3-dichlorobenzeneV	20.000	20.415	-2.1	98	0.00
79		p-isopropyltoluene	20.000	21.613	-8.1	99	0.00
80		1,4-dichlorobenzeneV	20.000	20.570	-2.9	99	-0.01
81		1,2-dichlorobenzeneV	20.000	20.087	-0.4	97	0.00
82		n-butylbenzene	20.000	21.377	-6.9	98	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.086	-0.9	103	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.813	5.9	105	0.00
85		1,3,5-trichlorobenzV	20.000	20.881	-4.4	102	0.00
86		1,2,4-trichlorobenzV	20.000	19.953	0.2	99	-0.01
87		hexachlorobutadieneV	20.000	18.435	7.8	95	-0.01
88		naphthaleneV	20.000	20.212	-1.1	98	-0.01
89		1,2,3-trichlorobenzV	20.000	19.789	1.1	99	-0.01
90	S	SS 2,5-DBT_MS	20.000	2.735	86.3#	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1
SA081909.D 5VID0819.M Fri Aug 23 12:47:55 2013

8/23/13

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	334400	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268265	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	144317	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79776	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.26%			
35) SS 1,2-DCA-d4_MS	11.33	65	93014	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.88%			
48) SS Toluene-d8_MS	14.65	98	336585	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.89%			
65) SS 4-BFB_MS	18.13	95	133430	10.01	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.14%			
83) SS 1,2-DCB-d4_MS	19.75	152	145311	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.86%			
90) SS 2,5-DBT_MS	23.36	250	124	2.73	ug/L	0.00
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.84%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	116230	10.905	ug/L	99
3) chloromethane	3.19	50	138142	14.534	ug/L	100
4) vinyl chloride	3.34	62	68399	15.953	ug/L	100
5) bromomethane	3.99	94	87185	17.157	ug/L	97
6) chloroethane	4.11	64	102536	17.506	ug/L	98
7) trichlorofluoromethane	4.52	101	214528	17.078	ug/L	99
8) diethyl ether	5.02	59	138702	21.076	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	166080	19.172	ug/L	99
10) acrolein	5.27	56	17833	25.533	ug/L	97
11) acetone	5.39	43	37928	18.652	ug/L	98
12) 1,1-dichloroethene	5.61	96	151012	18.246	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	65776	92.436	ug/L	97
14) Iodomethane	6.20	142	209619	18.505	ug/L #	99
15) methylene chloride	6.55	84	172986	19.740	ug/L	100
16) carbon disulfide	6.57	76	450197	18.107	ug/L	98
17) acrylonitrile	6.82	53	64549	17.791	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	466669	20.236	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	174070	19.527	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	619163	20.014	ug/L	99
22) vinyl acetate	8.05	43	176494	11.121	ug/L	99
23) 1,1-dichloroethane	8.05	63	321728	19.586	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.68	59	554843	20.305	ug/L	99
25) 2,2-dichloropropane	9.25	77	257500	20.710	ug/L	99
26) cis-1,2-dichloroethene	9.35	61	273762	21.297	ug/L	95
27) 2-butanone(MEK)	8.96	43	68155	18.212	ug/L	99
28) bromochloromethane	10.08	128	92247	19.554	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	48249	19.171	ug/L	95
30) chloroform	9.71	83	307364	19.390	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	262832	19.826	ug/L	99
33) carbon tetrachloride	11.17	117	225536	19.884	ug/L	99
34) 1,1-dichloropropene	10.96	75	244506	18.723	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	492528	20.530	ug/L #	57
37) benzene	11.55	78	757808	20.251	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47:20 2013 Quant Results File: 5VID0819.RES

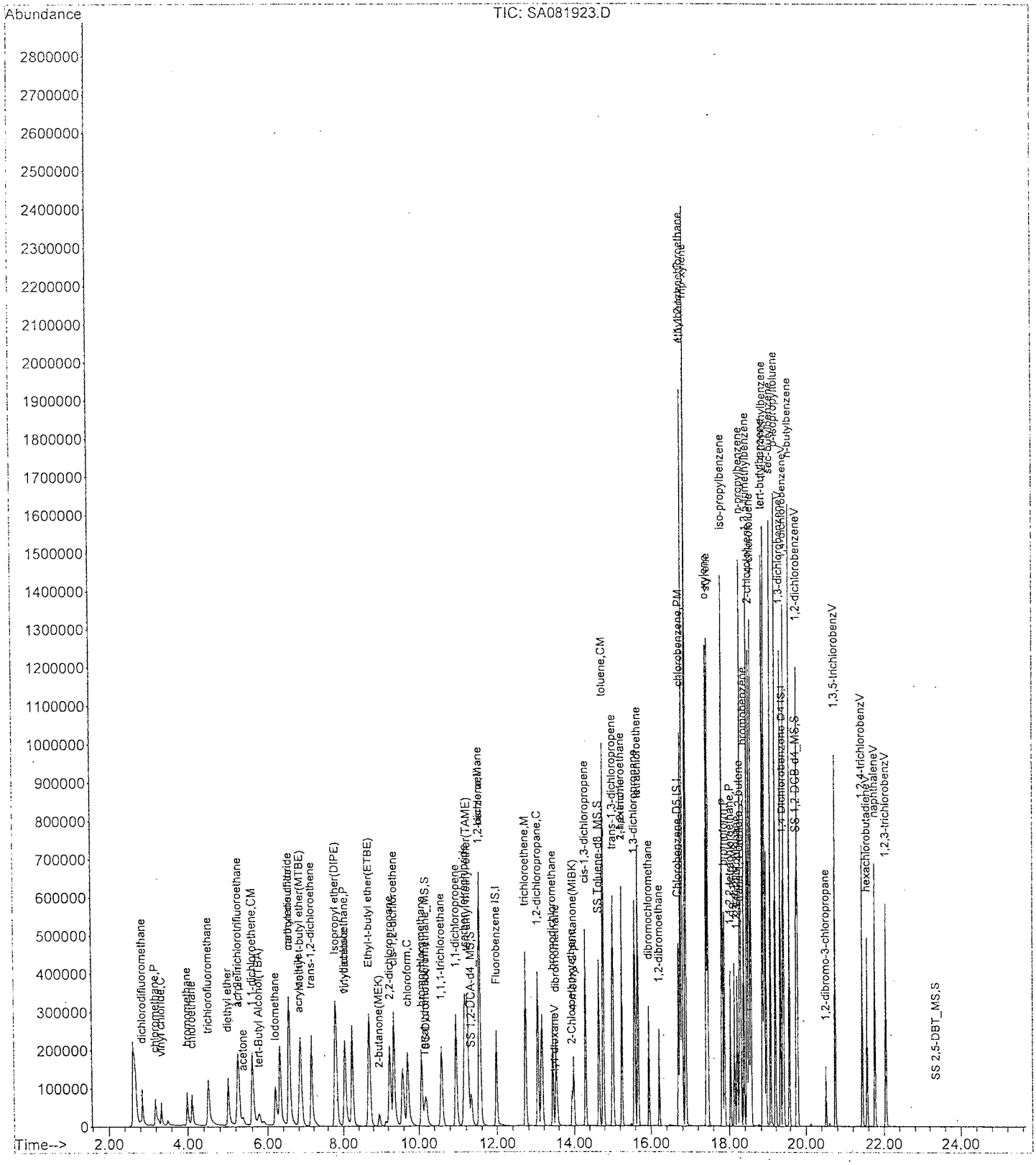
Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,2-dichloroethane	11.53	62	245366	19.390	ug/L		100
39)	trichloroethene	12.73	95	188390	18.635	ug/L		99
40)	1,2-dichloropropane	13.05	63	188863	20.058	ug/L		98
41)	1,4-dioxaneV	13.49	88	2327	25.614	ug/L	#	76
42)	dibromomethane	13.53	93	105640	19.717	ug/L		100
43)	bromodichloromethane	13.44	83	217510	19.342	ug/L		99
44)	2-Chloroethoxyethene	13.95	63	41636	27.375	ug/L	#	1
45)	4-methyl-2-pentanone(MIBK)	13.98	58	57518	19.509	ug/L		90
46)	cis-1,3-dichloropropene	14.30	75	298540	22.074	ug/L		99
49)	toluene	14.77	91	839732	20.389	ug/L		100
50)	trans-1,3-dichloropropene	15.03	75	261583	20.612	ug/L	#	78
51)	1,1,2-trichloroethane	15.25	83	129594	19.927	ug/L		98
52)	2-hexanone	15.25	43	101826	19.470	ug/L		99
53)	tetrachloroethene	15.67	166	226693	19.990	ug/L		99
54)	1,3-dichloropropane	15.60	76	275069	19.175	ug/L	#	85
55)	dibromochloromethane	15.95	129	167538	18.485	ug/L	#	100
56)	1,2-dibromoethane	16.22	107	162327	19.837	ug/L		99
57)	chlorobenzene	16.74	112	557786	19.917	ug/L		99
58)	1,1,1,2-tetrachloroethane	16.79	131	181536	21.283	ug/L		99
59)	ethylbenzene	16.79	91	963930	20.418	ug/L		100
60)	mp-xylene	16.89	106	775350	39.722	ug/L		99
61)	o-xylene	17.41	106	374585	20.551	ug/L		99
62)	styrene	17.46	104	645710	21.494	ug/L		100
63)	bromoform	17.89	173	101459	18.485	ug/L	#	92
64)	iso-propylbenzene	17.83	105	977906	22.658	ug/L		100
67)	bromobenzene	18.38	156	238344	19.813	ug/L		99
68)	1,1,2,2-tetrachloroethane	18.03	83	191862	19.994	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	58533	19.110	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	79254	36.509	ug/L	#	80
71)	n-propylbenzene	18.28	91	1159743	21.322	ug/L		100
72)	2-chlorotoluene	18.51	91	676963	20.019	ug/L		100
73)	4-chlorotoluene	18.56	91	701509	20.690	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	809032	20.898	ug/L		100
75)	tert-butylbenzene	18.84	119	710289	20.674	ug/L		100
76)	1,2,4-trimethylbenzene	18.89	105	823494	20.872	ug/L		99
77)	sec-butylbenzene	19.06	105	1004949	21.027	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	464972	20.415	ug/L		100
79)	p-isopropyltoluene	19.19	119	881827	21.613	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	467337	20.570	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	426411	20.087	ug/L		100
82)	n-butylbenzene	19.58	91	741691	21.377	ug/L		99
84)	1,2-dibromo-3-chloropropan	20.52	157	36907	18.813	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	279878	20.881	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	226463	19.953	ug/L		100
87)	hexachlorobutadieneV	21.56	225	93768	18.435	ug/L		99
88)	naphthaleneV	21.76	128	578790	20.212	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	193641	19.789	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG1913\SA081923.D Vial: 23
Acq On : 20 Aug 2013 8:25 am Operator: BAM
Sample : LCS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 23 12:47 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (G) 4085 (L) (Neco)

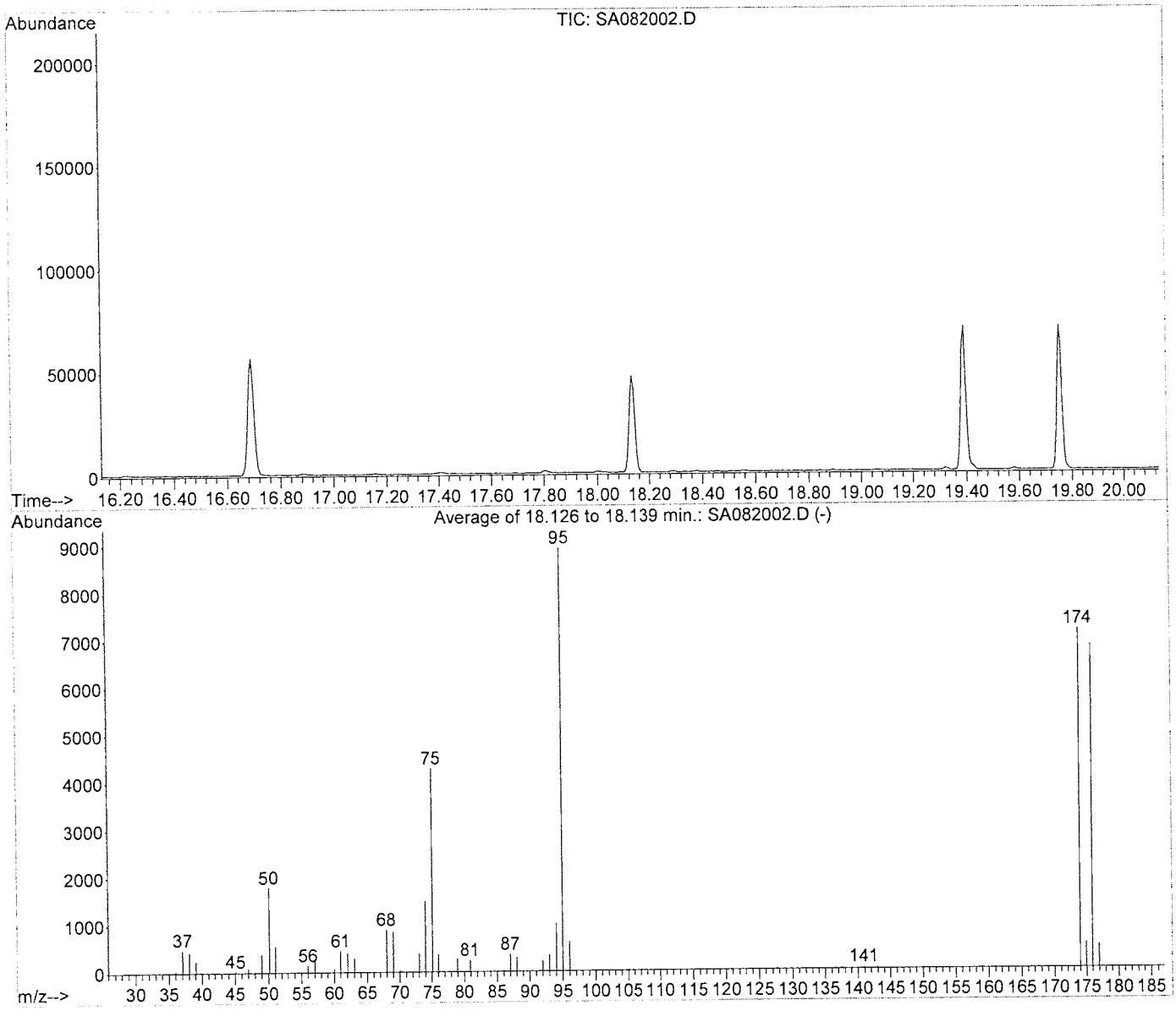
Analyst: Blu

Date: 8/20/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA082001	GAS 20					VOCMS		Second Source		
2		BFB 25ng					VOCMS	5L100819	autotuned		✓
3		STD 10					VOCMS		OK		✓
4		STD 0.5					VOCMS				✓
5		MB		✓			VOCMS				✓
6		123315.01	✓	✓		X1	VOCMS		confirmation		
7		" .04	✓	✓			VOCMS		"		
8		123380.01	✓	✓			VOCMS				
9		123611.14		✓			VOCMS				
10		" .15		✓			VOCMS				
11		.16		✓			VOCMS				
12		.17		✓			VOCMS				
13		.18		✓			VOCMS				
14		.19		✓			VOCMS				
15		" .20		✓			VOCMS				
16		~~123624.01~~		✓			VOCMS		123315.02 RR bromoform		
17		" .02		✓			VOCMS		.03		
18		123668.01		✓			VOCMS		.05		
19		" .02		✓			VOCMS		.06		
20		123609.01		✓			VOCMS		" .07		
21		" .02		✓			VOCMS		123677.01		
22		LCS 10					VOCMS		OK	✓	✓
23		LCSD 10					VOCMS		"	✓	✓
							VOCMS				
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Samples removed from autosampler, order and pH verified by Blu 8/21/13 1-23

Data File : C:\MSDCHEM\1\DATA\AUG13\AUG2013\SA082002.D Vial: 2
Acq On : 20 Aug 2013 12:21 pm Operator: BAM
Sample : BFB 25 NG Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2714

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	1794	PASS
75	95	30	60	48.0	4283	PASS
95	95	100	100	100.0	8920	PASS
96	95	5	9	6.9	619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.1	7146	PASS
175	174	5	9	7.4	529	PASS
176	174	95	101	95.3	6810	PASS
177	176	5	9	7.2	489	PASS

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2013\SA082001.D Vial: 1
Acq On : 20 Aug 2013 11:32 am Operator: BAM
Sample : GAS 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 21 14:23:11 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Wed Aug 21 14:21:27 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

New 2nd Source GAS M-4092

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	341845	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	268403	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	140183	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	79209	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.35%			
35) SS 1,2-DCA-d4_MS	11.33	65	96370	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
48) SS Toluene-d8_MS	14.65	98	341573	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.31%			
65) SS 4-BFB_MS	18.13	95	131805	9.89	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 98.87%			
83) SS 1,2-DCB-d4_MS	19.75	152	139280	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.53%			
90) SS 2,5-DBT_MS	0.00	250	0d	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	213114 OK	19.560	ug/L	100
3) chloromethane	3.20	50	198329	20.412	ug/L	100
4) vinyl chloride	3.34	62	96161	22.155	ug/L	100
5) bromomethane	3.99	94	101759	19.589	ug/L	98
6) chloroethane	4.11	64	118267	19.752	ug/L	98
7) trichlorofluoromethane	4.52	101	241706	18.822	ug/L	99
10) acrolein	5.27	56	17657	24.730	ug/L	96
11) acetone	5.38	43	40059	19.271	ug/L	99
22) vinyl acetate	8.05	43	184735 ↓	11.387	ug/L	99
27) 2-butanone(MEK)	8.96	43	68939	18.020	ug/L	99
45) 4-methyl-2-pentanone(MIBK)	13.98	58	58122	19.285	ug/L	89
52) 2-hexanone	15.25	43	102376	19.565	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082001.D 5VID0819.M Wed Aug 21 14:24:43 2013

bkm 8/21/13

Eastern Analytical, Inc.
Professional laboratory & drilling services

123705
VOC 8260B
Support Data

IS/SS ID= V- 4089
Standard ID= V- 4091A
Gas Standard ID= V- 4090
LCS/LCSD and/or MS/MSD Standard ID= V- 4092 (62) 4085 (2)

Analyst: Blue

Date: 8/23/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	pH<2	A
1	SA087301	BFB					VOCMS	SV1D0819	AutoFind		✓
2	1	STD20					VOCMS	1	Acrolein↑		✓
3	1	STD2					VOCMS	1			✓
4	1	MB					VOCMS	1			✓
5	1	123650.03		✓		x1	VOCMS	1			
6	1	↑ .04		✓		1	VOCMS	1			
7	1	↓ .05		✓		1	VOCMS	1			
8	1	123705.09		✓		↓	VOCMS	1			
9	1	123612.05	✓	✓		x5	VOCMS	1			
10	1	LCS20					VOCMS	1			✓
11	1	LCSD20					VOCMS	↓			✓
12	1	BFB25ng					VOCMS	SL1D0819	AutoFind		✓
13	1	STD10					VOCMS	1			✓
14	1	STD0.5					VOCMS	1			✓
15	1	MB					VOCMS	1			✓
16	1	123624.01		✓		x1	VOCMS	1			
17	1	↓ .02		✓		1	VOCMS	1			
18	1	123705.01		✓		1	VOCMS	1			
19	1	.02		✓		1	VOCMS	1			
20	1	.03		✓		1	VOCMS	1			
21	1	.04		✓		1	VOCMS	1			
22	1	.05		✓		1	VOCMS	1			
23	1	.06		✓		1	VOCMS	1			
24	1	.07		✓		1	VOCMS	1			
25	1	↓ .08		✓		1	VOCMS	1			
26	1	123792.01		✓		1	VOCMS	1			
27	1	123793.01		✓		1	VOCMS	1			
28	1	↓ .02		✓		1	VOCMS	1			
29	1	123767.01		✓		1	VOCMS	1			
30	1	↓ .02		✓		1	VOCMS	1			
31	1	123788.01		✓		↓	VOCMS	1			
32	1	LCS10					VOCMS	1		✓	✓
33	↓	LCSD10					VOCMS	↓		✓	✓
							~~VOCMS~~				
							VOCMS				
							VOCMS				
							~~VOCMS~~				
							VOCMS				
							VOCMS				
							VOCMS				
							VOCMS				
							~~VOCMS~~				

✓ ✓ ✓

Samples removed from autosampler, order and pH verified by Blue 8/26/13 1-33

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082301.D
Tune Time : 23 Aug 2013 7:47 am

Daily Calibration File : C:\MSDCHEM\1\DATA\AUG13\AUG2313\SA082302.D

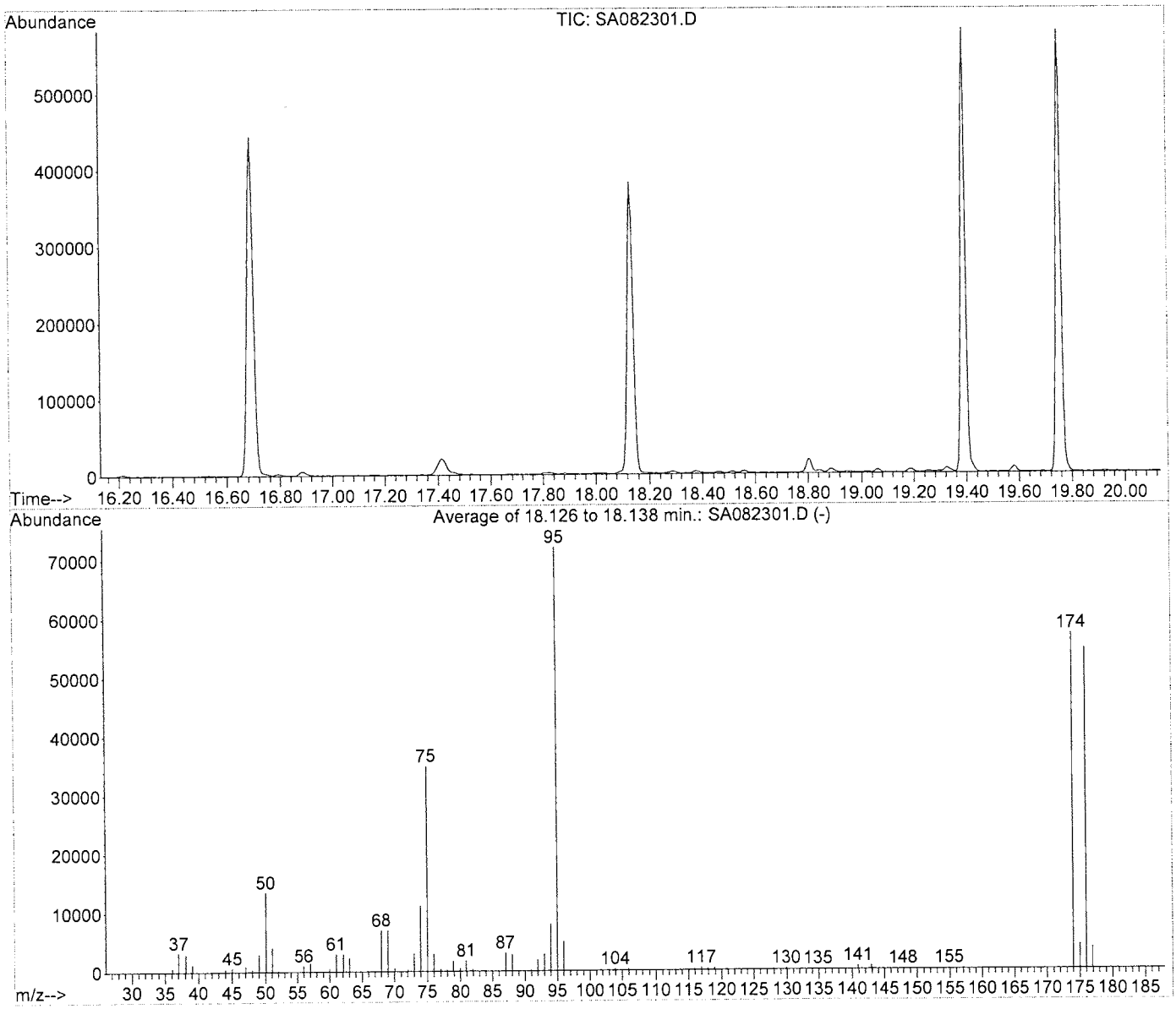
303003 246947 131632

File	Sample	Surrogate Recovery %				Internal Standard Responses		
SA082301.D	BFB	100	100	99	98	307095	248039	129476
		100	0*					
SA082302.D	STD 20	101	98	98	100	303003	246947	131632
		101	47*					
SA082303.D	STD 2	99	100	99	100	310827	249684	131291
		101	11*					
SA082304.D	MB	98	100	99	98	311185	248808	127553
		102	7*					
SA082305.D	123650.03	99	100	98	98	302073	244096	125774
		101	0*					
SA082306.D	123650.04	100	102	98	98	297357	239164	123235
		102	0*					
SA082307.D	123650.05	100	101	98	97	295318	238157	121404
		102	0*					
SA082308.D	123705.09	99	103	98	97	301930	245327	125627
		102	0*					
SA082309.D	123612.05	98	102	98	98	300641	243245	125916
		102	0*					
SA082310.D	LCS 20	103	98	98	100	299596	246012	132098
		101	0*					
SA082311.D	LCSD 20	101	98	98	99	308392	255451	136135
		100	0*					

t - fails 12hr time check * - fails criteria

Created: Wed Sep 04 10:43:41 2013 VOAMS5

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082301.D Vial: 1
Acq On : 23 Aug 2013 7:47 am Operator: BAM
Sample : BFB Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013



AutoFind: Scans 2720, 2721, 2722; Background Corrected with Scan 2713

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	13479	PASS
75	95	30	60	48.4	34901	PASS
95	95	100	100	100.0	72042	PASS
96	95	5	9	7.0	5045	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.1	56968	PASS
175	174	5	9	7.3	4156	PASS
176	174	95	101	95.5	54405	PASS
177	176	5	9	6.7	3651	PASS

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	91	0.00
2		dichlorodifluoromethane	20.000	18.474	7.6	92	0.00
3	P	chloromethane	20.000	19.243	3.8	96	0.00
4	C	vinyl chloride	20.000	22.055	-10.3	105	0.01
5		bromomethane	20.000	20.302	-1.5	100	0.02
6		chloroethane	20.000	20.050	-0.3	97	0.02
7		trichlorofluoromethane	20.000	20.001	-0.0	96	0.01
8		diethyl ether	20.000	19.503	2.5	94	0.00
9		1,1,2-Trichlorotrifluoroeth	20.000	19.892	0.5	96	0.01
10		acrolein	20.000	24.110	-20.5#	110	0.00
11		acetone	20.000	19.132	4.3	92	-0.02
12	CM	1,1-dichloroethene	20.000	19.001	5.0	88	0.01
13		tert-Butyl Alcohol(TBA)	100.000	96.573	3.4	90	0.00
14		Iodomethane	20.000	17.668	11.7	99	0.00
15		methylene chloride	20.000	19.688	1.6	89	0.00
16		carbon disulfide	20.000	19.543	2.3	91	0.01
17		acrylonitrile	20.000	21.406	-7.0	103	-0.01
18		Methyl-t-butyl ether(MTBE)	40.000	40.092	-0.2	95	-0.01
19		trans-1,2-dichloroethene	20.000	20.784	-3.9	93	0.00
20		hexane	20.000	21.147	-5.7	102	0.00
21		Isopropyl ether(DIPE)	20.000	20.951	-4.8	94	-0.02
22		vinyl acetate	20.000	21.528	-7.6	99	0.00
23	P	1,1-dichloroethane	20.000	20.992	-5.0	94	0.00
24		Ethyl-t-butyl ether(ETBE)	20.000	20.305	-1.5	92	0.00
25		2,2-dichloropropane	20.000	20.520	-2.6	89	0.00
26		cis-1,2-dichloroethene	20.000	20.950	-4.7	93	0.00
27		2-butanone(MEK)	20.000	19.715	1.4	101	-0.02
28		bromochloromethane	20.000	20.470	-2.3	94	0.00
29		Tetrahydrofuran(THF)	20.000	20.159	-0.8	99	-0.01
30	C	chloroform	20.000	20.219	-1.1	91	0.00
31	S	SS Dibromofluoromethane_MS	10.000	10.089	-0.9	91	0.00
32		1,1,1-trichloroethane	20.000	19.809	1.0	89	0.00
33		carbon tetrachloride	20.000	20.108	-0.5	89	0.00
34		1,1-dichloropropene	20.000	20.601	-3.0	92	0.00
35	S	SS 1,2-DCA-d4_MS	10.000	9.771	2.3	89	0.00
36		tert-amyl methyl ether(TAME	20.000	20.448	-2.2	93	-0.01
37	M	benzene	20.000	21.170	-5.9	94	-0.01
38		1,2-dichloroethane	20.000	20.514	-2.6	91	-0.01
39	M	trichloroethene	20.000	19.611	1.9	92	0.00
40	C	1,2-dichloropropane	20.000	21.302	-6.5	95	0.00
41		1,4-dioxaneV	40.000	47.365	-18.4	99	-0.03
42		dibromomethane	20.000	20.699	-3.5	94	0.00
43		bromodichloromethane	20.000	20.042	-0.2	90	0.00
44		2-Chloroethoxyethene	20.000	19.173	4.1	129	-0.01
45		4-methyl-2-pentanone(MIBK)	20.000	20.768	-3.8	102	-0.01
46		cis-1,3-dichloropropene	20.000	20.909	-4.5	92	0.00
47	I	Chlorobenzene-D5 IS	10.000	10.000	0.0	94	0.00
48	S	SS Toluene-d8_MS	10.000	9.831	1.7	92	0.00
49	CM	toluene	20.000	20.875	-4.4	94	-0.01
50		trans-1,3-dichloropropene	20.000	20.458	-2.3	92	0.00
51		1,1,2-trichloroethane	20.000	20.305	-1.5	94	0.00
52		2-hexanone	20.000	19.914	0.4	100	-0.02
53		tetrachloroethene	20.000	19.102	4.5	91	0.00
54		1,3-dichloropropane	20.000	19.599	2.0	94	0.00
55		dibromochloromethane	20.000	18.202	9.0	91	-0.01
56		1,2-dibromoethane	20.000	20.279	-1.4	94	0.00

57	PM	chlorobenzene	20.000	20.671	-3.4	93	0.00
58		1,1,1,2-tetrachloroethane	20.000	21.469	-7.3	92	0.00
59	C	ethylbenzene	20.000	20.861	-4.3	93	-0.01
60		mp-xylene	40.000	40.849	-2.1	94	-0.01
61		o-xylene	20.000	20.995	-5.0	93	-0.01
62		styrene	20.000	21.330	-6.6	92	-0.01
63	P	bromoform	20.000	16.902	15.5	88	0.00
64		iso-propylbenzene	20.000	21.423	-7.1	93	0.00
65	S	SS 4-BFB_MS	10.000	10.036	-0.4	94	0.00
66	I	1,4-Dichlorobenzene-D4 IS	10.000	10.000	0.0	93	0.00
67		bromobenzene	20.000	20.607	-3.0	93	0.00
68	P	1,1,2,2-tetrachloroethane	20.000	21.071	-5.4	94	0.00
69		1,2,3-trichloropropane	20.000	20.265	-1.3	93	-0.01
70		trans-1,4-dichloro-2-butene	20.000	18.112	9.4	91	-0.02
71		n-propylbenzene	20.000	21.796	-9.0	93	-0.01
72		2-chlorotoluene	20.000	20.794	-4.0	91	-0.01
73		4-chlorotoluene	20.000	21.207	-6.0	92	-0.01
74		1,3,5-trimethylbenzene	20.000	21.479	-7.4	93	-0.01
75		tert-butylbenzene	20.000	21.484	-7.4	93	-0.01
76		1,2,4-trimethylbenzene	20.000	21.687	-8.4	93	-0.01
77		sec-butylbenzene	20.000	21.880	-9.4	93	0.00
78		1,3-dichlorobenzeneV	20.000	20.955	-4.8	92	0.00
79		p-isopropyltoluene	20.000	22.158	-10.8	93	0.00
80		1,4-dichlorobenzeneV	20.000	20.909	-4.5	92	-0.01
81		1,2-dichlorobenzeneV	20.000	20.905	-4.5	92	-0.01
82		n-butylbenzene	20.000	22.393	-12.0	94	0.00
83	S	SS 1,2-DCB-d4_MS	10.000	10.088	-0.9	94	0.00
84		1,2-dibromo-3-chloropropane	20.000	18.728	6.4	95	0.00
85		1,3,5-trichlorobenzV	20.000	21.029	-5.1	94	0.00
86		1,2,4-trichlorobenzV	20.000	20.939	-4.7	95	-0.01
87		hexachlorobutadieneV	20.000	19.911	0.4	93	-0.01
88		naphthaleneV	20.000	21.413	-7.1	94	-0.01
89		1,2,3-trichlorobenzV	20.000	20.740	-3.7	94	-0.01
90	S	SS 2,5-DBT_MS	20.000	18.747	6.3	92	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SA081909.D 5VID0819.M Tue Aug 27 10:08:41 2013

Evaluate Continuing Calibration Report

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	1.000	1.000	0.0	91	0.00
2		dichlorodifluoromethane	0.319	0.294	7.8	92	0.00
3	P	chloromethane	0.284	0.273	3.9	96	0.00
4	C	vinyl chloride	0.149	0.140	6.0	105	0.01
5		bromomethane	0.152	0.154	-1.3	100	0.02
6		chloroethane	0.175	0.176	-0.6	97	0.02
7		trichlorofluoromethane	0.376	0.376	0.0	96	0.01
8		diethyl ether	0.197	0.192	2.5	94	0.00
9		1,1,2-Trichlorotrifluoroeth	0.259	0.258	0.4	96	0.01
10		acrolein	0.021	0.025	-19.0	110	0.00
11		acetone	0.061	0.058	4.9	92	-0.02
12	CM	1,1-dichloroethene	0.247	0.235	4.9	88	0.01
13		tert-Butyl Alcohol(TBA)	0.021	0.021	0.0	90	0.00
14		Iodomethane	0.275	0.299	-8.7	99	0.00
15		methylene chloride	0.262	0.258	1.5	89	0.00
16		carbon disulfide	0.744	0.727	2.3	91	0.01
17		acrylonitrile	0.108	0.116	-7.4	103	-0.01
18		Methyl-t-butyl ether(MTBE)	0.690	0.691	-0.1	95	-0.01
19		trans-1,2-dichloroethene	0.267	0.277	-3.7	93	0.00
20		hexane	0.413	0.436	-5.6	102	0.00
21		Isopropyl ether(DIPE)	0.925	0.969	-4.8	94	-0.02
22		vinyl acetate	0.475	0.511	-7.6	99	0.00
23	P	1,1-dichloroethane	0.491	0.516	-5.1	94	0.00
24		Ethyl-t-butyl ether(ETBE)	0.817	0.830	-1.6	92	0.00
25		2,2-dichloropropane	0.372	0.381	-2.4	89	0.00
26		cis-1,2-dichloroethene	0.384	0.403	-4.9	93	0.00
27		2-butanone(MEK)	0.112	0.110	1.8	101	-0.02
28		bromochloromethane	0.141	0.144	-2.1	94	0.00
29		Tetrahydrofuran(THF)	0.075	0.076	-1.3	99	-0.01
30	C	chloroform	0.474	0.479	-1.1	91	0.00
31	S	SS Dibromofluoromethane_MS	0.236	0.238	-0.8	91	0.00
32		1,1,1-trichloroethane	0.396	0.393	0.8	89	0.00
33		carbon tetrachloride	0.339	0.341	-0.6	89	0.00
34		1,1-dichloropropene	0.391	0.402	-2.8	92	0.00
35	S	SS 1,2-DCA-d4_MS	0.281	0.275	2.1	89	0.00
36		tert-amyl methyl ether(TAME	0.717	0.733	-2.2	93	-0.01
37	M	benzene	1.119	1.185	-5.9	94	-0.01
38		1,2-dichloroethane	0.378	0.388	-2.6	91	-0.01
39	M	trichloroethene	0.302	0.296	2.0	92	0.00
40	C	1,2-dichloropropane	0.282	0.300	-6.4	95	0.00
41		1,4-dioxaneV	0.003	0.003	0.0	99	-0.03
42		dibromomethane	0.160	0.166	-3.8	94	0.00
43		bromodichloromethane	0.336	0.337	-0.3	90	0.00
44		2-Chloroethoxyethene	0.041	0.037	9.8	129	-0.01
45		4-methyl-2-pentanone(MIBK)	0.088	0.092	-4.5	102	-0.01
46		cis-1,3-dichloropropene	0.404	0.423	-4.7	92	0.00
47	I	Chlorobenzene-D5 IS	1.000	1.000	0.0	94	0.00
48	S	SS Toluene-d8_MS	1.269	1.247	1.7	92	0.00
49	CM	toluene	1.535	1.602	-4.4	94	-0.01
50		trans-1,3-dichloropropene	0.473	0.484	-2.3	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51		1,1,2-trichloroethane	0.242	0.246	-1.7	94	0.00
52		2-hexanone	0.195	0.194	0.5	100	-0.02
53		tetrachloroethene	0.423	0.404	4.5	91	0.00
54		1,3-dichloropropane	0.535	0.524	2.1	94	0.00
55		dibromochloromethane	0.303	0.307	-1.3	91	-0.01
56		1,2-dibromoethane	0.305	0.309	-1.3	94	0.00
57	PM	chlorobenzene	1.044	1.079	-3.4	93	0.00
58		1,1,1,2-tetrachloroethane	0.318	0.341	-7.2	92	0.00
59	C	ethylbenzene	1.760	1.836	-4.3	93	-0.01
60		mp-xylene	0.728	0.743	-2.1	94	-0.01
61		o-xylene	0.679	0.713	-5.0	93	-0.01
62		styrene	1.120	1.194	-6.6	92	-0.01
63	P	bromoform	0.177	0.172	2.8	88	0.00
64		iso-propylbenzene	1.609	1.723	-7.1	93	0.00
65	S	SS 4-BFB_MS	0.497	0.498	-0.2	94	0.00
66	I	1,4-Dichlorobenzene-D4 IS	1.000	1.000	0.0	93	0.00
67		bromobenzene	0.834	0.859	-3.0	93	0.00
68	P	1,1,2,2-tetrachloroethane	0.665	0.701	-5.4	94	0.00
69		1,2,3-trichloropropane	0.212	0.215	-1.4	93	-0.01
70		trans-1,4-dichloro-2-butene	0.129	0.133	-3.1	91	-0.02
71		n-propylbenzene	3.769	4.107	-9.0	93	-0.01
72		2-chlorotoluene	2.343	2.436	-4.0	91	-0.01
73		4-chlorotoluene	2.349	2.491	-6.0	92	-0.01
74		1,3,5-trimethylbenzene	2.682	2.881	-7.4	93	-0.01
75		tert-butylbenzene	2.381	2.557	-7.4	93	-0.01
76		1,2,4-trimethylbenzene	2.734	2.965	-8.4	93	-0.01
77		sec-butylbenzene	3.312	3.623	-9.4	93	0.00
78		1,3-dichlorobenzeneV	1.578	1.654	-4.8	92	0.00
79		p-isopropyltoluene	2.827	3.132	-10.8	93	0.00
80		1,4-dichlorobenzeneV	1.574	1.646	-4.6	92	-0.01
81		1,2-dichlorobenzeneV	1.471	1.538	-4.6	92	-0.01
82		n-butylbenzene	2.404	2.692	-12.0	94	0.00
83	S	SS 1,2-DCB-d4_MS	0.998	1.007	-0.9	94	0.00
84		1,2-dibromo-3-chloropropane	0.122	0.127	-4.1	95	0.00
85		1,3,5-trichlorobenzV	0.929	0.977	-5.2	94	0.00
86		1,2,4-trichlorobenzV	0.786	0.823	-4.7	95	-0.01
87		hexachlorobutadieneV	0.352	0.351	0.3	93	-0.01
88		naphthaleneV	1.984	2.124	-7.1	94	-0.01
89		1,2,3-trichlorobenzV	0.678	0.703	-3.7	94	-0.01
90	S	SS 2,5-DBT_MS	0.198	0.202	-2.0	92	-0.01

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 08:59:33 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	303003	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	246947	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	131632	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72018	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.89%			
35) SS 1,2-DCA-d4_MS	11.34	65	83290	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.71%			
48) SS Toluene-d8_MS	14.65	98	307996	9.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.31%			
65) SS 4-BFB_MS	18.13	95	123091	10.04	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.36%			
83) SS 1,2-DCB-d4_MS	19.75	152	132569	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.88%			
90) SS 2,5-DBT_MS	23.36	250	53117	18.75	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 46.87%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	178418	18.474	ug/L	99
3) chloromethane	3.19	50	165726	19.243	ug/L	99
4) vinyl chloride	3.34	62	84859	22.055	ug/L	100
5) bromomethane	3.99	94	93480	20.302	ug/L	98
6) chloroethane	4.11	64	106412	20.050	ug/L	98
7) trichlorofluoromethane	4.52	101	227665	20.001	ug/L	99
8) diethyl ether	5.02	59	116301	19.503	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	156133	19.892	ug/L	99
10) acrolein	5.27	56	15258	24.110	ug/L	86
11) acetone	5.38	43	35251	19.132	ug/L	96
12) 1,1-dichloroethene	5.61	96	142494	19.001	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	62268	96.573	ug/L	97
14) Iodomethane	6.20	142	181450	17.668	ug/L #	100
15) methylene chloride	6.55	84	156329	19.688	ug/L	98
16) carbon disulfide	6.57	76	440269	19.543	ug/L	99
17) acrylonitrile	6.82	53	70374	21.406	ug/L	99
18) Methyl-t-butyl ether(MTBE)	6.85	73	837786	40.092	ug/L	99
19) trans-1,2-dichloroethene	7.15	96	167880	20.784	ug/L	99
20) hexane	7.28	57	264318	21.147	ug/L	100
21) Isopropyl ether(DIPE)	7.81	45	587296	20.951	ug/L	100
22) vinyl acetate	8.05	43	309578	21.528	ug/L	100
23) 1,1-dichloroethane	8.04	63	312447	20.992	ug/L	98
24) Ethyl-t-butyl ether(ETBE)	8.69	59	502750	20.305	ug/L	99
25) 2,2-dichloropropane	9.25	77	231186	20.520	ug/L	100
26) cis-1,2-dichloroethene	9.36	61	244012	20.950	ug/L	98
27) 2-butanone(MEK)	8.96	43	66852	19.715	ug/L	99
28) bromochloromethane	10.08	128	87499	20.470	ug/L	99
29) Tetrahydrofuran(THF)	10.15	42	45971	20.159	ug/L	98
30) chloroform	9.71	83	290414	20.219	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	237951	19.809	ug/L	100
33) carbon tetrachloride	11.17	117	206660	20.108	ug/L	99
34) 1,1-dichloropropene	10.96	75	243767	20.601	ug/L	98
36) tert-amyl methyl ether(TAM	11.24	73	444484	20.448	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 08:59:33 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

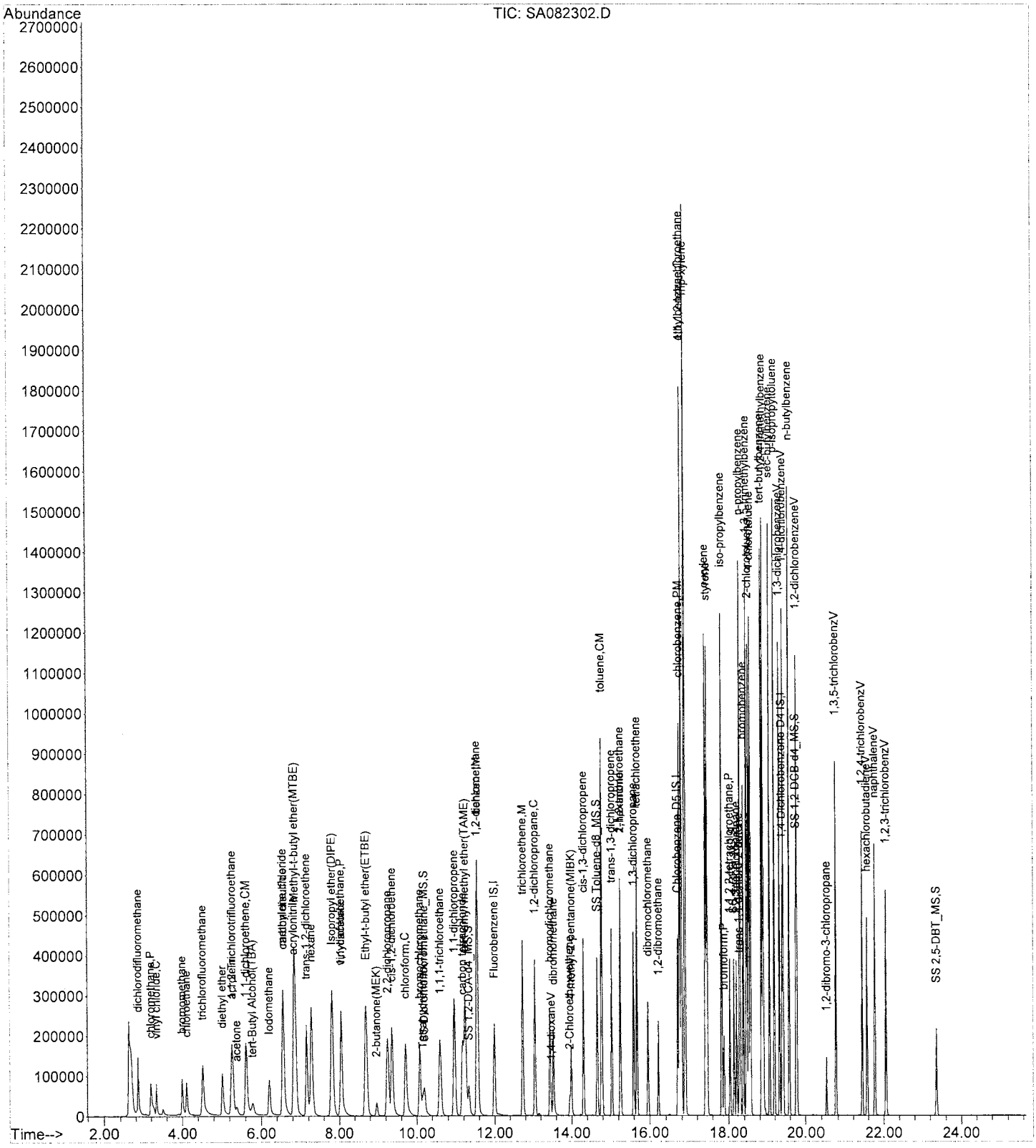
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	benzene	11.55	78	717821	21.170	ug/L		100
38)	1,2-dichloroethane	11.53	62	235213	20.514	ug/L		99
39)	trichloroethene	12.73	95	179642	19.611	ug/L		99
40)	1,2-dichloropropane	13.05	63	181736	21.302	ug/L		98
41)	1,4-dioxaneV	13.48	88	3899	47.365	ug/L		96
42)	dibromomethane	13.53	93	100490	20.699	ug/L		98
43)	bromodichloromethane	13.44	83	204219	20.042	ug/L		100
44)	2-Chloroethoxyethene	13.94	63	22674	19.173	ug/L	#	62
45)	4-methyl-2-pentanone(MIBK)	13.99	58	55481	20.768	ug/L		97
46)	cis-1,3-dichloropropene	14.30	75	256231	20.909	ug/L		99
49)	toluene	14.77	91	791406	20.875	ug/L		99
50)	trans-1,3-dichloropropene	15.03	75	239006	20.458	ug/L		99
51)	1,1,2-trichloroethane	15.25	83	121554	20.305	ug/L		99
52)	2-hexanone	15.25	43	95869	19.914	ug/L		100
53)	tetrachloroethene	15.67	166	199410	19.102	ug/L		99
54)	1,3-dichloropropane	15.60	76	258811	19.599	ug/L		99
55)	dibromochloromethane	15.95	129	151813	18.202	ug/L	#	99
56)	1,2-dibromoethane	16.22	107	152757	20.279	ug/L		99
57)	chlorobenzene	16.74	112	532922	20.671	ug/L		100
58)	1,1,1,2-tetrachloroethane	16.79	131	168567	21.469	ug/L		99
59)	ethylbenzene	16.79	91	906559	20.861	ug/L		100
60)	mp-xylene	16.89	106	733981	40.849	ug/L		98
61)	o-xylene	17.41	106	352266	20.995	ug/L		99
62)	styrene	17.46	104	589856	21.330	ug/L		99
63)	bromoform	17.89	173	84761	16.902	ug/L		99
64)	iso-propylbenzene	17.83	105	851135	21.423	ug/L		100
67)	bromobenzene	18.38	156	226109	20.607	ug/L		98
68)	1,1,2,2-tetrachloroethane	18.04	83	184421	21.071	ug/L		99
69)	1,2,3-trichloropropane	18.20	110	56615	20.265	ug/L		99
70)	trans-1,4-dichloro-2-buten	18.26	75	34915	18.112	ug/L		99
71)	n-propylbenzene	18.28	91	1081320	21.796	ug/L		100
72)	2-chlorotoluene	18.51	91	641361	20.794	ug/L		100
73)	4-chlorotoluene	18.56	91	655828	21.207	ug/L		100
74)	1,3,5-trimethylbenzene	18.46	105	758416	21.479	ug/L		99
75)	tert-butylbenzene	18.84	119	673221	21.484	ug/L		98
76)	1,2,4-trimethylbenzene	18.89	105	780450	21.687	ug/L		99
77)	sec-butylbenzene	19.06	105	953808	21.880	ug/L		100
78)	1,3-dichlorobenzeneV	19.32	146	435317	20.955	ug/L		100
79)	p-isopropyltoluene	19.19	119	824577	22.158	ug/L		100
80)	1,4-dichlorobenzeneV	19.42	146	433271	20.909	ug/L		100
81)	1,2-dichlorobenzeneV	19.78	146	404776	20.905	ug/L		100
82)	n-butylbenzene	19.58	91	708648	22.393	ug/L		100
84)	1,2-dibromo-3-chloropropan	20.52	157	33499	18.728	ug/L		99
85)	1,3,5-trichlorobenzV	20.75	180	257085	21.029	ug/L		100
86)	1,2,4-trichlorobenzV	21.44	180	216772	20.939	ug/L		99
87)	hexachlorobutadieneV	21.56	225	92374	19.911	ug/L		99
88)	naphthaleneV	21.76	128	559279	21.413	ug/L		99
89)	1,2,3-trichlorobenzV	22.05	180	185107	20.740	ug/L		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 8:21 am Operator: BAM
Sample : STD 20 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 8:59 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:20 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	310827	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	249684	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	131291	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72395	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.86%			
35) SS 1,2-DCA-d4_MS	11.33	65	87669	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.26%			
48) SS Toluene-d8_MS	14.65	98	312142	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.54%			
65) SS 4-BFB_MS	18.13	95	124036	10.00	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.02%			
83) SS 1,2-DCB-d4_MS	19.75	152	131949	10.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.67%			
90) SS 2,5-DBT_MS	23.36	250	5789	4.45	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 11.14%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	15996	1.615	ug/L	96
3) chloromethane	3.19	50	15806	1.789	ug/L	99
4) vinyl chloride	3.34	62	8864	1.729	ug/L	99
5) bromomethane	3.99	94	9781	2.071	ug/L	91
6) chloroethane	4.12	64	9446	1.735	ug/L	96
7) trichlorofluoromethane	4.52	101	19222	1.646	ug/L	99
8) diethyl ether	5.02	59	10513	1.719	ug/L	94
9) 1,1,2-Trichlorotrifluoroet	5.27	101	13908	1.727	ug/L	99
11) acetone	5.39	43	4191	2.217	ug/L	98
12) 1,1-dichloroethene	5.62	96	15646	2.034	ug/L	97
13) tert-Butyl Alcohol(TBA)	5.78	59	7688	11.623	ug/L	92
14) Iodomethane	6.20	142	10136	0.742	ug/L #	99
15) methylene chloride	6.55	84	21055	2.585	ug/L	97
16) carbon disulfide	6.57	76	55849	2.417	ug/L #	95
17) acrylonitrile	6.82	53	6567	1.947	ug/L	98
18) Methyl-t-butyl ether(MTBE)	6.85	73	87087	4.063	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	19155	2.312	ug/L	99
20) hexane	7.28	57	22790	1.777	ug/L	98
21) Isopropyl ether(DIPE)	7.81	45	67255	2.339	ug/L	98
22) vinyl acetate	8.05	43	25437	1.724	ug/L	98
23) 1,1-dichloroethane	8.04	63	35981	2.357	ug/L	98
24) Ethyl-t-butyl ether(ETBE)	8.69	59	57762	2.274	ug/L	98
25) 2,2-dichloropropane	9.25	77	24159	2.090	ug/L	96
26) cis-1,2-dichloroethene	9.35	61	28734	2.405	ug/L	98
27) 2-butanone(MEK)	8.97	43	6106	1.755	ug/L #	98
28) bromochloromethane	10.08	128	10205	2.327	ug/L	97
29) Tetrahydrofuran(THF)	10.17	42	4647	1.986	ug/L	93
30) chloroform	9.71	83	33409	2.267	ug/L	98
32) 1,1,1-trichloroethane	10.60	97	25983	2.109	ug/L	99
33) carbon tetrachloride	11.17	117	20729	1.966	ug/L	100
34) 1,1-dichloropropene	10.96	75	27133	2.235	ug/L	99
36) tert-amyl methyl ether(TAM	11.24	73	50188	2.251	ug/L	98
37) benzene	11.55	78	84098	2.418	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:20 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

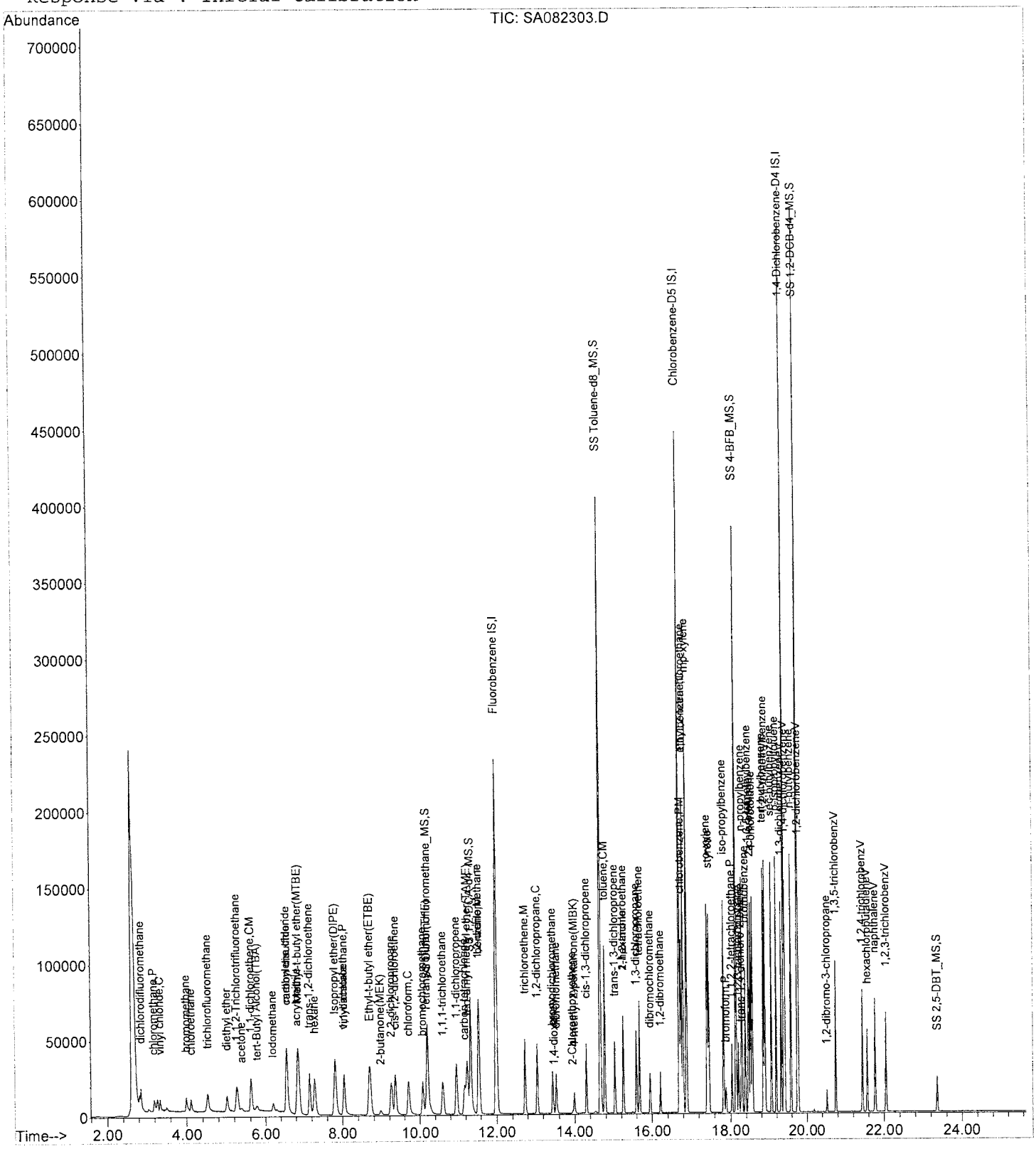
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,2-dichloroethane	11.53	62	28253	2.402 ug/L	99
39) trichloroethene	12.73	95	20668	2.199 ug/L	100
40) 1,2-dichloropropane	13.05	63	20773	2.374 ug/L	98
41) 1,4-dioxaneV	13.48	88	162	1.918 ug/L #	77
42) dibromomethane	13.53	93	11872	2.384 ug/L	96
43) bromodichloromethane	13.44	83	21288	2.037 ug/L	100
44) 2-Chloroethoxyethene	13.94	63	806	6.728 ug/L #	1
45) 4-methyl-2-pentanone(MIBK)	13.99	58	4353	1.588 ug/L	98
46) cis-1,3-dichloropropene	14.30	75	26464	2.105 ug/L	99
49) toluene	14.77	91	90966	2.373 ug/L	100
50) trans-1,3-dichloropropene	15.03	75	24104	2.041 ug/L	98
51) 1,1,2-trichloroethane	15.25	83	14139	2.336 ug/L	100
52) 2-hexanone	15.26	43	7969	1.637 ug/L	97
53) tetrachloroethene	15.67	166	22369	2.119 ug/L	98
54) 1,3-dichloropropane	15.59	76	30197	2.262 ug/L	100
55) dibromochloromethane	15.95	129	14243	2.027 ug/L #	100
56) 1,2-dibromoethane	16.22	107	17014	2.234 ug/L	99
57) chlorobenzene	16.74	112	62395	2.394 ug/L	100
58) 1,1,1,2-tetrachloroethane	16.78	131	17207	2.167 ug/L	98
59) ethylbenzene	16.79	91	102061	2.323 ug/L	99
60) mp-xylene	16.89	106	83274	4.584 ug/L	99
61) o-xylene	17.41	106	39945	2.355 ug/L	98
62) styrene	17.46	104	64676	2.313 ug/L	99
63) bromoform	17.89	173	7089	2.654 ug/L	97
64) iso-propylbenzene	17.83	105	93940	2.339 ug/L	100
67) bromobenzene	18.38	156	25580	2.337 ug/L	98
68) 1,1,2,2-tetrachloroethane	18.04	83	20770	2.379 ug/L #	1
69) 1,2,3-trichloropropane	18.20	110	6501	2.333 ug/L	94
70) trans-1,4-dichloro-2-buten	18.26	75	3031	2.421 ug/L #	85
71) n-propylbenzene	18.28	91	118956	2.404 ug/L	100
72) 2-chlorotoluene	18.51	91	73991	2.405 ug/L	100
73) 4-chlorotoluene	18.56	91	75702	2.454 ug/L	99
74) 1,3,5-trimethylbenzene	18.46	105	83209	2.363 ug/L	100
75) tert-butylbenzene	18.84	119	72684	2.326 ug/L	100
76) 1,2,4-trimethylbenzene	18.89	105	86748	2.417 ug/L	100
77) sec-butylbenzene	19.06	105	104484	2.403 ug/L	99
78) 1,3-dichlorobenzeneV	19.32	146	49581	2.393 ug/L	99
79) p-isopropyltoluene	19.19	119	88806	2.393 ug/L	99
80) 1,4-dichlorobenzeneV	19.42	146	50734	2.455 ug/L	95
81) 1,2-dichlorobenzeneV	19.78	146	46731	2.420 ug/L	93
82) n-butylbenzene	19.58	91	74894	2.373 ug/L	99
84) 1,2-dibromo-3-chloropropan	20.52	157	3019	2.810 ug/L	93
85) 1,3,5-trichlorobenzV	20.75	180	28248	2.317 ug/L	99
86) 1,2,4-trichlorobenzV	21.44	180	24365	2.360 ug/L	98
87) hexachlorobutadieneV	21.56	225	10292	2.224 ug/L	99
88) naphthaleneV	21.76	128	61950	2.378 ug/L	100
89) 1,2,3-trichlorobenzV	22.05	180	21420	2.406 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 8:56 am Operator: BAM
Sample : STD 2 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 9:30 am Operator: BAM
Sample : BlnkA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:24 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

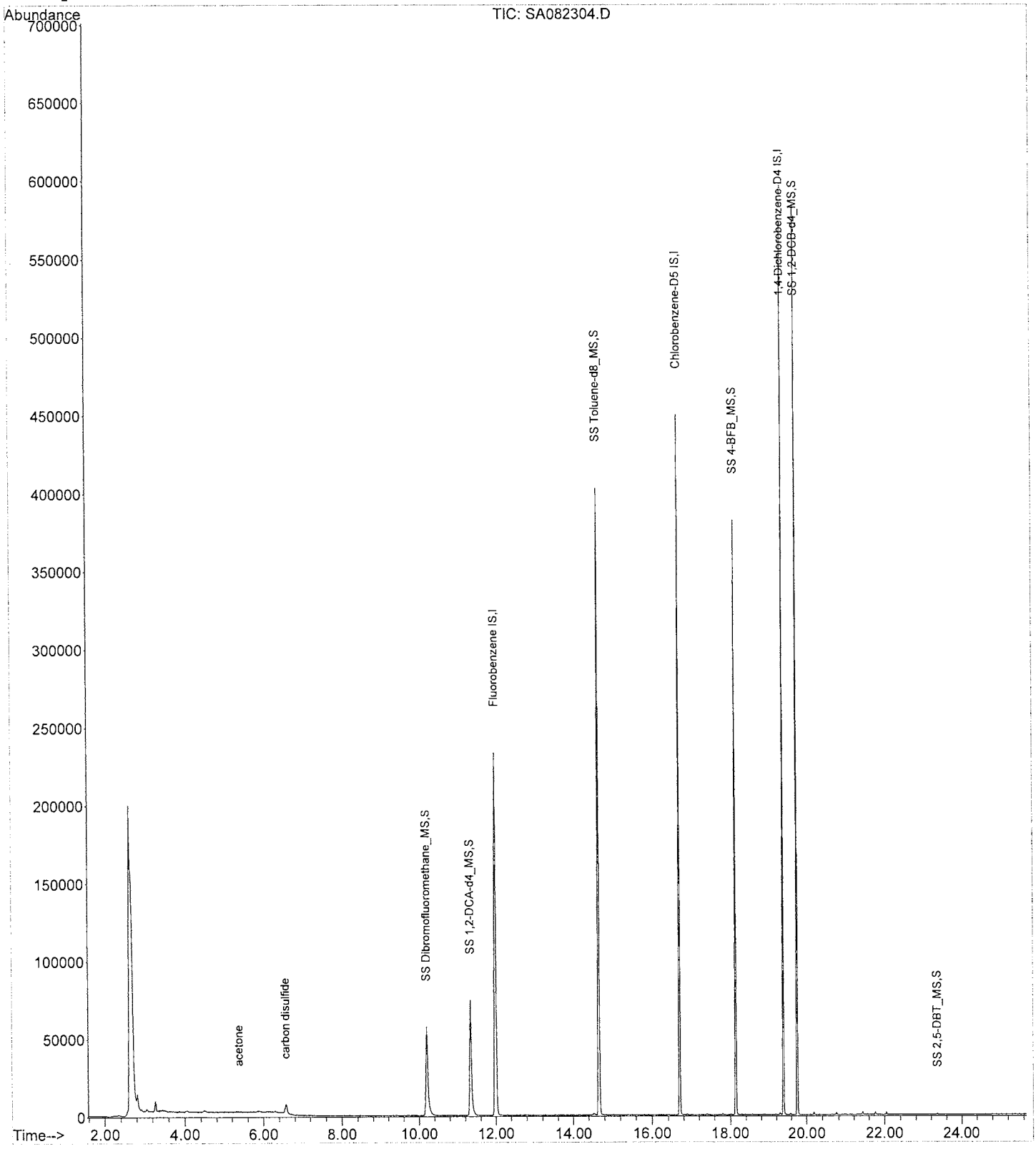
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	311185	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	248808	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	127553	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	71820	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.97%			
35) SS 1,2-DCA-d4_MS	11.33	65	87842	10.03	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.34%			
48) SS Toluene-d8_MS	14.65	98	311929	9.88	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.82%			
65) SS 4-BFB_MS	18.13	95	120812	9.78	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.76%			
83) SS 1,2-DCB-d4_MS	19.75	152	129987	10.21	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.08%			
90) SS 2,5-DBT_MS	23.36	250	190	2.76	ug/L	-0.01
Spiked Amount 40.000	Range 70 - 130		Recovery = 6.90%#			
Target Compounds						Qvalue
11) acetone	5.38	43	546	0.289	ug/L #	42
16) carbon disulfide	6.57	76	10778	0.466	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 9:30 am Operator: BAM
Sample : BlnkA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082308.D Vial: 8
Acq On : 23 Aug 2013 11:48 am Operator: BAM
Sample : 123705.09 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 07:34:15 2013 Quant Results File: 5VID0819.RES

Quant Method : C:\MSDCHEM\1...\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	301930	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	245327	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	125627	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	70754	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.47%			
35) SS 1,2-DCA-d4_MS	11.33	65	87123	10.26	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.57%			
48) SS Toluene-d8_MS	14.65	98	304906	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.96%			
65) SS 4-BFB_MS	18.13	95	118772	9.75	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 97.47%			
83) SS 1,2-DCB-d4_MS	19.75	152	128370	10.24	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.36%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
11) acetone	5.39	43	10054	5.476	ug/L	95
16) carbon disulfide	6.58	76	9187	0.409	ug/L #	82
70) trans-1,4-dichloro-2-buten	18.13	75	57205	~~-30.431~~	ug/L #	2

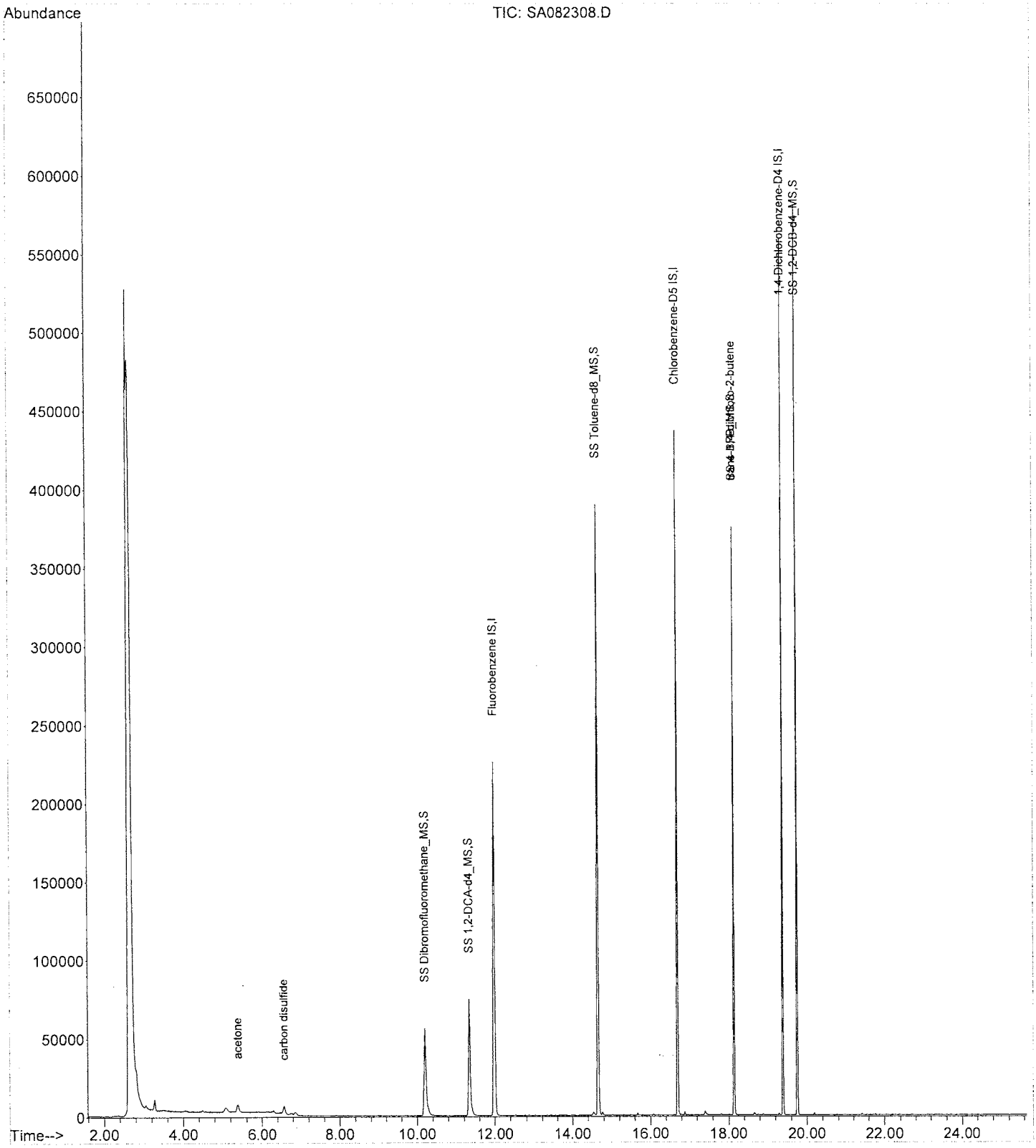
8/27/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\AUG2313\SA082308.D Vial: 8
Acq On : 23 Aug 2013 11:48 am Operator: BAM
Sample : 123705.09 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 26 7:34 2013 Quant Results File: 5VID0819.RES

Method : C:\MSDCHEM\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:45 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	299596	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	246012	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	132098	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	72350	10.25	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.51%			
35) SS 1,2-DCA-d4_MS	11.33	65	82731	9.82	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.16%			
48) SS Toluene-d8_MS	14.65	98	305107	9.78	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.75%			
65) SS 4-BFB_MS	18.13	95	122197	10.00	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 100.01%			
83) SS 1,2-DCB-d4_MS	19.75	152	132653	10.06	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.59%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	196844	20.614	ug/L	100
3) chloromethane	3.19	50	182023	21.376	ug/L	100
4) vinyl chloride	3.33	62	84111	22.111	ug/L	100
5) bromomethane	3.99	94	89520	19.663	ug/L	98
6) chloroethane	4.11	64	107596	20.504	ug/L	99
7) trichlorofluoromethane	4.52	101	222007	19.726	ug/L	100
8) diethyl ether	5.02	59	120459	20.430	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	146637	18.894	ug/L	99
10) acrolein	5.27	56	14463	23.113	ug/L	89
11) acetone	5.38	43	34519	18.948	ug/L	99
12) 1,1-dichloroethene	5.61	96	129379	17.449	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	58203	91.295	ug/L	94
14) Iodomethane	6.20	142	185409	18.266	ug/L #	99
15) methylene chloride	6.55	84	149194	19.003	ug/L	98
16) carbon disulfide	6.57	76	368240	16.531	ug/L	98
17) acrylonitrile	6.82	53	59880	18.421	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	396896	19.209	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	153683	19.242	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	533723	19.256	ug/L	99
22) vinyl acetate	8.05	43	162281	11.413	ug/L	100
23) 1,1-dichloroethane	8.04	63	289677	19.683	ug/L	99
24) Ethyl-t-butyl ether(ETBE)	8.69	59	463278	18.924	ug/L	99
25) 2,2-dichloropropane	9.24	77	210954	18.937	ug/L	97
26) cis-1,2-dichloroethene	9.36	61	250258	21.730	ug/L	95
27) 2-butanone(MEK)	8.96	43	65318	19.482	ug/L	98
28) bromochloromethane	10.08	128	83325	19.715	ug/L	100
29) Tetrahydrofuran(THF)	10.16	42	44370	19.678	ug/L	99
30) chloroform	9.71	83	282529	19.894	ug/L	99
32) 1,1,1-trichloroethane	10.59	97	219342	18.468	ug/L	99
33) carbon tetrachloride	11.17	117	185314	18.236	ug/L	99
34) 1,1-dichloropropene	10.96	75	214278	18.314	ug/L	99
36) tert-amyl methyl ether(TAM	11.23	73	417582	19.428	ug/L #	54
37) benzene	11.55	78	682087	20.345	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:00:45 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

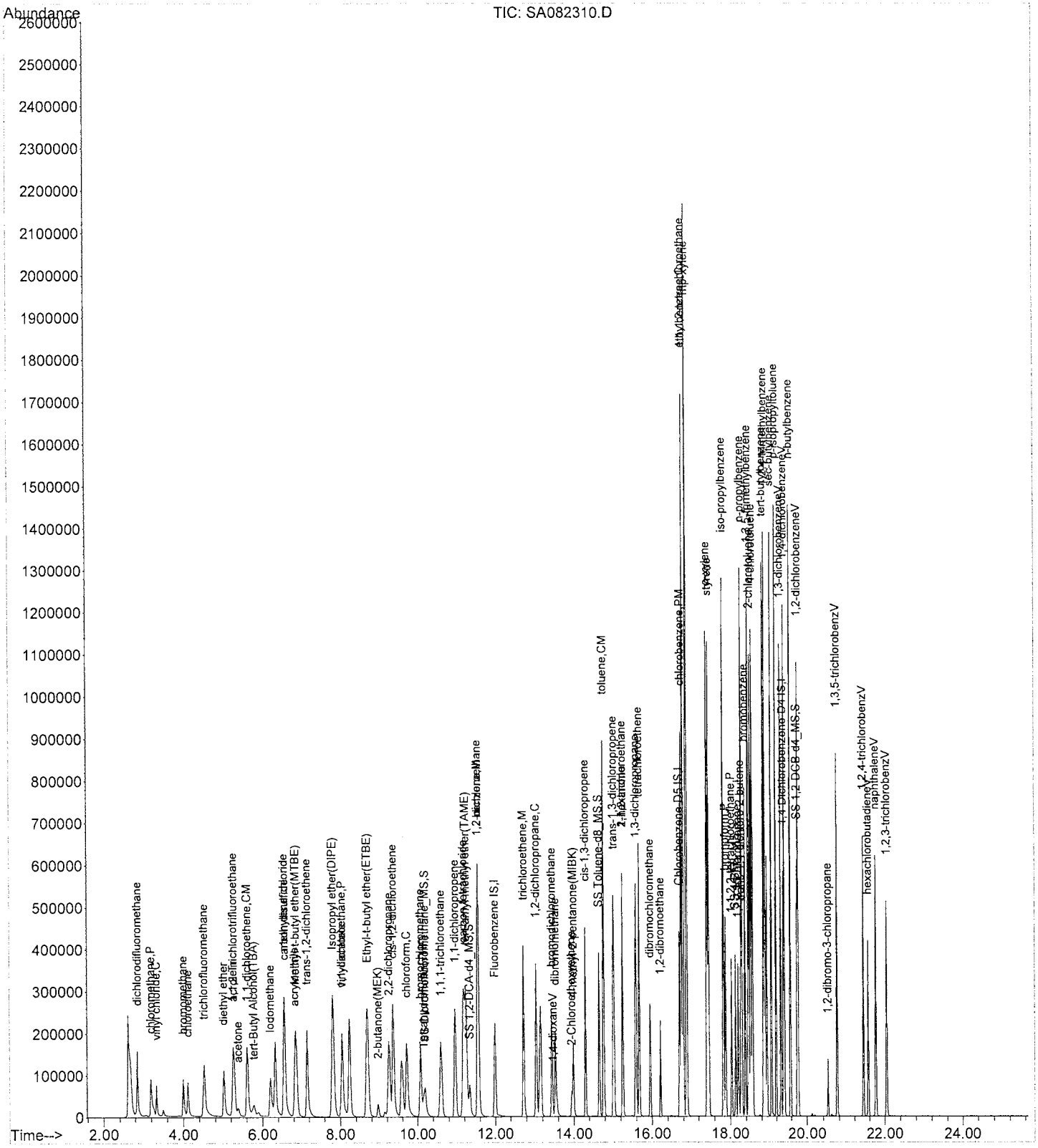
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	222822	19.654 ug/L	99
39)	trichloroethene	12.73	95	167541	18.498 ug/L	99
40)	1,2-dichloropropane	13.05	63	170757	20.242 ug/L	98
41)	1,4-dioxaneV	13.48	88	2096	25.752 ug/L	99
42)	dibromomethane	13.53	93	96244	20.050 ug/L	98
43)	bromodichloromethane	13.44	83	187448	18.606 ug/L	100
44)	2-Chloroethoxyethene	13.94	63	27245	21.863 ug/L #	38
45)	4-methyl-2-pentanone(MIBK)	13.98	58	56189	21.273 ug/L	97
46)	cis-1,3-dichloropropene	14.30	75	258462	21.330 ug/L	99
49)	toluene	14.77	91	749955	19.856 ug/L	100
50)	trans-1,3-dichloropropene	15.03	75	222207	19.093 ug/L #	76
51)	1,1,2-trichloroethane	15.25	83	118981	19.950 ug/L	98
52)	2-hexanone	15.25	43	99991	20.849 ug/L	99
53)	tetrachloroethene	15.67	166	198239	19.062 ug/L	99
54)	1,3-dichloropropane	15.60	76	252185	19.170 ug/L #	83
55)	dibromochloromethane	15.95	129	143083	17.240 ug/L #	100
56)	1,2-dibromoethane	16.22	107	146151	19.476 ug/L	100
57)	chlorobenzene	16.74	112	502767	19.576 ug/L	100
58)	1,1,1,2-tetrachloroethane	16.79	131	155904	19.932 ug/L	99
59)	ethylbenzene	16.79	91	855764	19.767 ug/L	99
60)	mp-xylene	16.89	106	690072	38.551 ug/L	98
61)	o-xylene	17.41	106	333861	19.974 ug/L	99
62)	styrene	17.46	104	573763	20.827 ug/L	99
63)	bromoform	17.89	173	82987	16.635 ug/L #	93
64)	iso-propylbenzene	17.83	105	864817	21.850 ug/L	99
67)	bromobenzene	18.38	156	214068	19.441 ug/L	99
68)	1,1,2,2-tetrachloroethane	18.04	83	175380	19.967 ug/L	99
69)	1,2,3-trichloropropane	18.20	110	54220	19.339 ug/L	99
70)	trans-1,4-dichloro-2-buten	18.26	75	64752	32.687 ug/L #	83
71)	n-propylbenzene	18.28	91	1029036	20.669 ug/L	100
72)	2-chlorotoluene	18.51	91	598176	19.325 ug/L	100
73)	4-chlorotoluene	18.56	91	622633	20.062 ug/L	100
74)	1,3,5-trimethylbenzene	18.46	105	713517	20.136 ug/L	99
75)	tert-butylbenzene	18.84	119	627691	19.960 ug/L	99
76)	1,2,4-trimethylbenzene	18.89	105	730604	20.231 ug/L	99
77)	sec-butylbenzene	19.06	105	889843	20.341 ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	413919	19.855 ug/L	100
79)	p-isopropyltoluene	19.19	119	780662	20.904 ug/L	100
80)	1,4-dichlorobenzeneV	19.42	146	414583	19.936 ug/L	100
81)	1,2-dichlorobenzeneV	19.78	146	383437	19.733 ug/L	100
82)	n-butylbenzene	19.58	91	656611	20.675 ug/L	100
84)	1,2-dibromo-3-chloropropan	20.52	157	31352	17.548 ug/L	99
85)	1,3,5-trichlorobenzV	20.75	180	247432	20.168 ug/L	99
86)	1,2,4-trichlorobenzV	21.44	180	202193	19.462 ug/L	99
87)	hexachlorobutadieneV	21.56	225	78782	16.921 ug/L	99
88)	naphthaleneV	21.76	128	517663	19.749 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	172782	19.291 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 12:57 pm Operator: BAM
Sample : LCSaA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:00 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:01:10 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	11.99	96	308392	10.000	ug/L	0.00
47) Chlorobenzene-D5 IS	16.69	117	255451	10.000	ug/L	0.00
66) 1,4-Dichlorobenzene-D4 IS	19.39	152	136135	10.000	ug/L	0.00
System Monitoring Compounds						
31) SS Dibromofluoromethane_MS	10.20	111	73446	10.11	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.09%			
35) SS 1,2-DCA-d4_MS	11.34	65	84934	9.79	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.90%			
48) SS Toluene-d8_MS	14.65	98	317843	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.07%			
65) SS 4-BFB_MS	18.13	95	126170	9.94	ug/L	0.00
Spiked Amount 10.000	Range 86 - 115		Recovery = 99.44%			
83) SS 1,2-DCB-d4_MS	19.75	152	136190	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.21%			
90) SS 2,5-DBT_MS	0.00	250	0	0.00	ug/L	
Spiked Amount 40.000	Range 70 - 130		Recovery = 0.00%#			
Target Compounds						Qvalue
2) dichlorodifluoromethane	2.85	85	205656	20.923	ug/L	100
3) chloromethane	3.19	50	193374	22.061	ug/L	100
4) vinyl chloride	3.34	62	90402	23.112	ug/L	100
5) bromomethane	3.99	94	102767	21.929	ug/L	98
6) chloroethane	4.11	64	112995	20.919	ug/L	99
7) trichlorofluoromethane	4.52	101	231922	20.019	ug/L	100
8) diethyl ether	5.02	59	123763	20.392	ug/L	99
9) 1,1,2-Trichlorotrifluoroet	5.27	101	152270	19.061	ug/L	99
10) acrolein	5.27	56	14182	22.018	ug/L	85
11) acetone	5.39	43	35078	18.706	ug/L	98
12) 1,1-dichloroethene	5.61	96	135316	17.729	ug/L	99
13) tert-Butyl Alcohol(TBA)	5.78	59	54969	83.763	ug/L	91
14) Iodomethane	6.20	142	199414	19.096	ug/L #	100
15) methylene chloride	6.55	84	156128	19.319	ug/L	99
16) carbon disulfide	6.57	76	394301	17.196	ug/L	98
17) acrylonitrile	6.81	53	60059	17.949	ug/L	96
18) Methyl-t-butyl ether(MTBE)	6.85	73	406758	19.125	ug/L	98
19) trans-1,2-dichloroethene	7.15	96	161695	19.668	ug/L	99
21) Isopropyl ether(DIPE)	7.81	45	555646	19.476	ug/L	100
22) vinyl acetate	8.05	43	165420	11.302	ug/L	99
23) 1,1-dichloroethane	8.04	63	300721	19.851	ug/L	100
24) Ethyl-t-butyl ether(ETBE)	8.69	59	475295	18.861	ug/L	98
25) 2,2-dichloropropane	9.25	77	219812	19.170	ug/L	98
26) cis-1,2-dichloroethene	9.35	61	255792	21.577	ug/L	96
27) 2-butanone(MEK)	8.96	43	65340	18.932	ug/L	99
28) bromochloromethane	10.08	128	87321	20.071	ug/L	99
29) Tetrahydrofuran(THF)	10.16	42	43526	18.753	ug/L	97
30) chloroform	9.71	83	294371	20.136	ug/L	100
32) 1,1,1-trichloroethane	10.59	97	229597	18.780	ug/L	99
33) carbon tetrachloride	11.17	117	197219	18.854	ug/L	99
34) 1,1-dichloropropene	10.96	75	226119	18.775	ug/L	98
36) tert-amyl methyl ether(TAM	11.23	73	431482	19.503	ug/L #	56
37) benzene	11.55	78	711656	20.621	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 09:01:10 2013 Quant Results File: 5VID0819.RES

Quant Method : U:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration
DataAcq Meth : VOCMS

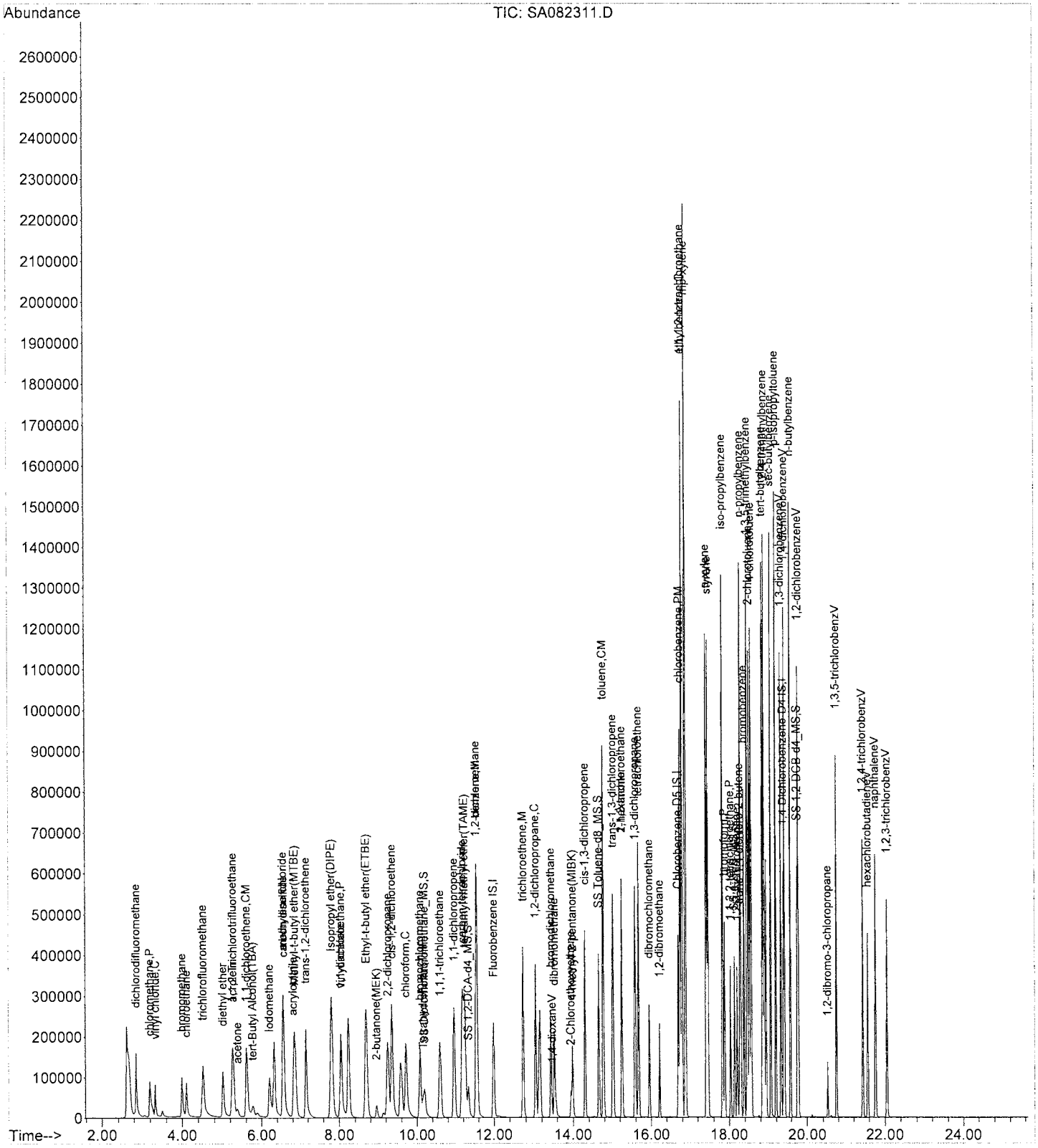
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	1,2-dichloroethane	11.53	62	227077	19.459 ug/L	99
39)	trichloroethene	12.73	95	174300	18.696 ug/L	99
40)	1,2-dichloropropane	13.05	63	177538	20.446 ug/L	97
41)	1,4-dioxaneV	13.48	88	2093	24.981 ug/L	97
42)	dibromomethane	13.53	93	99324	20.102 ug/L	98
43)	bromodichloromethane	13.44	83	193999	18.707 ug/L	100
44)	2-Chloroethoxyethene	13.95	63	29094	22.427 ug/L #	30
45)	4-methyl-2-pentanone(MIBK)	13.98	58	56411	20.748 ug/L	97
46)	cis-1,3-dichloropropene	14.30	75	266908	21.399 ug/L	98
49)	toluene	14.77	91	777248	19.819 ug/L	100
50)	trans-1,3-dichloropropene	15.03	75	229590	18.998 ug/L #	77
51)	1,1,2-trichloroethane	15.25	83	120848	19.515 ug/L	98
52)	2-hexanone	15.25	43	99452	19.970 ug/L	100
53)	tetrachloroethene	15.67	166	208263	19.286 ug/L	99
54)	1,3-dichloropropane	15.59	76	257065	18.819 ug/L #	84
55)	dibromochloromethane	15.95	129	148157	17.193 ug/L #	100
56)	1,2-dibromoethane	16.22	107	148458	19.052 ug/L	100
57)	chlorobenzene	16.74	112	520650	19.523 ug/L	99
58)	1,1,1,2-tetrachloroethane	16.79	131	162164	19.966 ug/L	99
59)	ethylbenzene	16.79	91	892070	19.844 ug/L	100
60)	mp-xylene	16.89	106	718341	38.647 ug/L	99
61)	o-xylene	17.41	106	347202	20.005 ug/L	98
62)	styrene	17.46	104	594824	20.794 ug/L	99
63)	bromoform	17.89	173	85940	16.594 ug/L #	92
64)	iso-propylbenzene	17.83	105	901150	21.927 ug/L	100
67)	bromobenzene	18.38	156	221260	19.498 ug/L	98
68)	1,1,2,2-tetrachloroethane	18.04	83	175154	19.350 ug/L	99
69)	1,2,3-trichloropropane	18.21	110	54099	18.724 ug/L	98
70)	trans-1,4-dichloro-2-buten	18.26	75	66268	32.467 ug/L #	83
71)	n-propylbenzene	18.28	91	1069850	20.852 ug/L	100
72)	2-chlorotoluene	18.51	91	620441	19.450 ug/L	100
73)	4-chlorotoluene	18.56	91	639114	19.982 ug/L	99
74)	1,3,5-trimethylbenzene	18.46	105	738186	20.214 ug/L	99
75)	tert-butylbenzene	18.84	119	651845	20.114 ug/L	99
76)	1,2,4-trimethylbenzene	18.89	105	755174	20.291 ug/L	99
77)	sec-butylbenzene	19.06	105	923771	20.490 ug/L	100
78)	1,3-dichlorobenzeneV	19.32	146	426677	19.860 ug/L	100
79)	p-isopropyltoluene	19.19	119	811103	21.075 ug/L	100
80)	1,4-dichlorobenzeneV	19.42	146	430556	20.090 ug/L	100
81)	1,2-dichlorobenzeneV	19.78	146	393633	19.657 ug/L	100
82)	n-butylbenzene	19.58	91	683432	20.881 ug/L	99
84)	1,2-dibromo-3-chloropropan	20.52	157	31556	17.168 ug/L	99
85)	1,3,5-trichlorobenzV	20.75	180	258055	20.410 ug/L	99
86)	1,2,4-trichlorobenzV	21.44	180	208287	19.454 ug/L	99
87)	hexachlorobutadieneV	21.56	225	84340	17.578 ug/L	99
88)	naphthaleneV	21.76	128	533376	19.745 ug/L	99
89)	1,2,3-trichlorobenzV	22.05	180	179921	19.492 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\1\DATA\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 1:31 pm Operator: BAM
Sample : LCSDA082313VNH822 Inst : VOAMS5
Misc : x1; 5mL; Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 27 9:01 2013 Quant Results File: 5VID0819.RES

Method : W:\1\METHODS\2013\5VID0819.M (RTE Integrator)
Title : VOAMS5 05/14/2013
Last Update : Fri Aug 23 12:44:08 2013
Response via : Initial Calibration



8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VO

Date: 5/10/23

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	SAES001	BKB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMSD	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BKB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS					VOC			
13	13	LCSD					VOC			
14	14	Blank					VOC			
15	15	120626.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BKB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS					VOC			
28	28	LCSD					VOC			
29	29	Blank					VOC			
30	30	120626.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	17					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120711.02				✓	VOC			
39	39	01		✓		x100	VOC			
40	1						VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/23

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

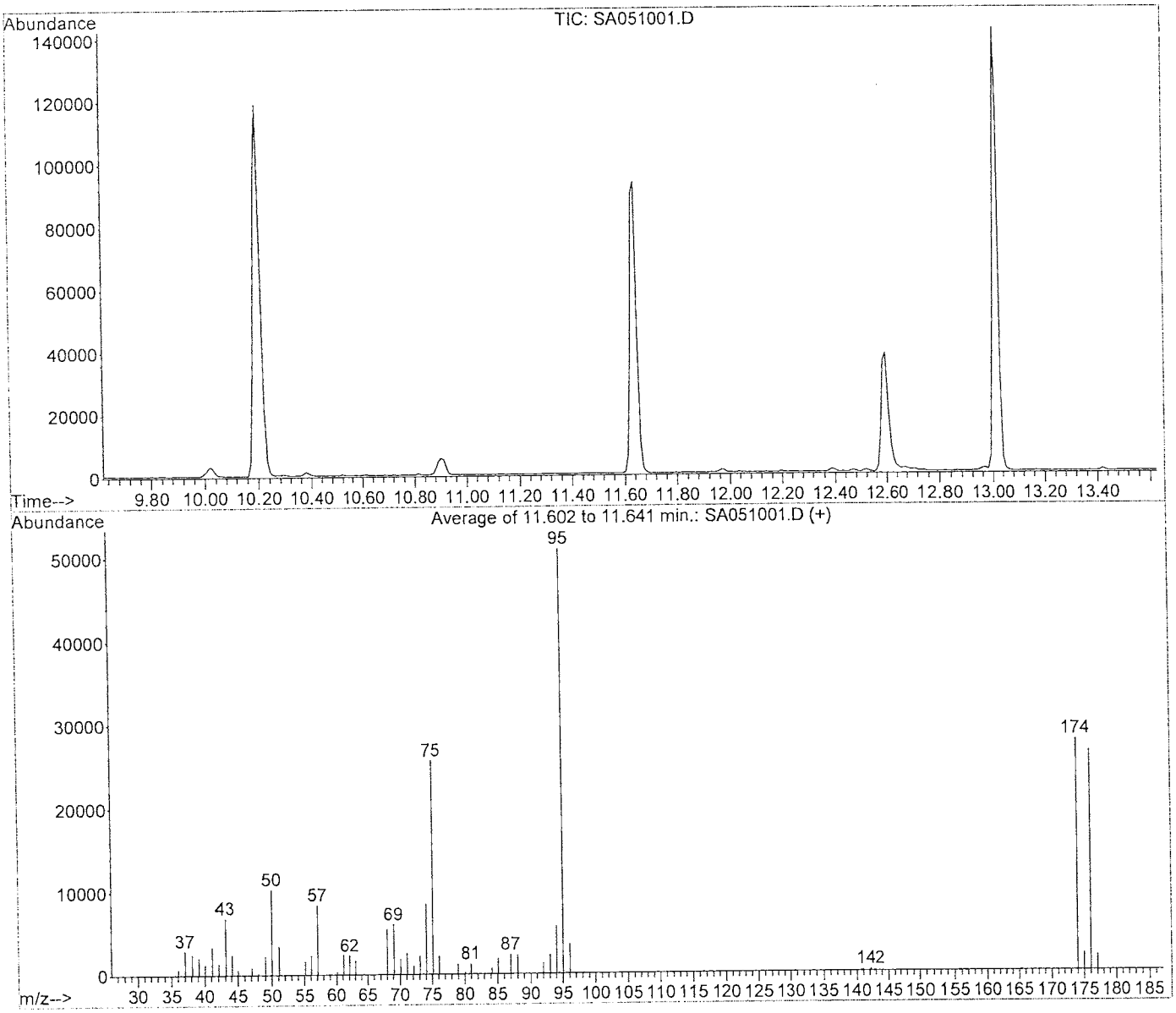
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

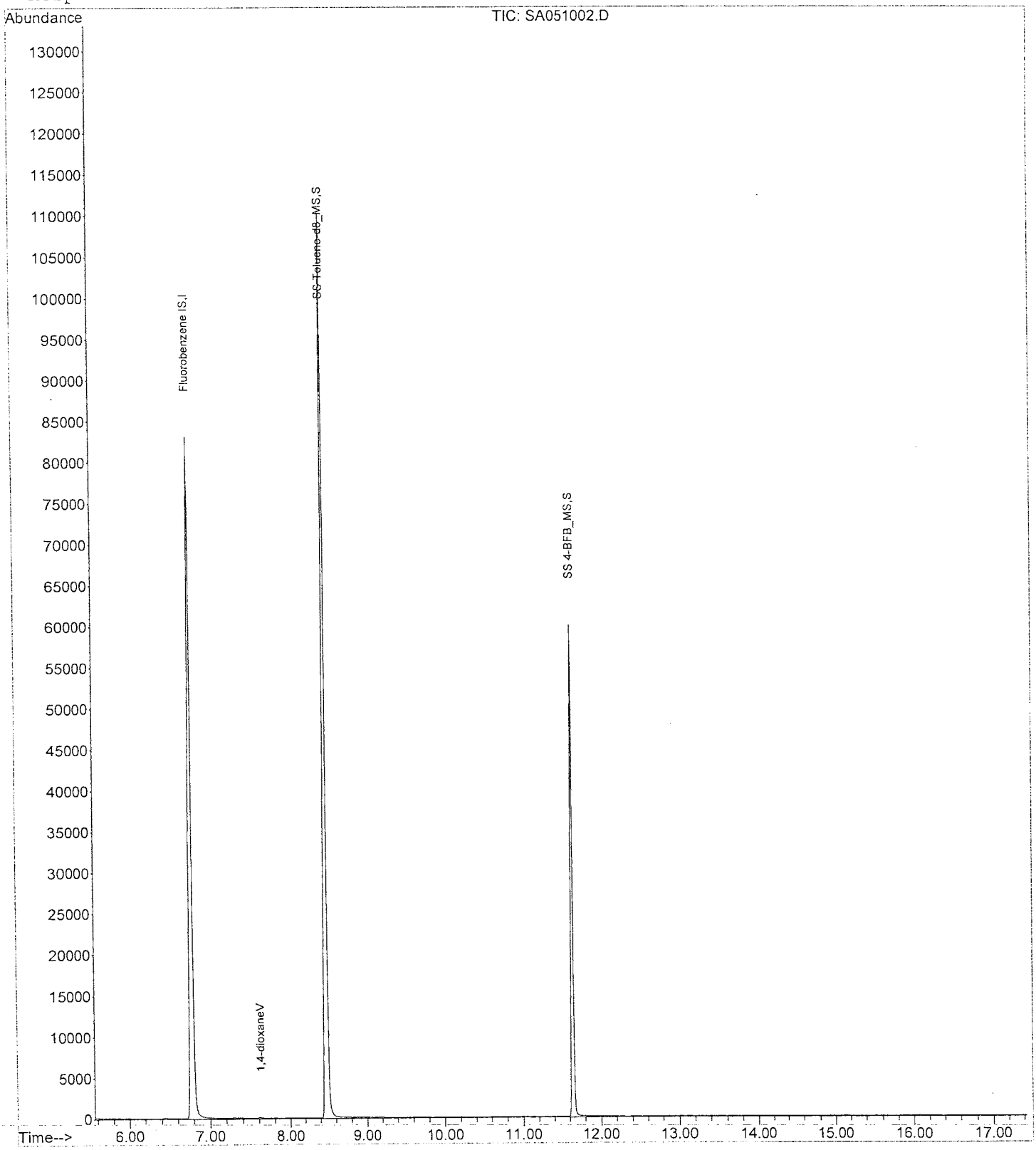
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	160084	9.79	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS	11.64	95	56746	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

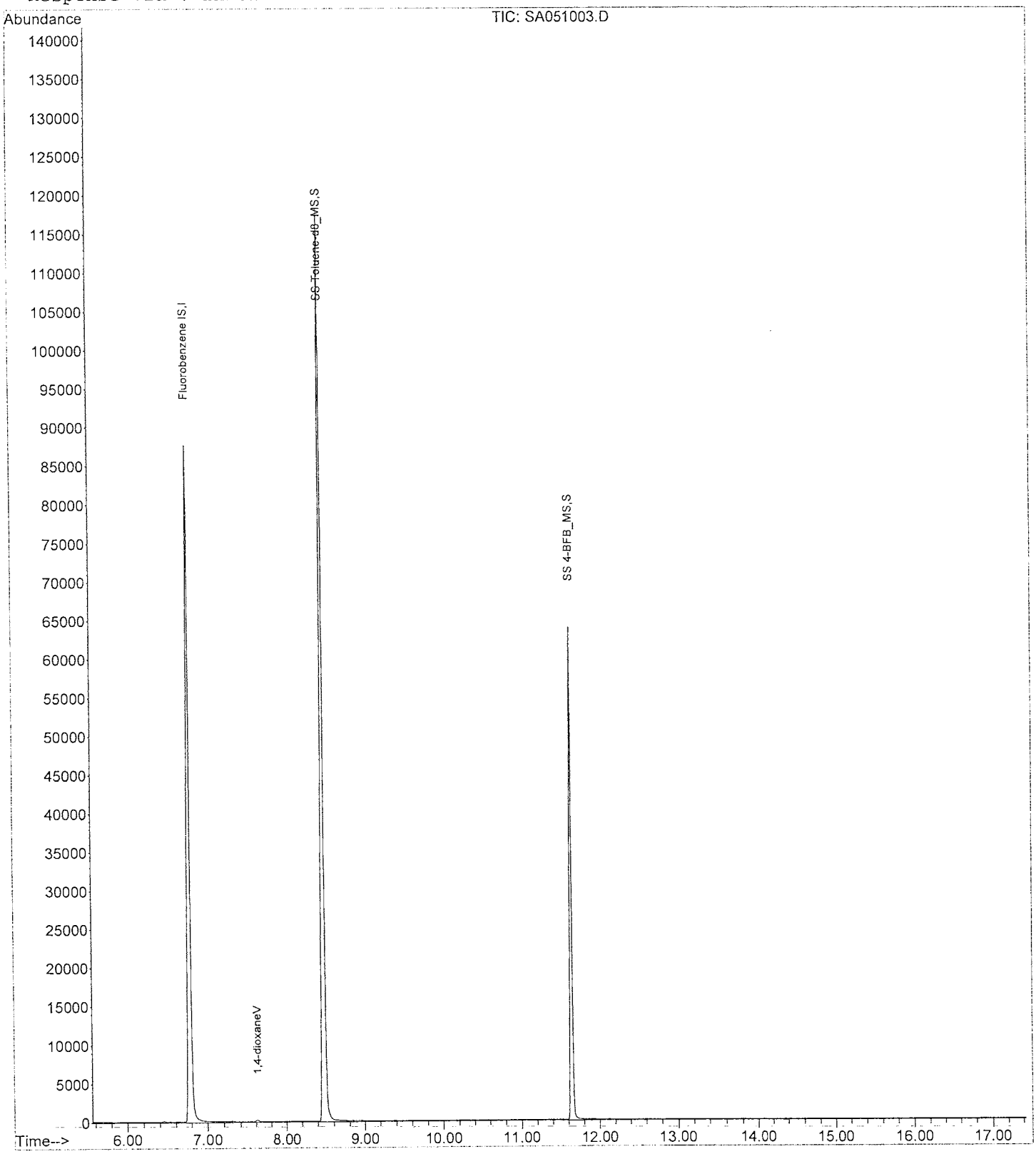
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

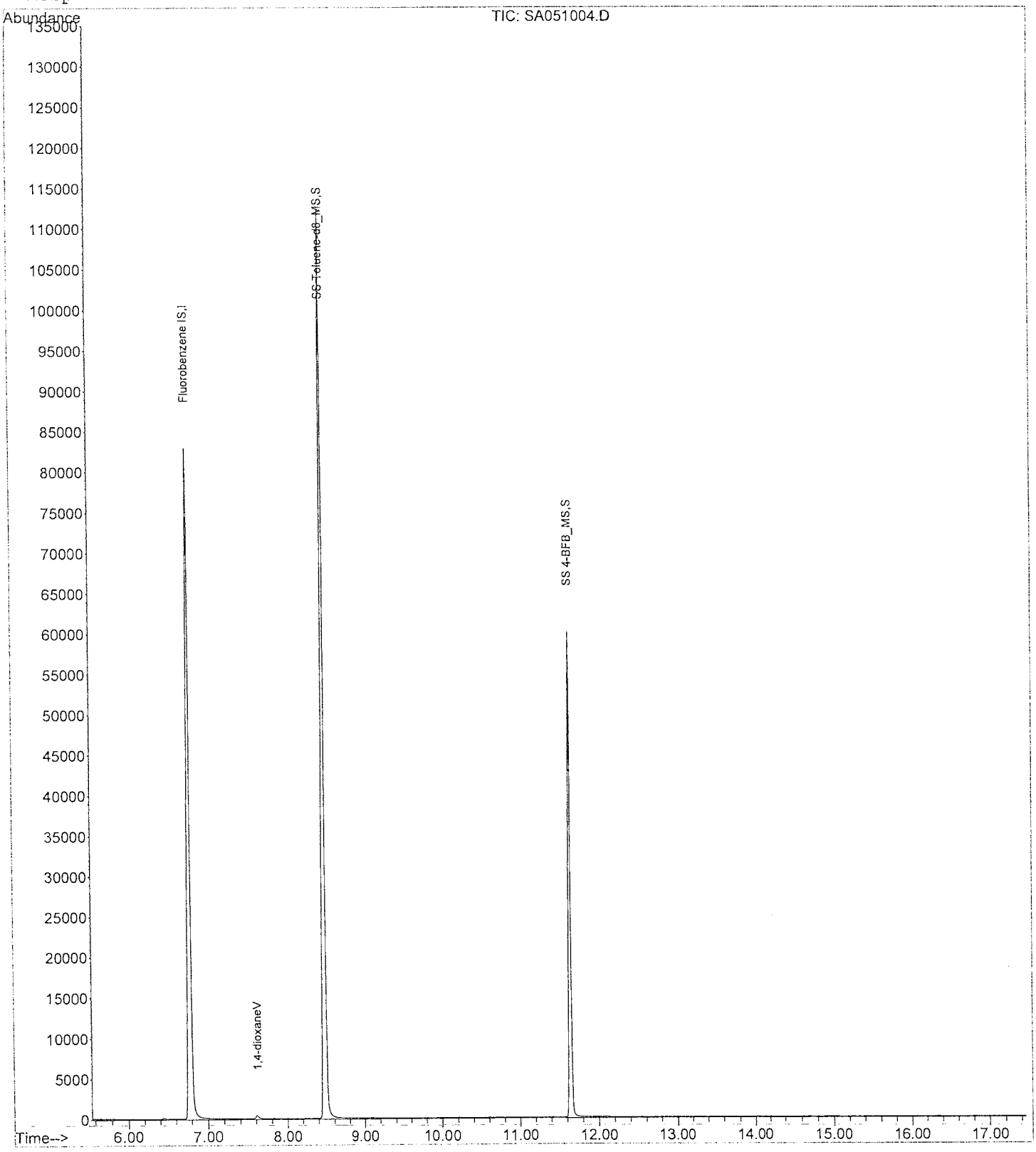
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

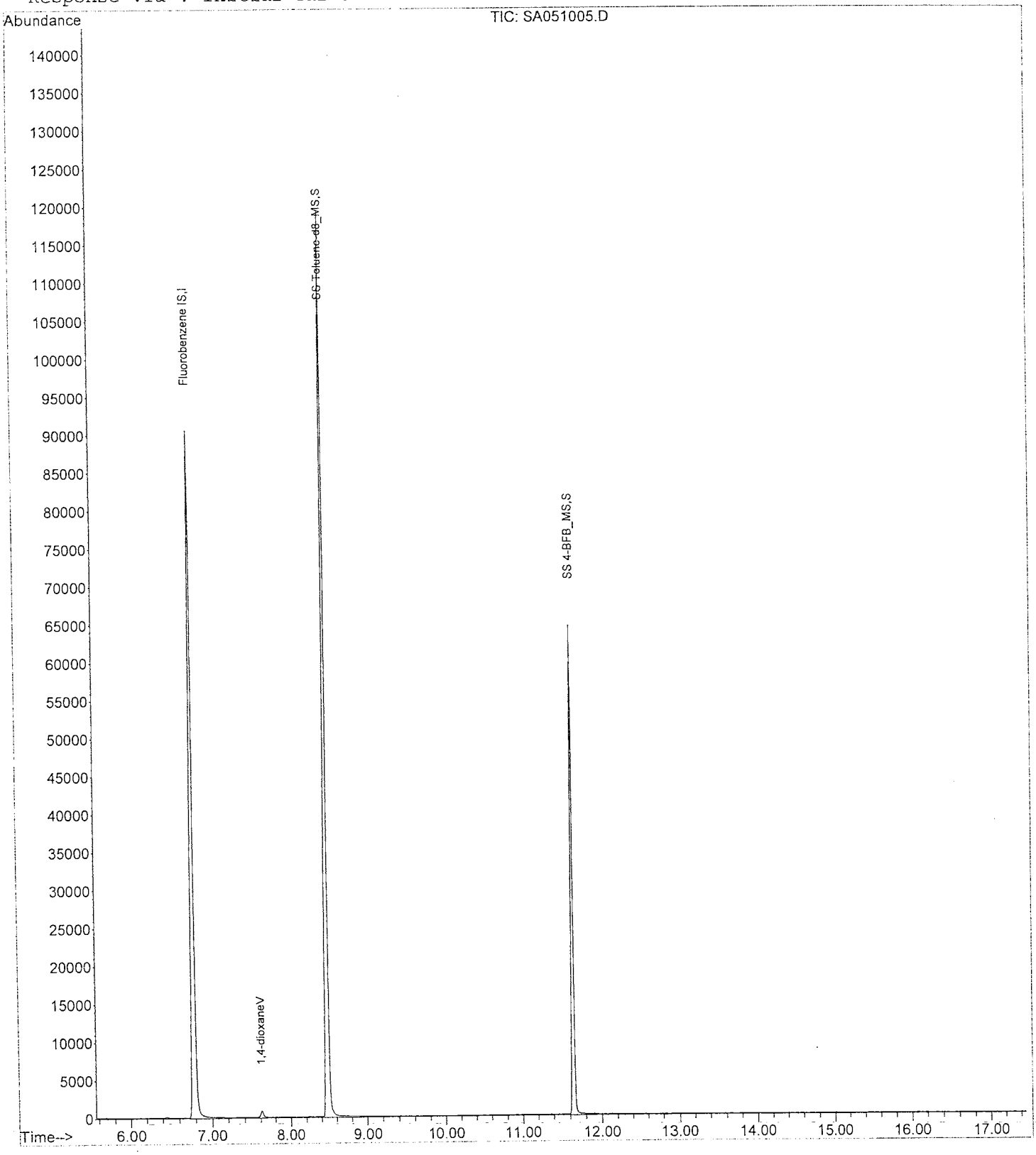
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170943	9.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.75%			
4) SS 4-BFB_MS	11.64	95	59771	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

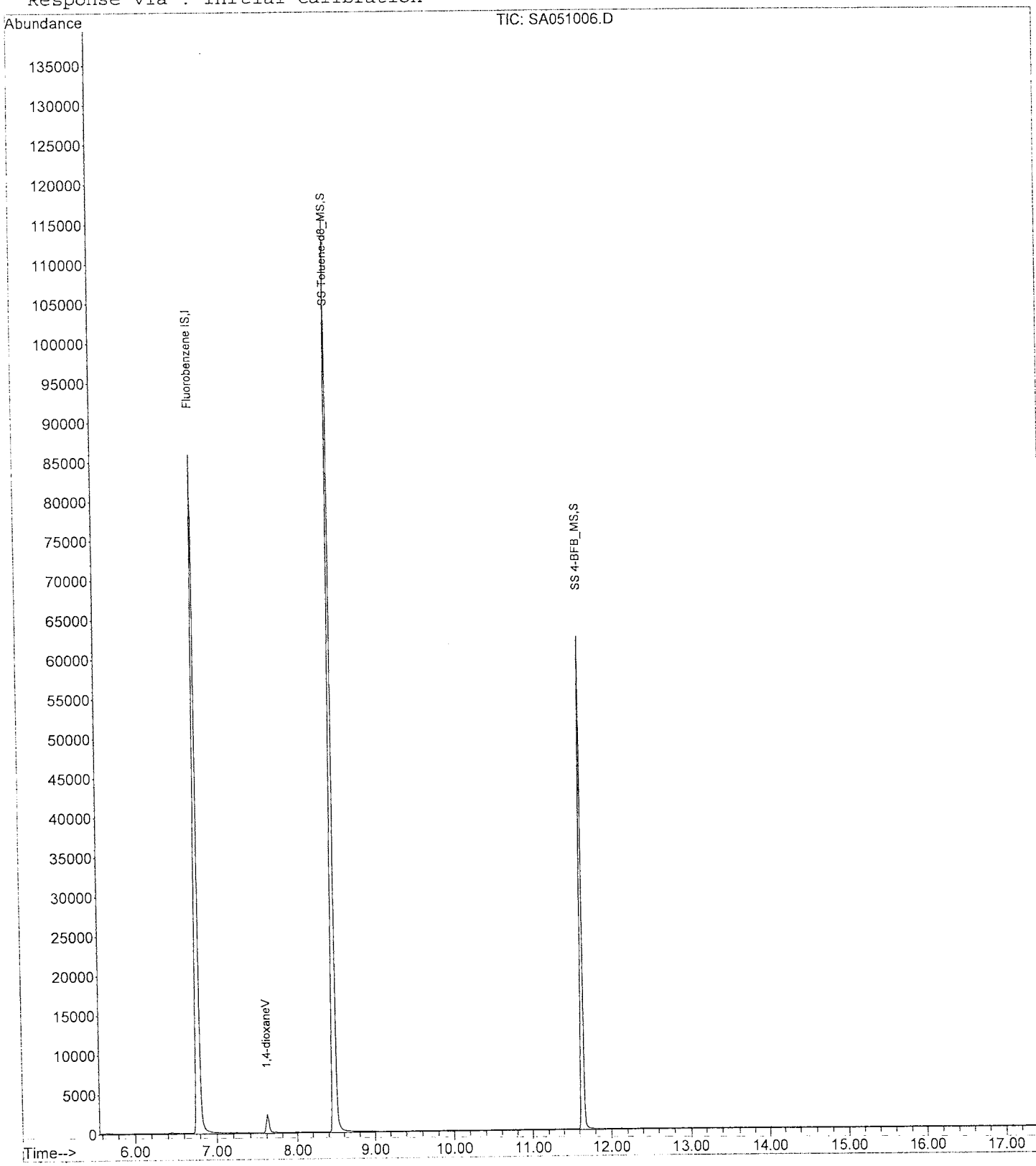
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

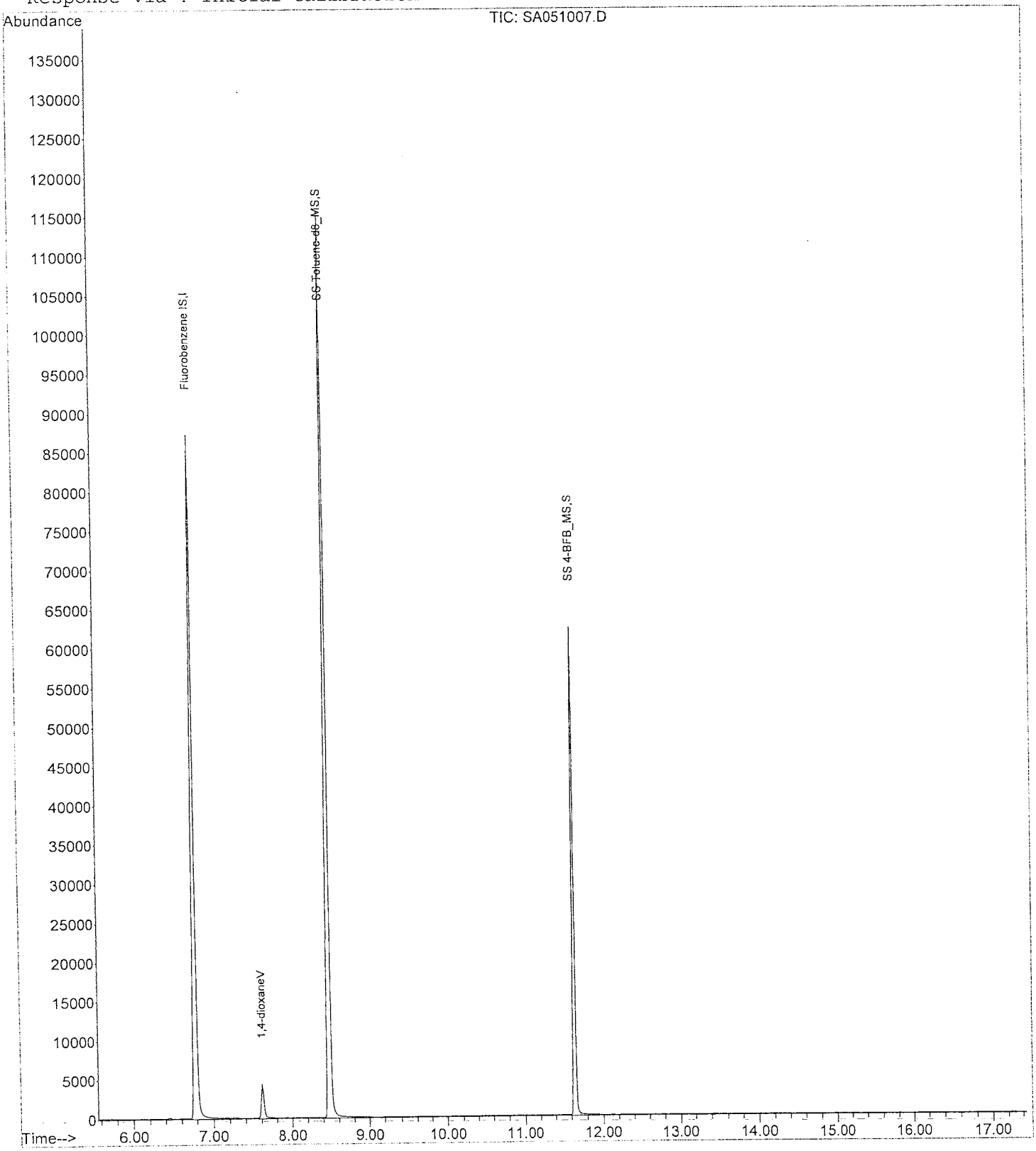
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	159671	9.27	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	92.72%		
4) SS 4-BFB_MS		11.64	95	58595	9.92	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	99.24%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

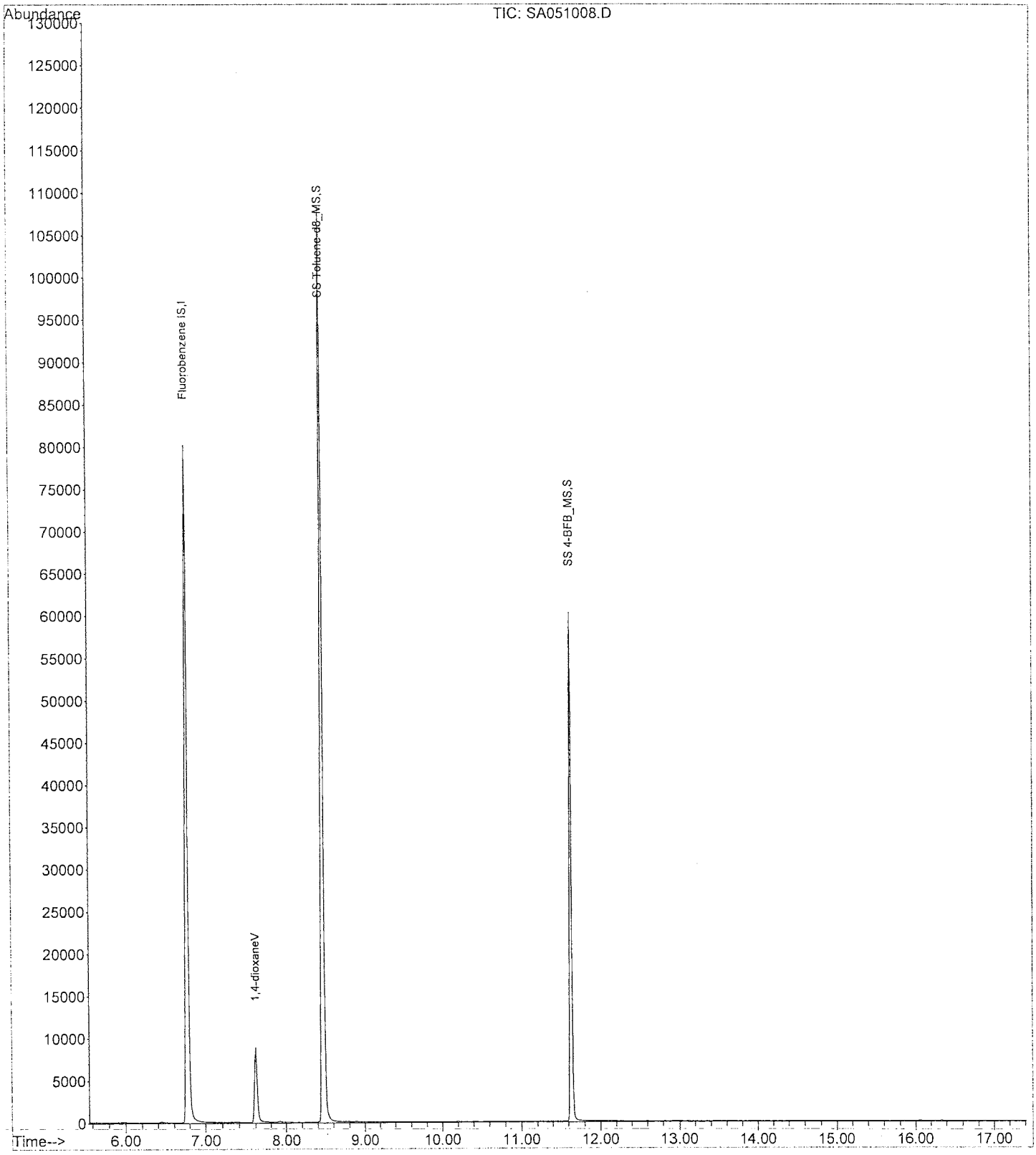
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	149017	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%			
4) SS 4-BFB_MS	11.64	95	55675	10.21	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

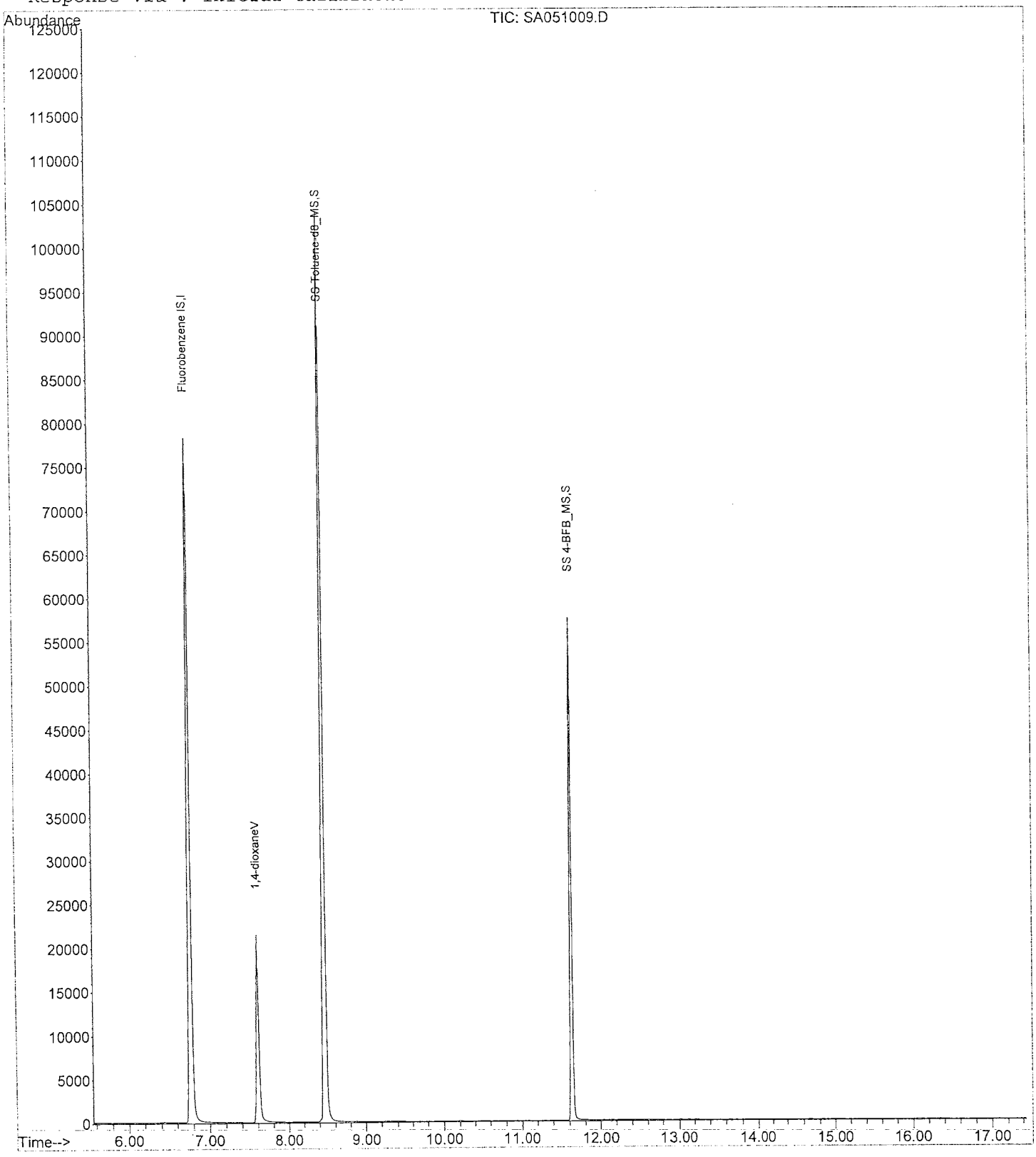
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	148830	9.89	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS	11.63	95	52945	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

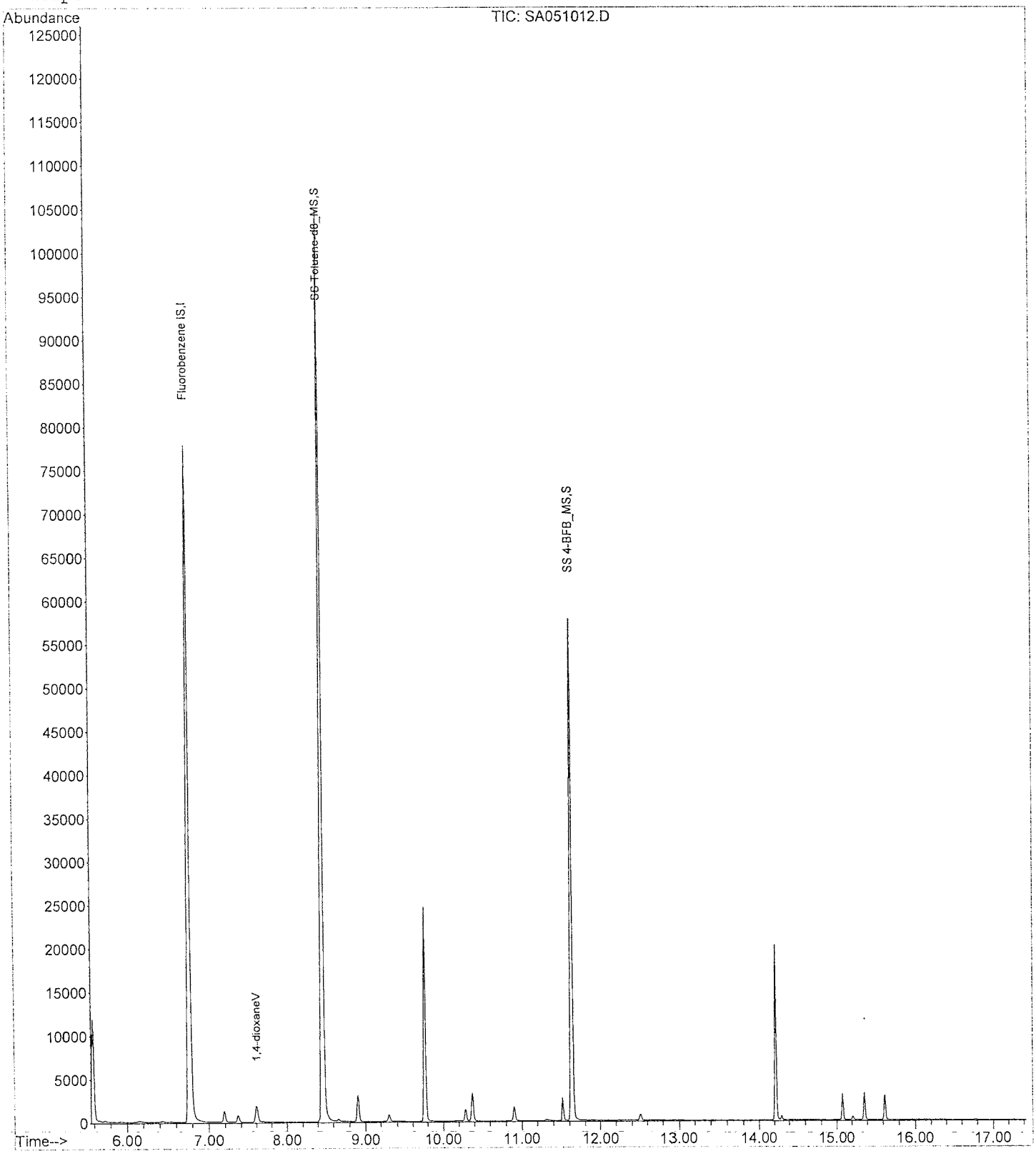
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%			
4) SS 4-BFB_MS	11.63	95	52679	10.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

Professional laboratory & drilling services

123705
1,4 Dioxane by 8260B SIM
Support Data

IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VG

Date: 8/21/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA08101	BMB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	5IM050		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank				↓	VOC			
6	6	123049.06 MS				X10	VOC			
7	7	MSD				X10	VOC			
8	8	123060.01				X5	VOC			
9	9	03				X5	VOC			
10	10	04				X10	VOC			
11	11	06				X1	VOC			
12	12	123705.01					VOC			
13	13	02					VOC			
14	14	04					VOC			
15	15	05					VOC			
16	16	STD.25					VOC			
17	17	BMB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123705.06					VOC			
23	23	07					VOC			
24	24	08					VOC			
25	25	09					VOC			
26	26	10					VOC			
27	27	123704.06				↓	VOC			
28	28	02				X10	VOC			
29	29	03					VOC			
30	30	04MS					VOC			
31	31	04MSD		✓		↓	VOC			
							VOC			
							VOC			
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							VOC			
							VOC			

Samples removed from autosampler, order verified by_____

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D
Tune Time : 21 Aug 2013 11:16 am

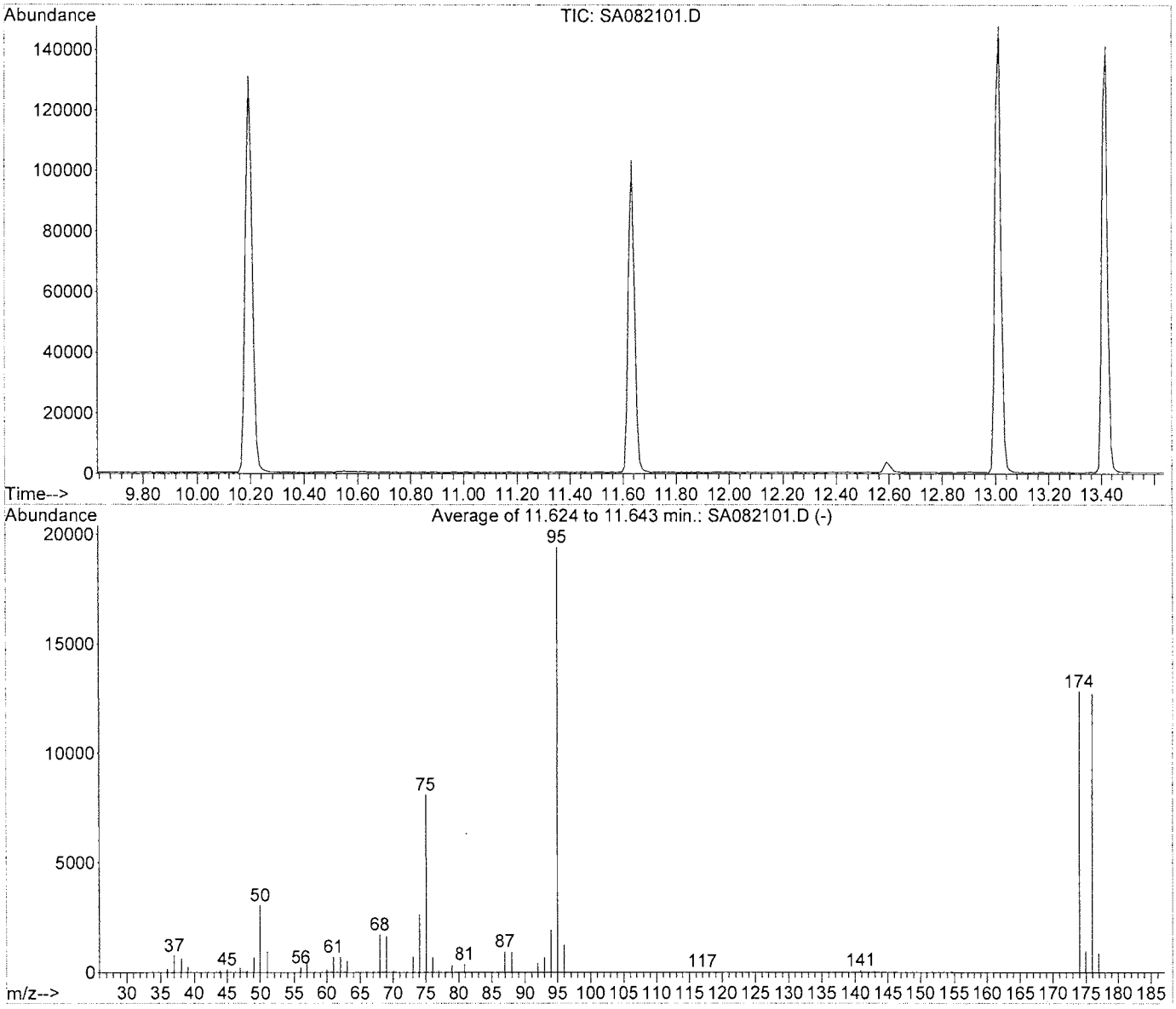
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D

				181533
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082102.D	STD5	97	109	181533
SA082103.D	LCS5	95	104	178431
SA082104.D	LCSD	97	104	178225
SA082105.D	BLANK	96	105	176829
SA082106.D	123649.06M	102	106	174878
SA082107.D	123649.06M	97	105	175883
SA082108.D	123650.01	102	108	174522
SA082109.D	123650.03	100	107	176431
SA082110.D	123650.04	101	106	177560
SA082111.D	123650.06	96	107	166242
SA082112.D	123705.01	97	109	157923
SA082113.D	123705.02	98	111	157712
SA082114.D	123705.04	97	109	158204
SA082115.D	123705.05	97	110	157532
SA082116.Dt	STD0.25	101	110	159681

t - fails 12hr time check * - fails criteria

Created: Thu Aug 22 09:03:49 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082101.D Vial: 1
Acq On : 21 Aug 2013 11:16 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.624 to 11.643 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	3059	PASS
75	95	30	60	41.7	8107	PASS
95	95	100	100	100.0	19418	PASS
96	95	5	9	6.5	1256	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	66.1	12837	PASS
175	174	5	9	7.5	967	PASS
176	174	95	101	99.3	12747	PASS
177	176	5	9	6.9	875	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	114	0.00
2		1,4-dioxaneV	5.000	4.026	19.5	92	0.00
3	S	SS Toluene-d8_MS	10.000	9.669	3.3	109	0.00
4	S	SS 4-BFB_MS	10.000	10.854	-8.5	125	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Thu Aug 22 15:36:17 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 21 12:25:25 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

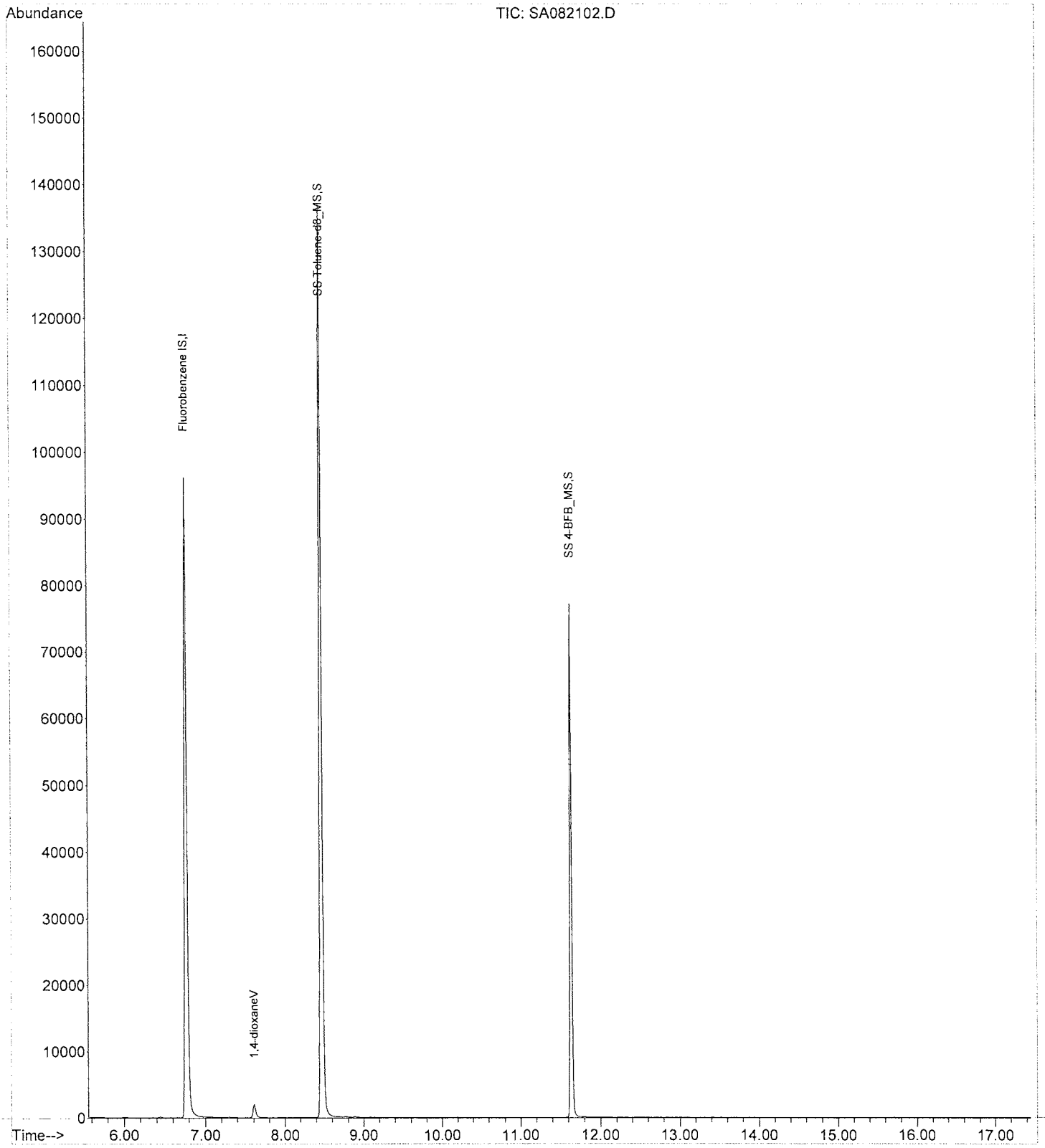
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	181533	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	182190	9.67	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.69%			
4) SS 4-BFB_MS	11.63	95	73262	10.85	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.54%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3067m	4.026	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082102.D Vial: 2
Acq On : 21 Aug 2013 12:05 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:48 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

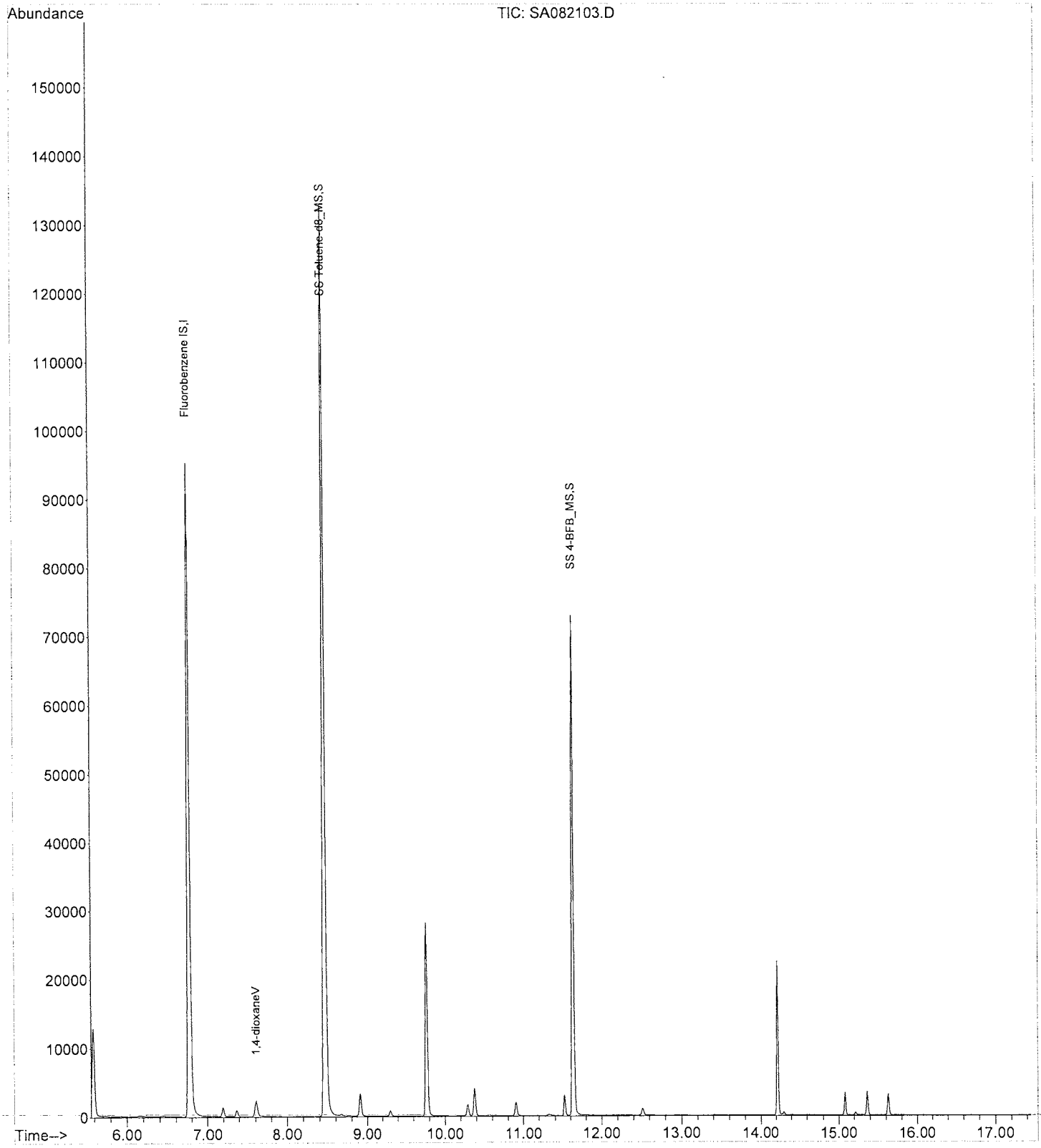
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178431	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176592	9.53	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.35%			
4) SS 4-BFB_MS	11.64	95	68955	10.39	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.93%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3230m	4.313	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082103.D Vial: 3
Acq On : 21 Aug 2013 12:54 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:33:58 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

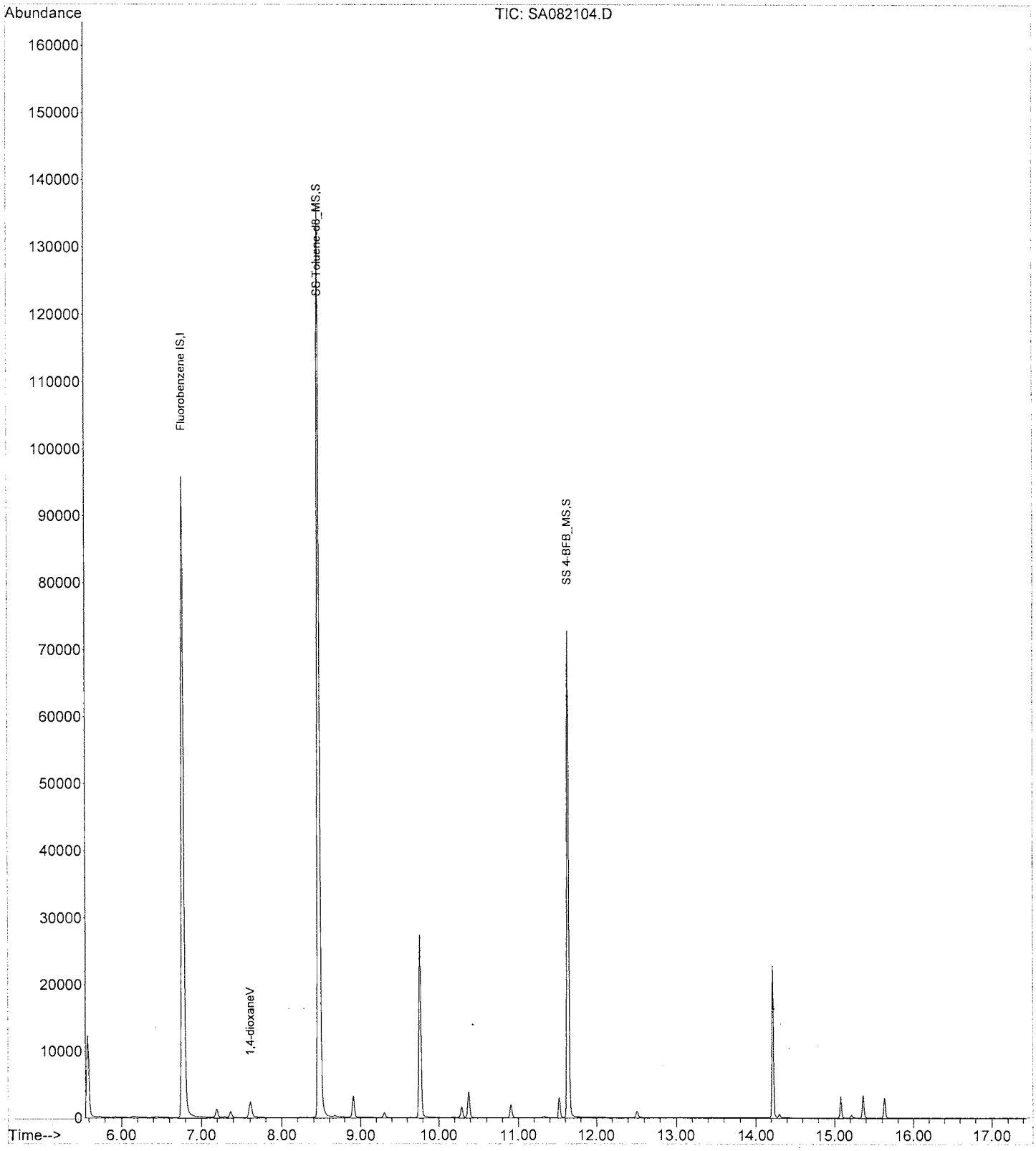
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	178225	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178660	9.66	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.57%			
4) SS 4-BFB_MS	11.64	95	69038	10.42	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3330m	4.452	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082104.D Vial: 4
Acq On : 21 Aug 2013 1:42 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 15:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:34:17 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

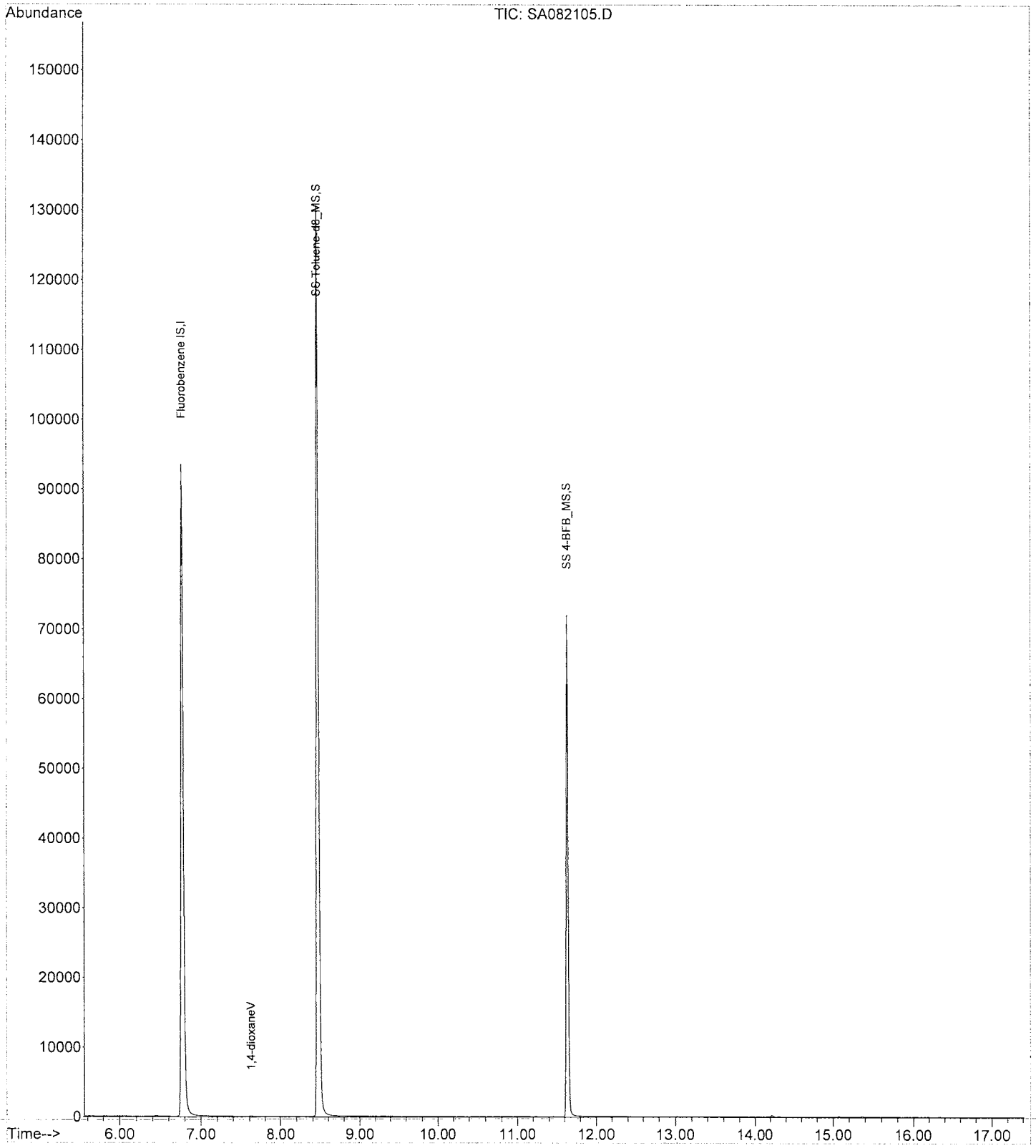
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176829	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	175780	9.58	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.77%			
4) SS 4-BFB_MS	11.64	95	68723	10.45	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.52%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	91m	0.123	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082105.D Vial: 5
Acq On : 21 Aug 2013 2:31 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082112.D Vial: 12
Acq On : 21 Aug 2013 8:14 pm Operator: VG
Sample : 123705.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:36 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	157923	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	158564	9.67	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.73%			
4) SS 4-BFB_MS	11.63	95	63992	10.90	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.98%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.55	88	8	0.012	ug/L #	58

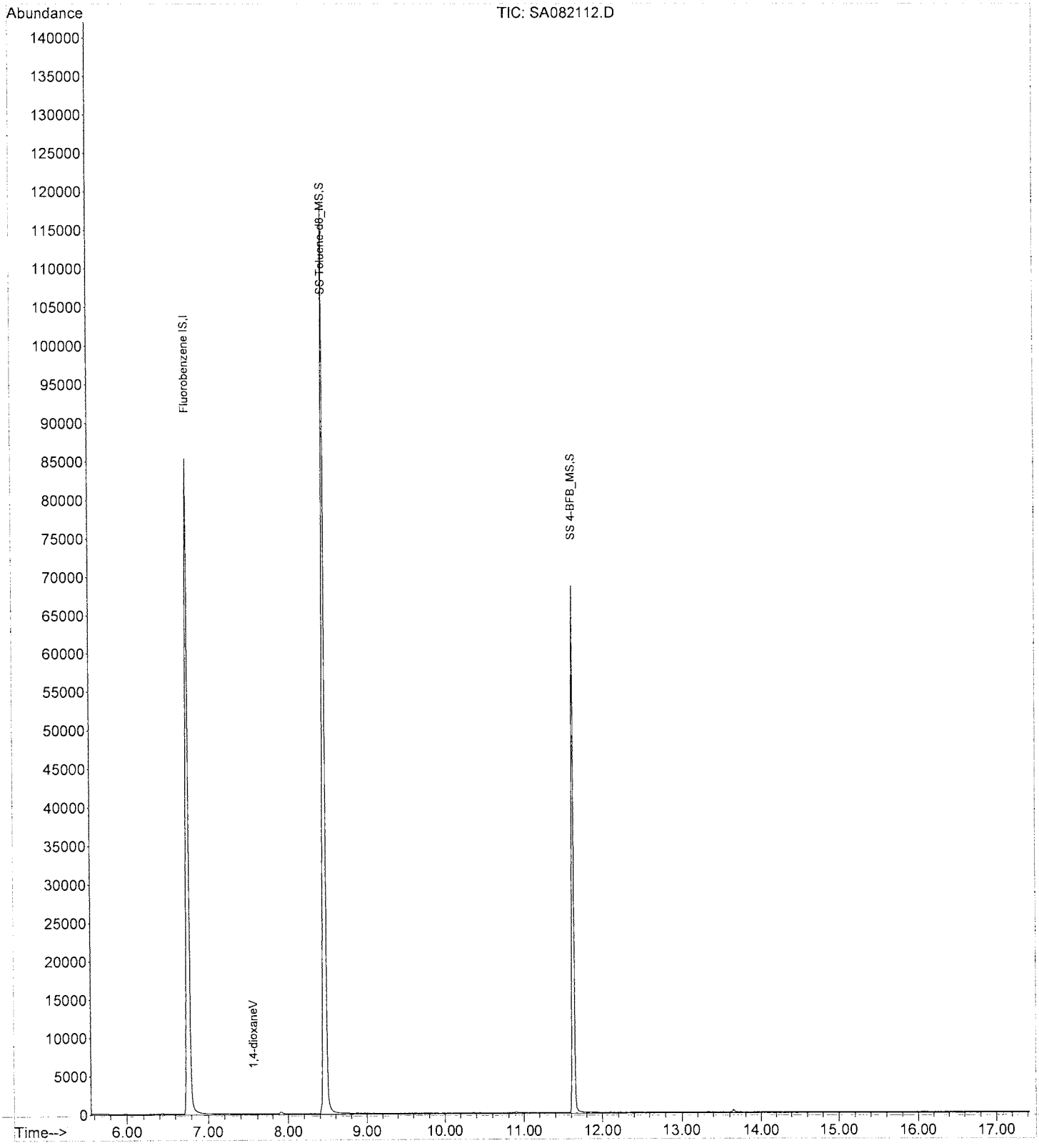
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082112.D 2SIM0510.M Thu Aug 22 09:01:36 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082112.D Vial: 12
Acq On : 21 Aug 2013 8:14 pm Operator: VG
Sample : 123705.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082113.D Vial: 13
Acq On : 21 Aug 2013 9:06 pm Operator: VG
Sample : 123705.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:39 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	157712	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	160800	9.82	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.22%			
4) SS 4-BFB_MS	11.63	95	65047	11.09	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.92%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.55	88	8	0.012	ug/L #	28

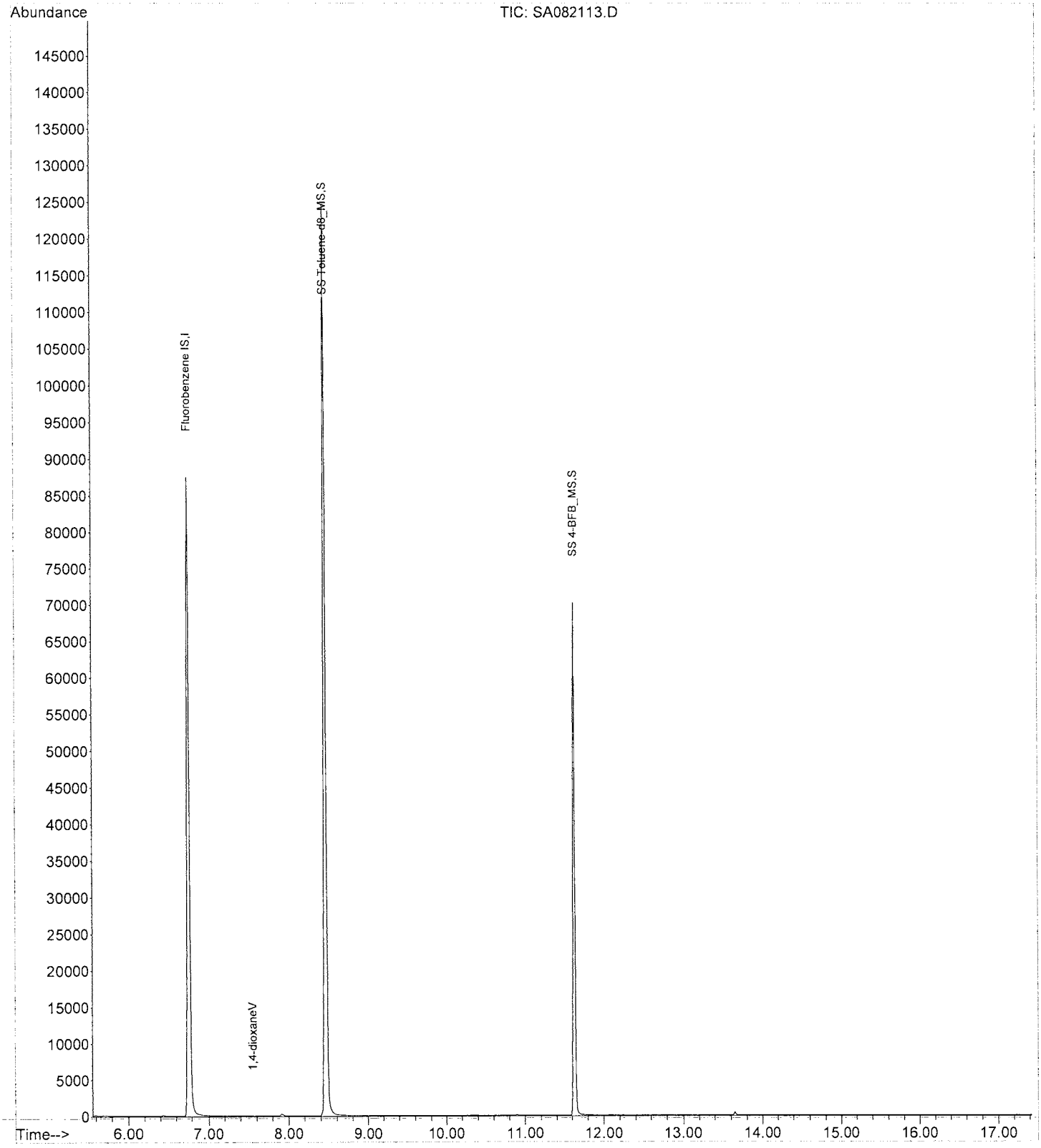
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082113.D 2SIM0510.M Thu Aug 22 09:01:39 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082113.D Vial: 13
Acq On : 21 Aug 2013 9:06 pm Operator: VG
Sample : 123705.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082114.D Vial: 14
Acq On : 21 Aug 2013 9:57 pm Operator: VG
Sample : 123705.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:42 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	158204	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	159279	9.70 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.99%		
4) SS 4-BFB_MS	11.63	95	64079	10.89 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.93%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	277	0.417 ug/L	98

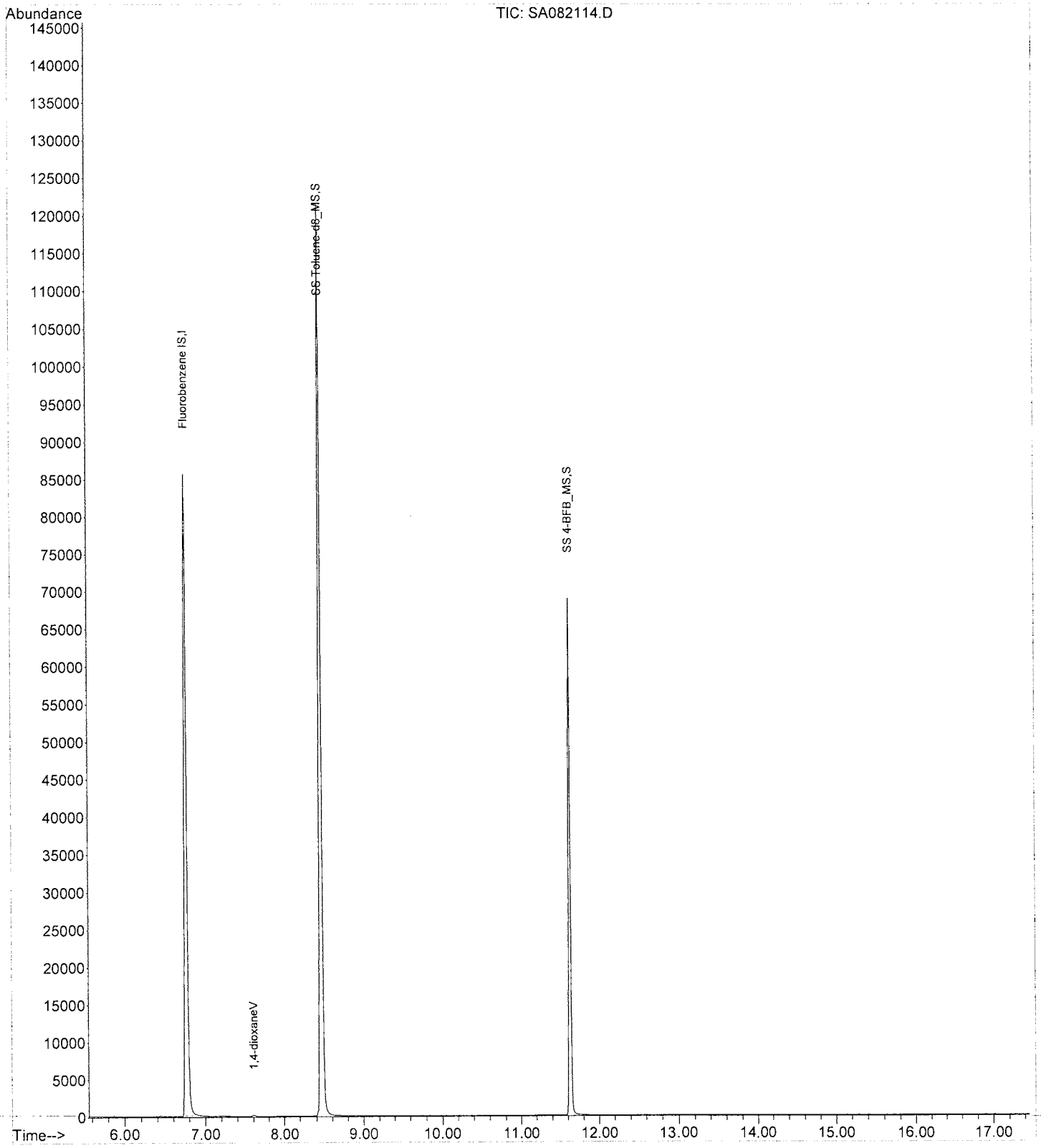
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082114.D Vial: 14
Acq On : 21 Aug 2013 9:57 pm Operator: VG
Sample : 123705.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082115.D Vial: 15
Acq On : 21 Aug 2013 10:48 pm Operator: VG
Sample : 123705.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	157532	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	158829	9.71	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.13%			
4) SS 4-BFB_MS	11.63	95	64715	11.05	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.48%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	297	0.449	ug/L	97

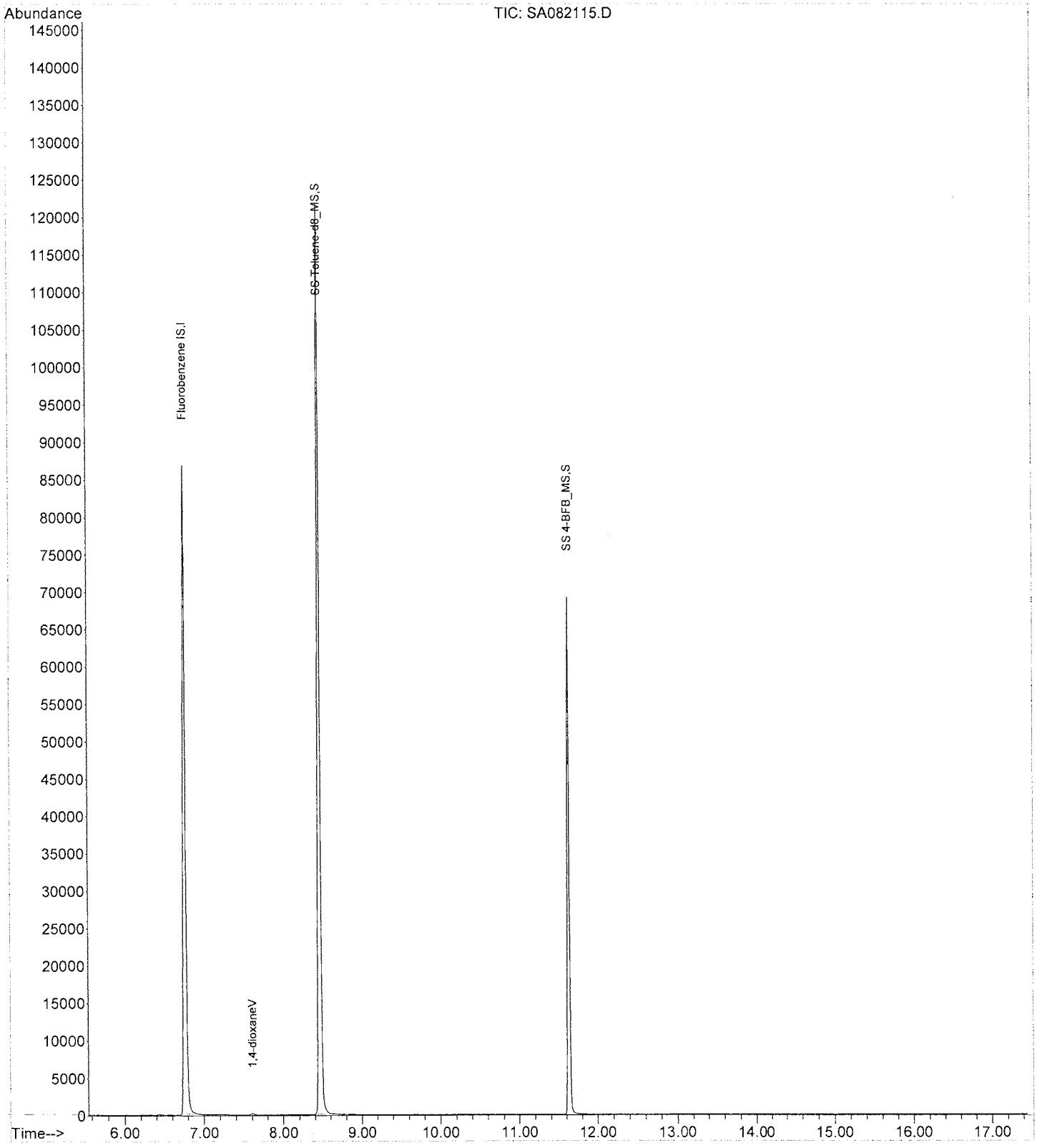
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082115.D Vial: 15
Acq On : 21 Aug 2013 10:48 pm Operator: VG
Sample : 123705.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082116.D Vial: 16
Acq On : 21 Aug 2013 11:38 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:34:40 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

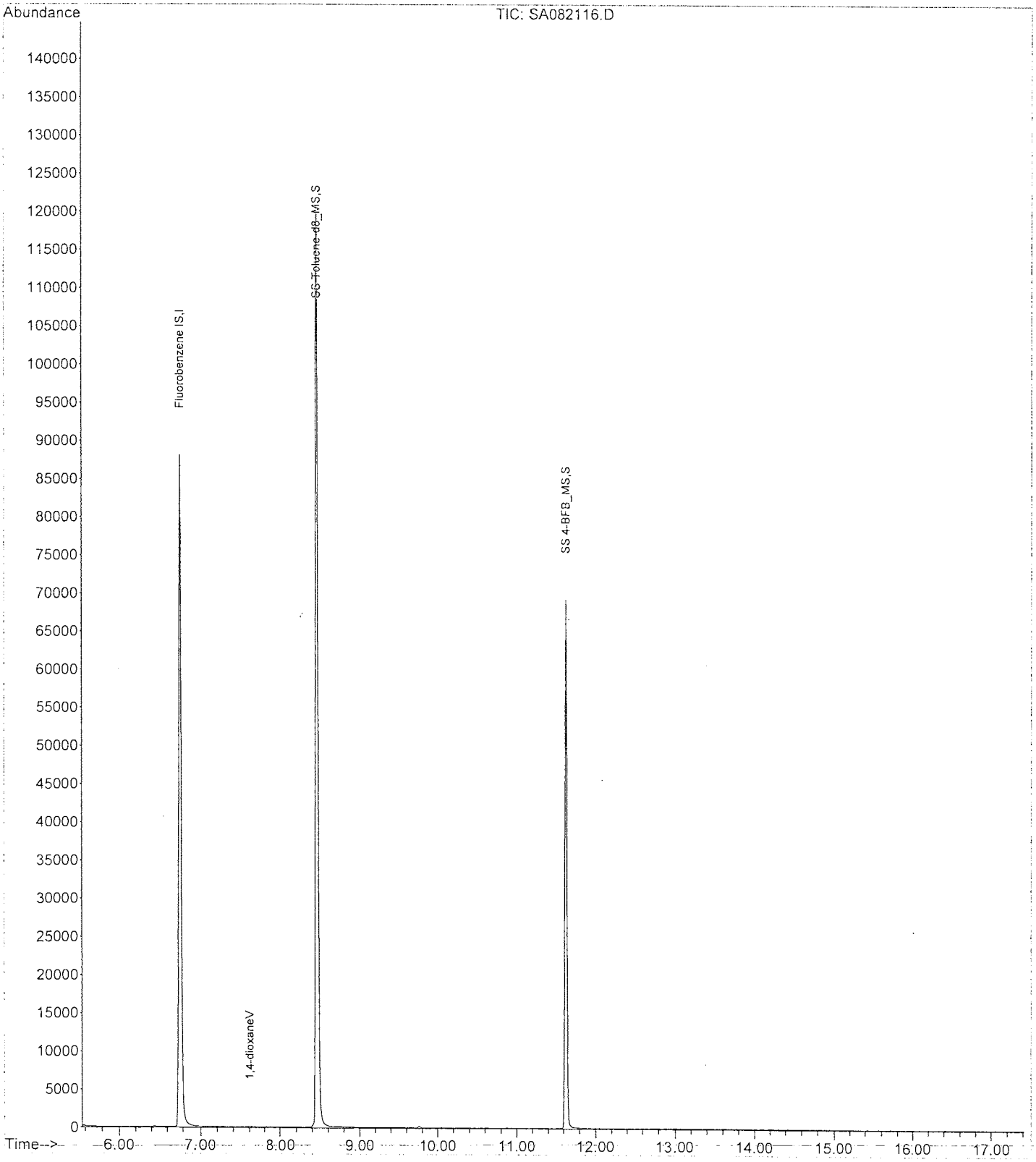
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.766	96	159681	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.462	98	167099	10.081	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.810%			
4) SS 4-BFB_MS	11.627	95	65454	11.024	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.240%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.609	88	207	0.309	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082116.D 2SIM0510.M Tue Sep 03 11:38:34 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082116.D Vial: 16
Acq On : 21 Aug 2013 11:38 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



IS/SS ID= V-4079
Standard ID= V-4040
LCS/LCSD and/or MS/MSD Standard ID= V-4041

Analyst: VS

Date: 8/21/17

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SA08101	PBW		✓		x1	VOC MSI			
2	2	STD5					VOC SIM	5IM050		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank				↓	VOC			
6	6	123649.06 MS				x10	VOC			
7	7	MSD				↓ x10	VOC			
8	8	123650.01				x5	VOC			
9	9	03				x5	VOC			
10	10	04				x10	VOC			
11	11	06				x1	VOC			
12	12	123705.01					VOC			
13	13	02					VOC			
14	14	04					VOC			
15	15	05					VOC			
16	16	STD.25					VOC			
17	17	PBW					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123705.06					VOC			
23	23	07					VOC			
24	24	08					VOC			
25	25	09					VOC			
26	26	10					VOC			
27	27	123704.06				↓	VOC			
28	28	02				x10	VOC			
29	29	03					VOC			
30	30	DMS					VOC			
31	31	DMSD		✓		↓	VOC			
							VOC			
							VOC			
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							VOC			
							VOC			

Samples removed from autosampler, order verified by_____

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2113\SA082117.D
Tune Time : 22 Aug 2013 12:29 am

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D

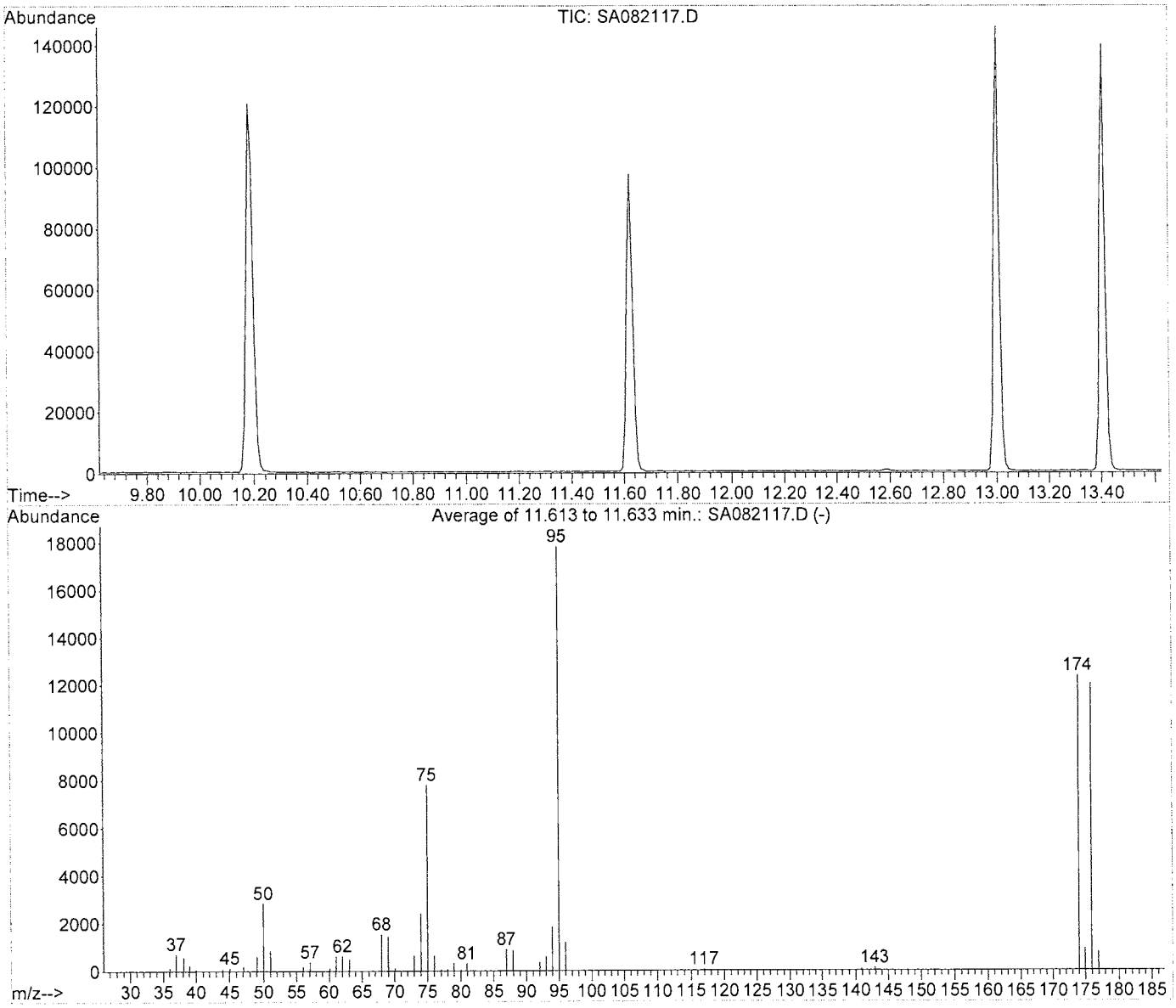
156150

File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082118.D	STD5	97	112	156150
SA082119.D	LCS5	104	112	156838
SA082120.D	LCSD5	104	113	154886
SA082121.D	BLANK	104	114	154824
SA082122.D	123705.06	102	110	168472
SA082123.D	123705.07	98	110	169276
SA082124.D	123705.08	98	112	167072
SA082125.D	123705.09	99	114	163189
SA082126.D	123705.10	103	111	162464
SA082127.D	123704.06	99	113	160988
SA082128.D	123704.02	98	113	161698
SA082129.D	123704.03	99	113	160469
SA082130.D	123704.02M	104	112	160791
SA082131.D	123704.02M	105	115	155854

t - fails 12hr time check * - fails criteria

Created: Thu Aug 22 15:28:26 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082117.D Vial: 17
Acq On : 22 Aug 2013 12:29 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.613 to 11.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	2851	PASS
75	95	30	60	43.7	7793	PASS
95	95	100	100	100.0	17826	PASS
96	95	5	9	6.7	1200	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.3	12355	PASS
175	174	5	9	7.4	916	PASS
176	174	95	101	97.3	12018	PASS
177	176	5	9	6.4	768	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	98	-0.01
2		1,4-dioxaneV	5.000	4.979	0.4	97	0.00
3	S	SS Toluene-d8_MS	10.000	9.691	3.1	94	-0.01
4	S	SS 4-BFB_MS	10.000	11.203	-12.0	111	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Fri Aug 23 12:57:40 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:25 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

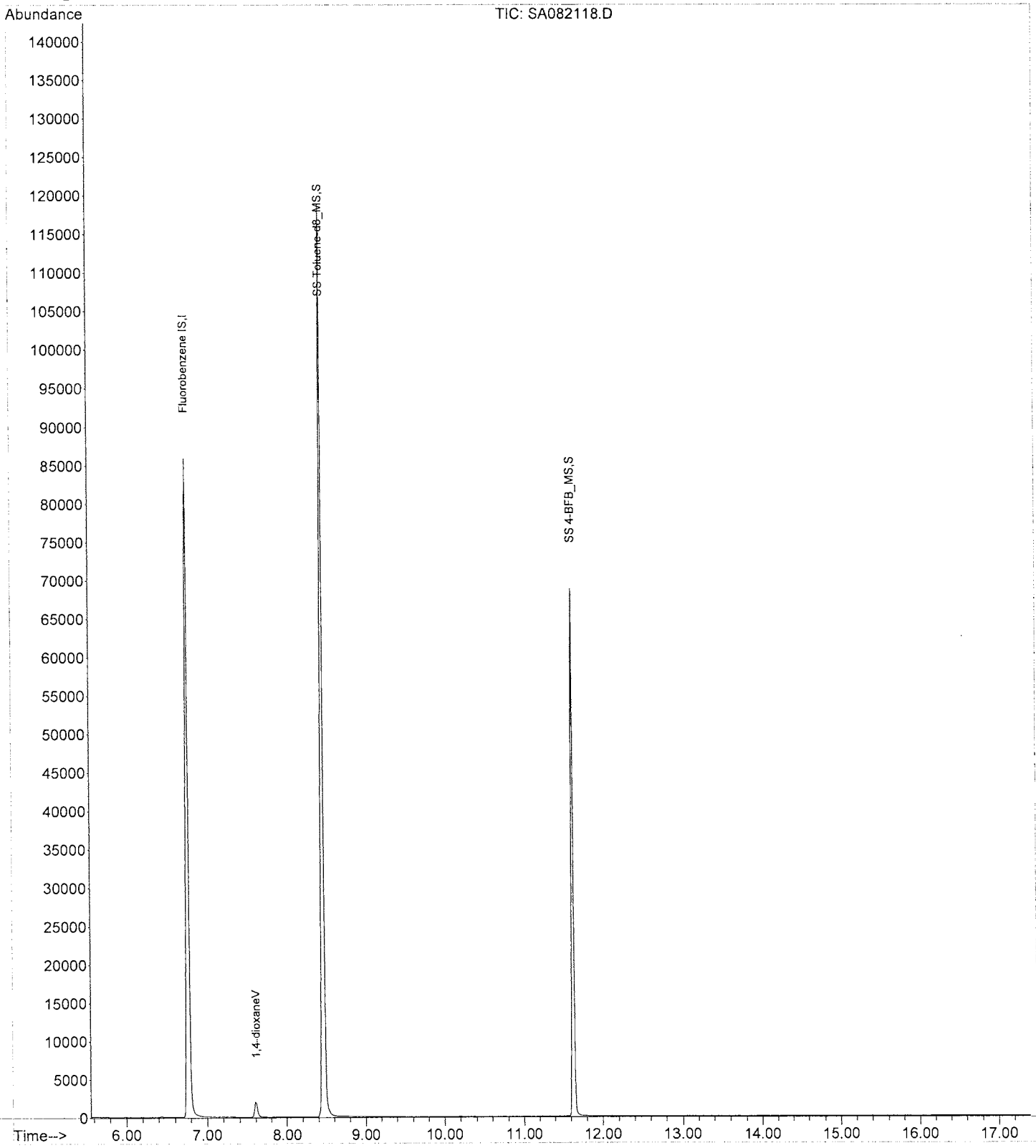
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156150	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	157083	9.69	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.91%			
4) SS 4-BFB_MS	11.63	95	65046	11.20	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.03%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3263	4.979	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082118.D Vial: 18
Acq On : 22 Aug 2013 1:20 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:33 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082119.D Vial: 19
Acq On : 22 Aug 2013 2:11 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:41 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

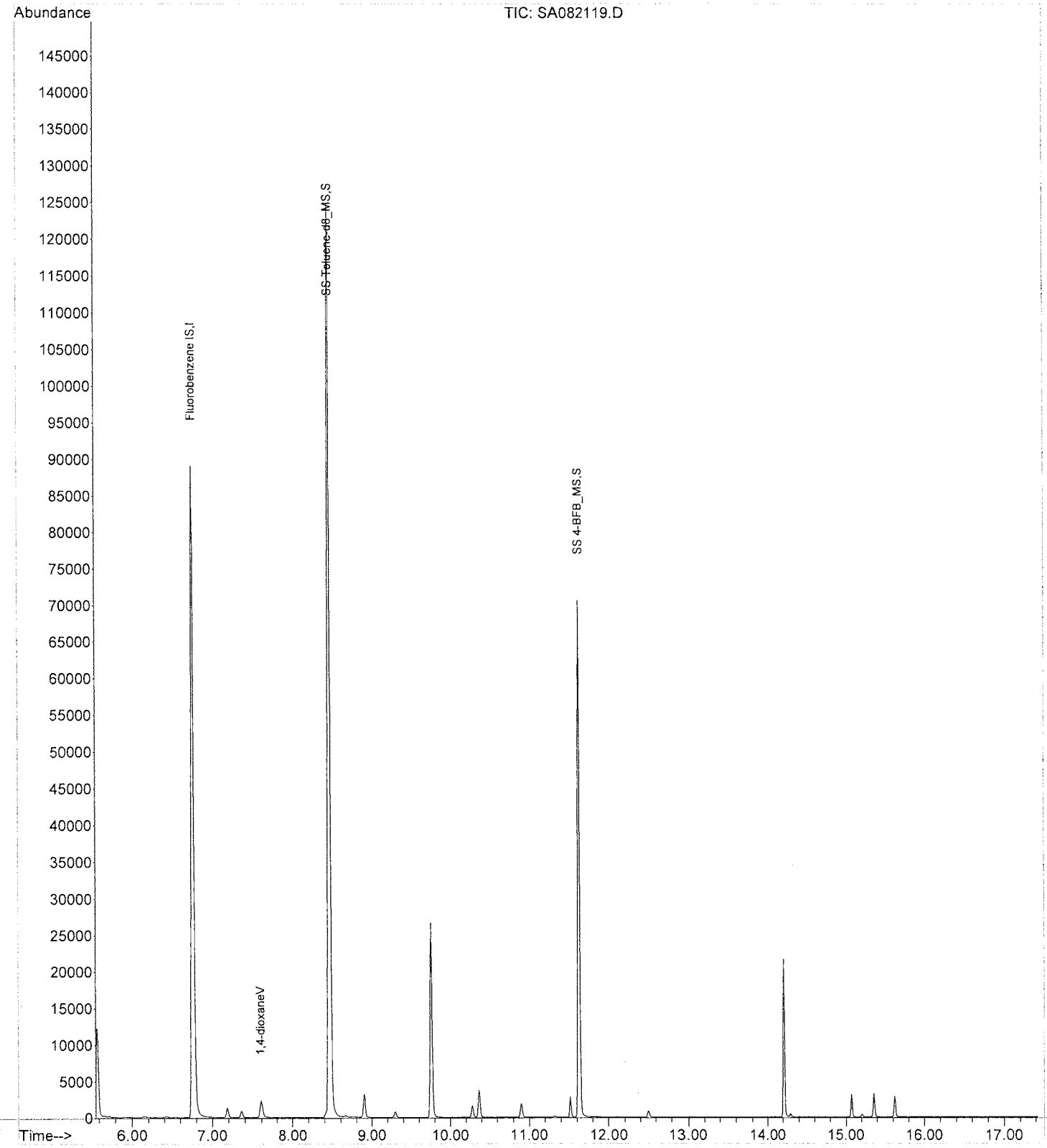
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156838	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	169130	10.39	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.89%			
4) SS 4-BFB_MS	11.63	95	65318	11.20	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.00%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3170	4.816	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082119.D Vial: 19
Acq On : 22 Aug 2013 2:11 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 7:33 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082120.D Vial: 20
Acq On : 22 Aug 2013 3:02 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:35:51 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

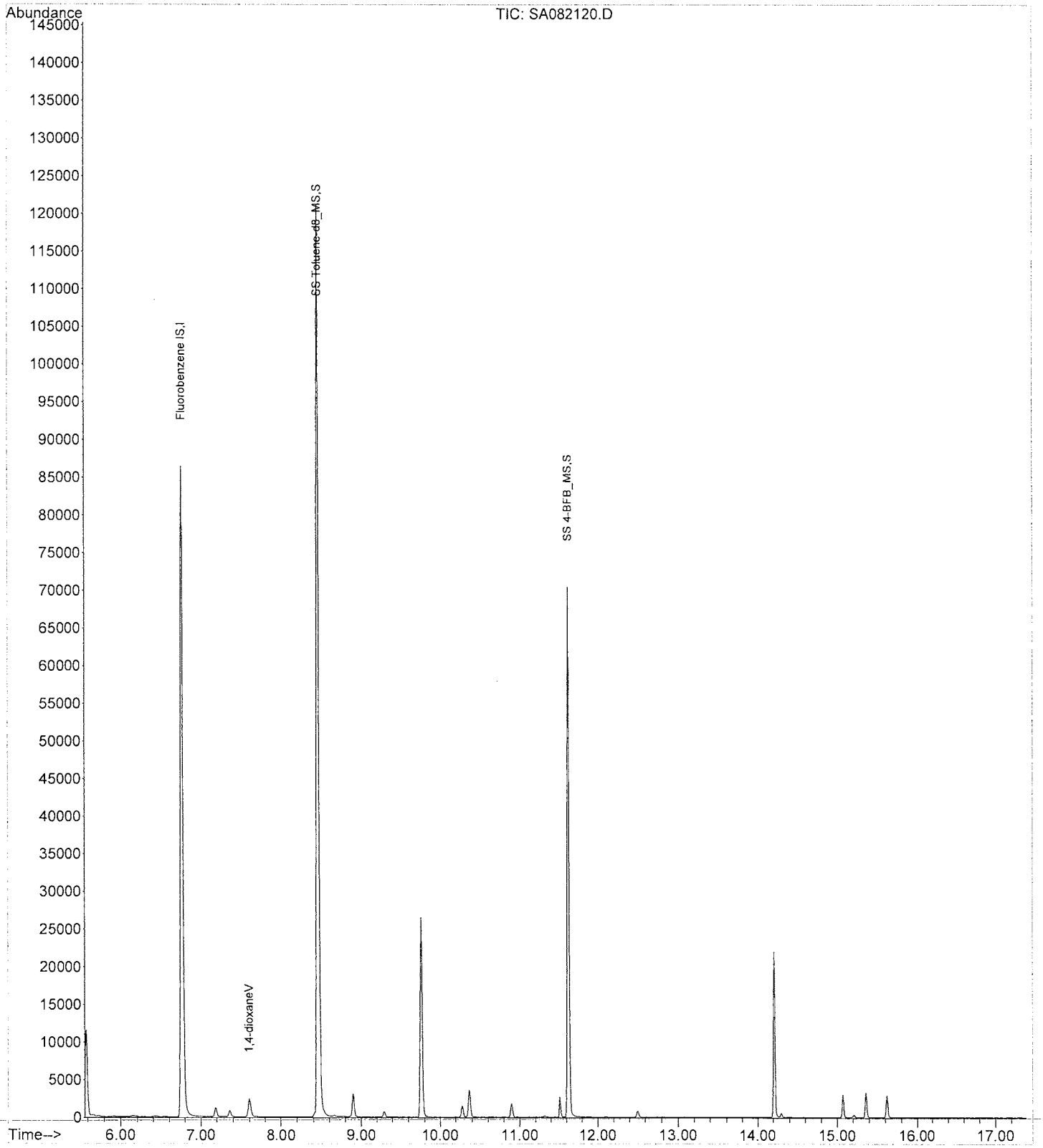
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.76	96	154886	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	166456	10.35	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	103.53%		
4) SS 4-BFB_MS			11.63	95	64860	11.26	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	112.62%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.59	88	3401m	5.232	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082120.D 2SIM0510.M Fri Aug 23 12:58:22 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082120.D Vial: 20
Acq On : 22 Aug 2013 3:02 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:26 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082121.D Vial: 21
Acq On : 22 Aug 2013 3:53 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 07:36:01 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

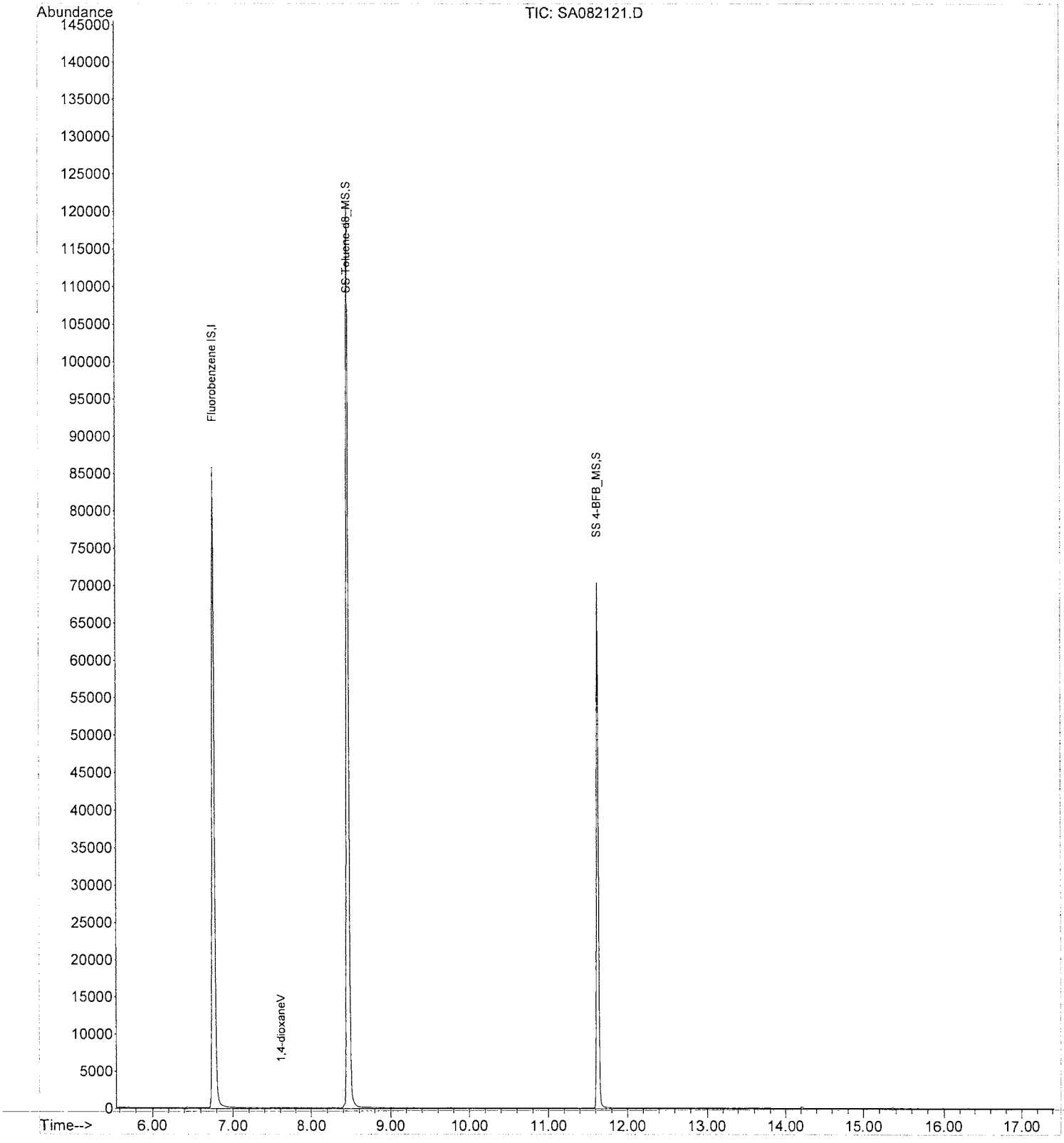
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	154824	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	166506	10.36	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.61%			
4) SS 4-BFB_MS	11.63	95	65531	11.38	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.83%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	81m	0.125	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082121.D 2SIM0510.M Fri Aug 23 12:58:35 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082121.D Vial: 21
Acq On : 22 Aug 2013 3:53 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 8:32 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082122.D Vial: 22
Acq On : 22 Aug 2013 4:43 am Operator: VG
Sample : 123705.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:48 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	168472	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178168	10.19	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.88%			
4) SS 4-BFB_MS	11.64	95	69088	11.03	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.29%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1031	~~1.458~~ 0.41	ug/L	# 52

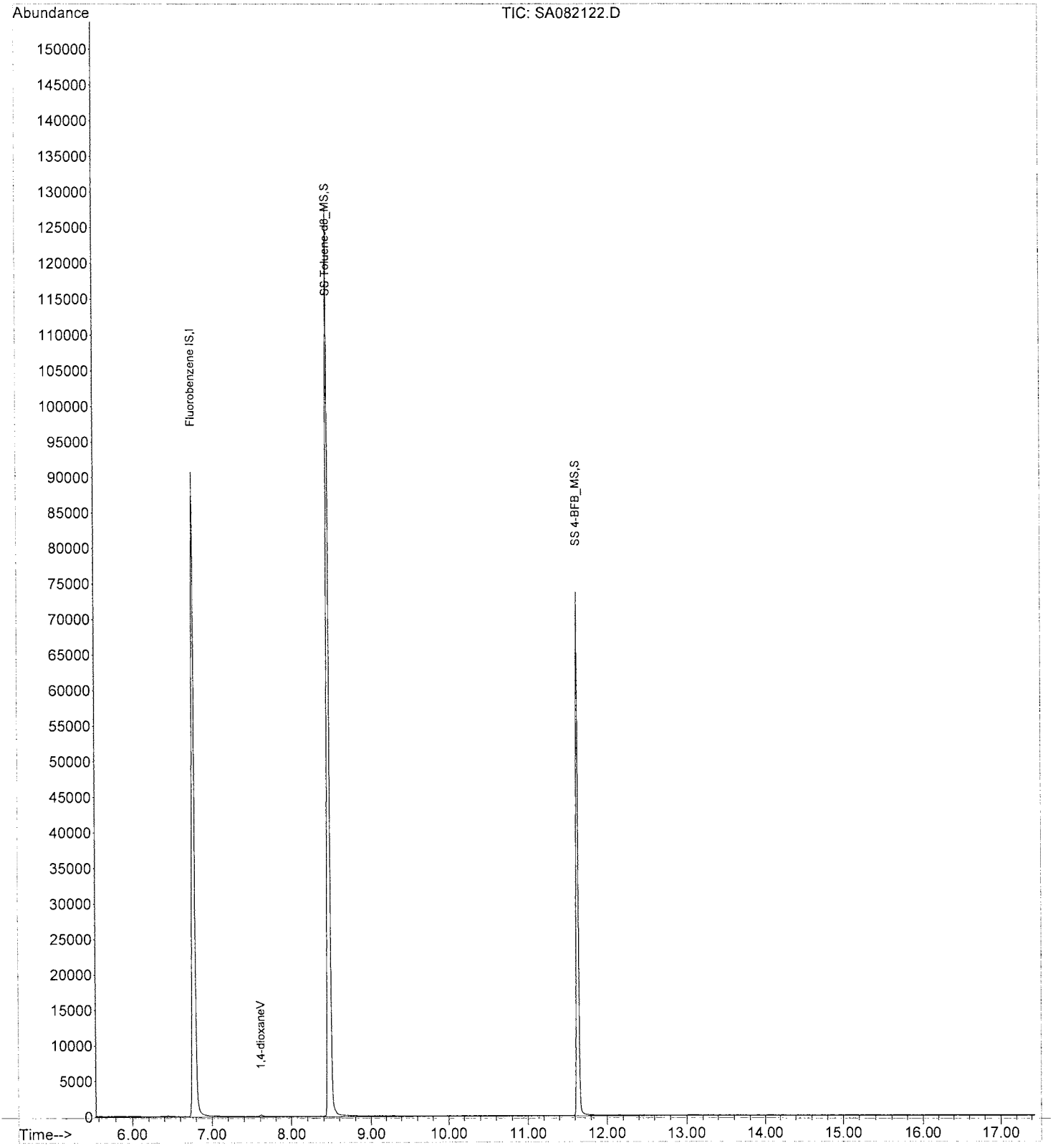
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082122.D Vial: 22
Acq On : 22 Aug 2013 4:43 am Operator: VG
Sample : 123705.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082123.D Vial: 23
Acq On : 22 Aug 2013 5:31 am Operator: VG
Sample : 123705.07 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:51 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	169276	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	171574	9.76 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.65%		
4) SS 4-BFB_MS	11.64	95	69316	11.01 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.13%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.62	88	547	0.770 ug/L #	35

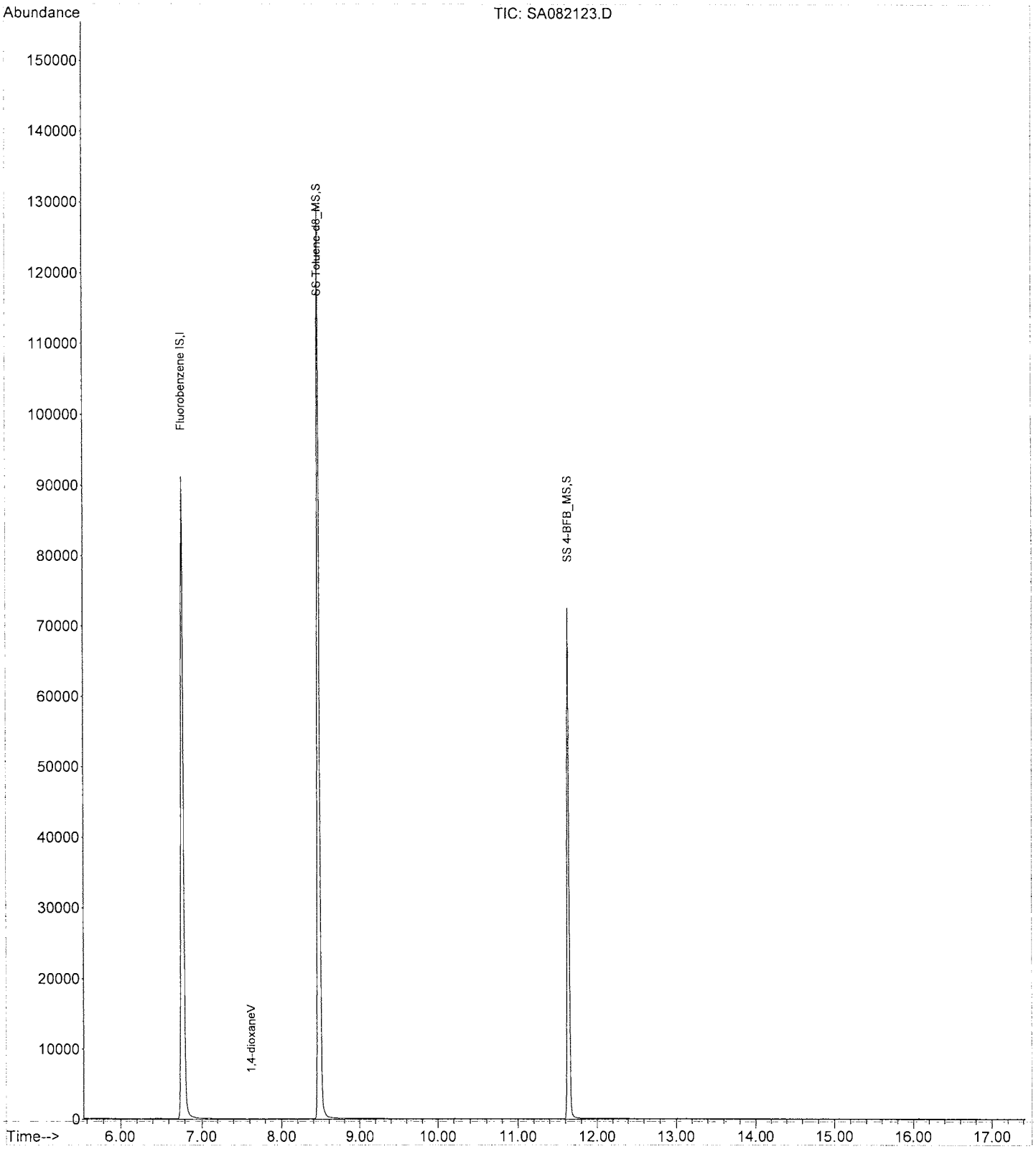
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082123.D Vial: 23
Acq On : 22 Aug 2013 5:31 am Operator: VG
Sample : 123705.07 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 8:59 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082124.D Vial: 24
Acq On : 22 Aug 2013 6:20 am Operator: VG
Sample : 123705.08 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:54 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	167072	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	169932	9.80	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.99%			
4) SS 4-BFB_MS	11.64	95	69449	11.18	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.79%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	474	0.676	ug/L #	27

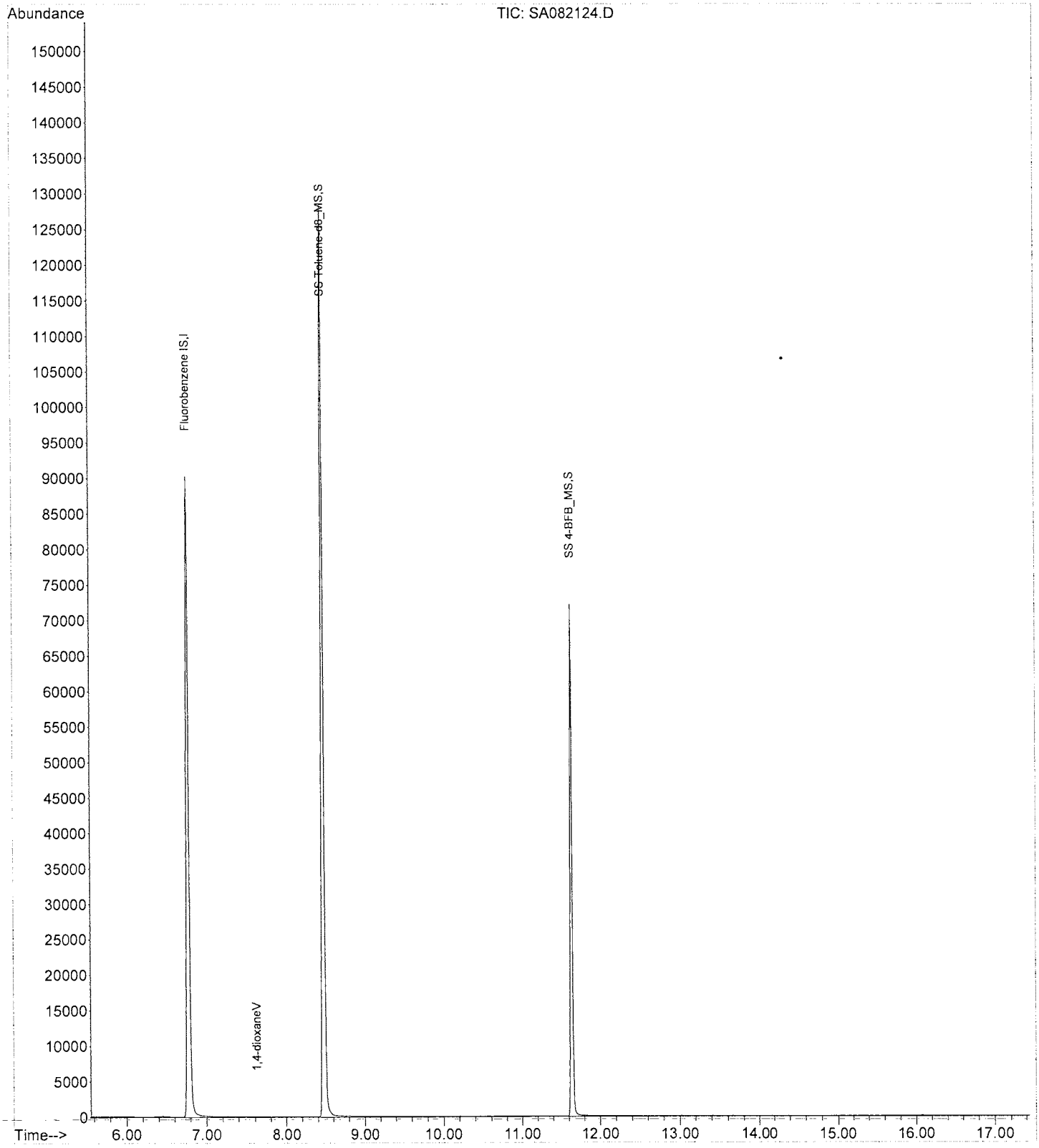
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082124.D 2SIM0510.M Thu Aug 22 09:01:54 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082124.D Vial: 24
Acq On : 22 Aug 2013 6:20 am Operator: VG
Sample : 123705.08 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 9:00 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082125.D Vial: 25
Acq On : 22 Aug 2013 7:09 am Operator: VG
Sample : 123705.09 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:01:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163189	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167406	9.88	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.83%			
4) SS 4-BFB_MS	11.64	95	69232	11.41	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.10%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	634	0.926	ug/L #	40

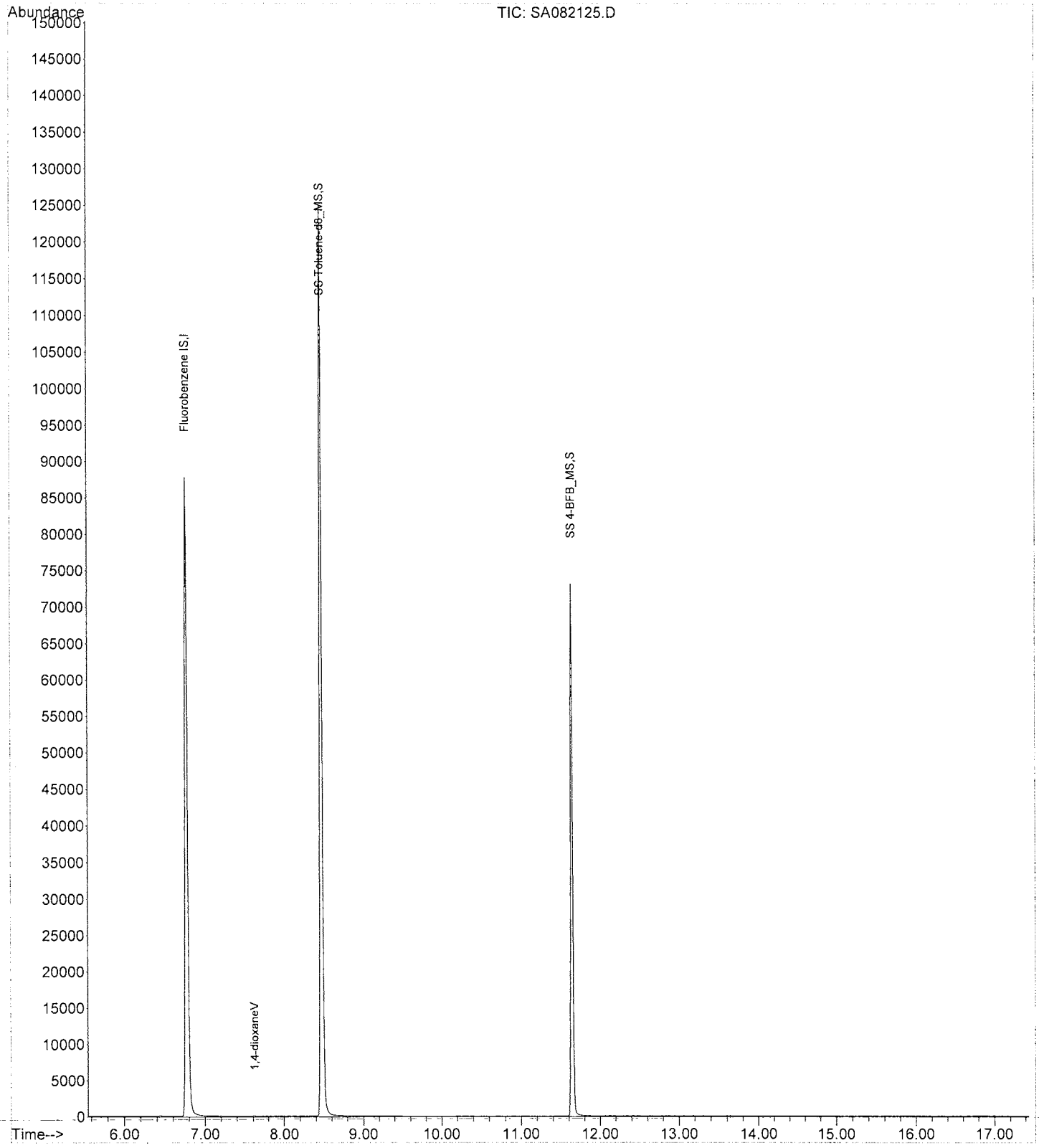
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082125.D Vial: 25
Acq On : 22 Aug 2013 7:09 am Operator: VG
Sample : 123705.09 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 9:00 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082126.D Vial: 26
Acq On : 22 Aug 2013 7:58 am Operator: VG
Sample : 123705.10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 09:02:00 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	162464	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	174140	10.33	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.26%			
4) SS 4-BFB_MS	11.64	95	67065	11.10	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.02%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	444	0.651	ug/L	# 22

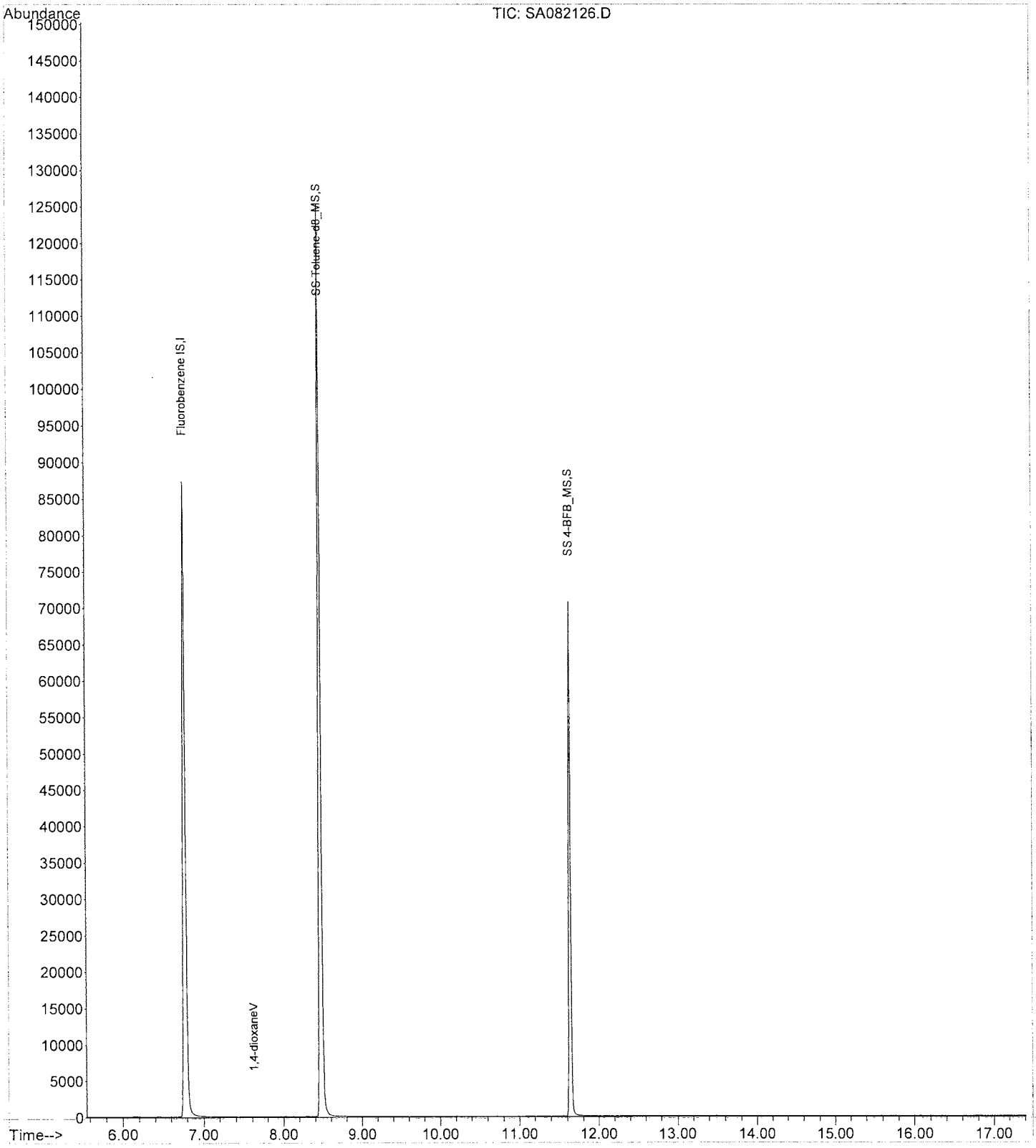
8/22/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082126.D 2SIM0510.M Thu Aug 22 09:02:00 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2113\SA082126.D Vial: 26
Acq On : 22 Aug 2013 7:58 am Operator: VG
Sample : 123705.10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 22 9:00 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

Professional laboratory & drilling services

123705
Metals by 200.8
Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15	1:10	Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets pos	Sample
63	123649.01 MS	1:1 Sc mets pos	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets pos	Sample
74	123649.06 MS	1:1 Sc mets pos	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets pos	Sample
90	123739.13 MS	1:1 Sc mets pos	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 Mspre		Sample
104	123529.10 Mspre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

Last ~~good~~ passing QC set.
autosampler malfunctions
Not Reporting any As, Mn

auto sampler malfuction

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 M$post	Sample
120	123529.20 M$post	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 M$post	Sample
135	123739.03 M$post	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 M$post	Sample
150	123739.19 M$post	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74162

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.19		2001

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		85.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 92.208
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 96.089
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 101.260
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		83.547
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.389
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.603
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 99.877
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Wednesday, August 21, 2013 14:32:52	Sample Date/Time:	Wednesday, August 21, 2013 17:20:00
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1	Ag	107	0.11138	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1	Ag	109	0.119796	ug/L		< 1
Al	27	-0.26208	ug/L		< 50	Al	27	-0.096673	ug/L		< 50
As	75	-0.071958	ug/L		< 1	As	75	-0.107506	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1	Ba	137	0.009978	ug/L		< 1
Ba	138	0.000189	ug/L		< 1	Ba	138	0.013973	ug/L		< 1
Be	9	-0.011526	ug/L		< 1	Be	9	-0.013222	ug/L		< 1
Ca	44	1.285014	ug/L		< 50	Ca	44	2.131988	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1	Cd	111	-0.044567	ug/L		< 1
Cd	114	0.007666	ug/L		< 1	Cd	114	-0.038087	ug/L		< 1
Co	59	-0.060007	ug/L		< 1	Co	59	-0.0905	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1	Cr	52	0.017578	ug/L		< 1
Cu	63	0.021397	ug/L		< 1	Cu	63	0.021827	ug/L		< 1
Cu	65	0.029362	ug/L		< 1	Cu	65	0.027876	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50	Fe	54	-4.694121	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50	Fe	56	0.7008	ug/L		< 50
Fe	57	0.03486	ug/L		< 50	Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	98.551		Ge	72		ug/L	92.793	
Hg	200	0.000835	ug/L		< 0.2	Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2	Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	99.821		Ho	165		ug/L	95.506	
In	115		ug/L	97.623		In	115		ug/L	93.097	
K	39	-1.029991	ug/L		< 50	K	39	-2.584433	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50	Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50	Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5	Mn	55	-0.0295	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000	Na	23	-0.140785	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1	Ni	60	0.004618	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1	Ni	62	-0.035148	ug/L		< 1
P	31	-0.685617	ug/L		< 50	P	31	-4.843357	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1	Pb	208	-0.004769	ug/L		< 1
Sb	121	0.072129	ug/L		< 1	Sb	121	-0.001531	ug/L		< 1
Sb	123	0.074335	ug/L		< 1	Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	98.465		Sc	45		ug/L	92.391	
Se	82	0.043643	ug/L		< 1	Se	82	-0.033791	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1	Tl	205	-0.068961	ug/L		< 1
V	51	0.220601	ug/L		< 1	V	51	0.347795	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5	Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 18:51:22
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1
Ag	109	0.382578	ug/L		< 1
Al	27	-0.04987	ug/L		< 50
As	75	-0.029484	ug/L		< 1
Ba	137	0.00932	ug/L		< 1
Ba	138	0.013228	ug/L		< 1
Be	9	-0.010209	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1
Co	59	-0.098027	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1
Cu	63	0.069722	ug/L		< 1
Cu	65	0.073293	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50
Ge	72		ug/L	82.019	
Hg	200	0.002538	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2
Ho	165		ug/L	95.831	
In	115		ug/L	88.586	
K	39	-5.938476	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1
P	31	0.144733	ug/L		< 50
Pb	208	0.003305	ug/L		< 1
Sb	121	0.546547	ug/L		< 1
Sb	123	0.557478	ug/L		< 1
Sc	45		ug/L	83.518	
Se	82	-0.069326	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1
V	51	-0.169861	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 20:22:45
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.409088	ug/L		< 1
Ag	109	0.462557	ug/L		< 1
Al	27	-0.058166	ug/L		< 50
As	75	0.021676	ug/L		< 1
Ba	137	0.012484	ug/L		< 1
Ba	138	0.01333	ug/L		< 1
Be	9	-0.001978	ug/L		< 1
Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.07032	ug/L		< 1
Co	59	-0.099707	ug/L		< 1
Cr	52	-0.090933	ug/L		< 1
Cu	63	0.082017	ug/L		< 1
Cu	65	0.073695	ug/L		< 1
Fe	54	-6.674499	ug/L		< 50
Fe	56	-55.093425	ug/L		< 50
Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	83.541	
Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	97.845	
In	115		ug/L	89.505	
K	39	-6.379123	ug/L		< 50
Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.022123	ug/L		< 5
Na	23	0.056546	ug/L		< 5000
Ni	60	0.008771	ug/L		< 1
Ni	62	-0.024023	ug/L		< 1
P	31	-2.824856	ug/L		< 50
Pb	208	0.008953	ug/L		< 1
Sb	121	0.723441	ug/L		< 1
Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	82.676	
Se	82	0.060139	ug/L		< 1
Tl	205	-0.045467	ug/L		< 1
V	51	-0.214544	ug/L		< 1
Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 21:54:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.153846	ug/L		< 1
Ag	109	0.15035	ug/L		< 1
Al	27	0.013772	ug/L		< 50
As	75	0.37065	ug/L		< 1
Ba	137	0.01947	ug/L		< 1
Ba	138	0.021745	ug/L		< 1
Be	9	0.004878	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1
Co	59	-0.10566	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1
Cu	63	0.163582	ug/L		< 1
Cu	65	0.161789	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50
Fe	57	2.66129	ug/L		< 50
Ge	72		ug/L	85.734	
Hg	200	0.007564	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2
Ho	165		ug/L	96.63	
In	115		ug/L	90.015	
K	39	-3.247278	ug/L		< 50
Mg	24	0.269698	ug/L		< 50
Mg	25	0.317386	ug/L		< 50
Mn	55	0.018114	ug/L		< 5
Na	23	4.750616	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1
P	31	-0.93812	ug/L		< 50
Pb	208	0.033931	ug/L		< 1
Sb	121	0.653921	ug/L		< 1
Sb	123	0.671316	ug/L		< 1
Sc	45		ug/L	85.08	
Se	82	0.575163	ug/L		< 1
Tl	205	0.003967	ug/L		< 1
V	51	-0.280011	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 23:25:34
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.155097	ug/L		< 1
Ag	109	0.156398	ug/L		< 1
Al	27	0.049873	ug/L		< 50
As	75	0.319848	ug/L		< 1
Ba	137	0.01958	ug/L		< 1
Ba	138	0.021384	ug/L		< 1
Be	9	0.004036	ug/L		< 1
Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.063347	ug/L		< 1
Co	59	-0.109626	ug/L		< 1
Cr	52	-0.075727	ug/L		< 1
Cu	63	0.09756	ug/L		< 1
Cu	65	0.094357	ug/L		< 1
Fe	54	-2.050464	ug/L		< 50
Fe	56	-4.061431	ug/L		< 50
Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	84.343	
Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	95.521	
In	115		ug/L	89.464	
K	39	-3.193172	ug/L		< 50
Mg	24	0.229747	ug/L		< 50
Mg	25	0.143982	ug/L		< 50
Mn	55	-0.007129	ug/L		< 5
Na	23	4.091156	ug/L		< 5000
Ni	60	0.014038	ug/L		< 1
Ni	62	-0.037908	ug/L		< 1
P	31	-3.357474	ug/L		< 50
Pb	208	0.029733	ug/L		< 1
Sb	121	1.653256	ug/L		< 1
Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.39	
Se	82	0.458721	ug/L		< 1
Tl	205	-0.01207	ug/L		< 1
V	51	-0.30454	ug/L		< 1
Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 00:57:05
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.152331	ug/L		< 1
Ag	109	0.15027	ug/L		< 1
Al	27	-0.03779	ug/L		< 50
As	75	0.057719	ug/L		< 1
Ba	137	0.010942	ug/L		< 1
Ba	138	0.015616	ug/L		< 1
Be	9	-0.011321	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1
Co	59	-0.115011	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1
Cu	63	0.036833	ug/L		< 1
Cu	65	0.037452	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50
Fe	57	1.44184	ug/L		< 50
Ge	72		ug/L	82.371	
Hg	200	0.001505	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2
Ho	165		ug/L	98.75	
In	115		ug/L	90.548	
K	39	-3.35505	ug/L		< 50
Mg	24	0.204655	ug/L		< 50
Mg	25	0.12711	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5
Na	23	2.807046	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1
P	31	-0.22554	ug/L		< 50
Pb	208	0.002268	ug/L		< 1
Sb	121	0.174891	ug/L		< 1
Sb	123	0.17576	ug/L		< 1
Sc	45		ug/L	81.683	
Se	82	0.112483	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1
V	51	-0.328191	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 02:28:35
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.288914	ug/L		< 1
Ag	109	1.28419	ug/L		< 1
Al	27	0.044205	ug/L		< 50
As	75	0.225436	ug/L		< 1
Ba	137	0.018145	ug/L		< 1
Ba	138	0.017597	ug/L		< 1
Be	9	-0.003792	ug/L		< 1
Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.062216	ug/L		< 1
Co	59	-0.110973	ug/L		< 1
Cr	52	-0.064696	ug/L		< 1
Cu	63	0.072073	ug/L		< 1
Cu	65	0.06893	ug/L		< 1
Fe	54	-3.680317	ug/L		< 50
Fe	56	-47.09427	ug/L		< 50
Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	80.61	
Hg	200	0.005209	ug/L		< 0.2
Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	97.019	
In	115		ug/L	88.977	
K	39	-3.434466	ug/L		< 50
Mg	24	0.148344	ug/L		< 50
Mg	25	0.037963	ug/L		< 50
Mn	55	0.008374	ug/L		< 5
Na	23	5.300602	ug/L		< 5000
Ni	60	0.012988	ug/L		< 1
Ni	62	-0.005112	ug/L		< 1
P	31	-2.730091	ug/L		< 50
Pb	208	0.018434	ug/L		< 1
Sb	121	1.521021	ug/L		< 1
Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	80.611	
Se	82	0.174458	ug/L		< 1
Tl	205	-0.053724	ug/L		< 1
V	51	-0.309052	ug/L		< 1
Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 04:00:09
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.109538	ug/L		< 1
Ag	109	0.107885	ug/L		< 1
Al	27	-0.008883	ug/L		< 50
As	75	0.127157	ug/L		< 1
Ba	137	0.016023	ug/L		< 1
Ba	138	0.016167	ug/L		< 1
Be	9	-0.007956	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1
Co	59	-0.114875	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1
Cu	63	0.032424	ug/L		< 1
Cu	65	0.030497	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50
Ge	72		ug/L	80.444	
Hg	200	0.001923	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2
Ho	165		ug/L	95.511	
In	115		ug/L	88.955	
K	39	-3.001431	ug/L		< 50
Mg	24	0.309671	ug/L		< 50
Mg	25	0.298606	ug/L		< 50
Mn	55	0.023224	ug/L		< 5
Na	23	7.000406	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1
P	31	-0.44829	ug/L		< 50
Pb	208	0.001211	ug/L		< 1
Sb	121	0.079278	ug/L		< 1
Sb	123	0.083749	ug/L		< 1
Sc	45		ug/L	81.009	
Se	82	0.129524	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1
V	51	-0.509723	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 05:31:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.005663	ug/L		< 1
Ag	109	0.010628	ug/L		< 1
Al	27	-0.502926	ug/L		< 50
As	75	1.129123	ug/L		< 1
Ba	137	-0.010148	ug/L		< 1
Ba	138	-0.008275	ug/L		< 1
Be	9	-0.015683	ug/L		< 1
Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.039959	ug/L		< 1
Co	59	0.012542	ug/L		< 1
Cr	52	-0.491944	ug/L		< 1
Cu	63	-0.001465	ug/L		< 1
Cu	65	-0.006339	ug/L		< 1
Fe	54	284.471578	ug/L		< 50
Fe	56	-129.55362	ug/L		< 50
Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	129.949	
Hg	200	-0.003001	ug/L		< 0.2
Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	141.908	
In	115		ug/L	125.817	
K	39	-31.826232	ug/L		< 50
Mg	24	-0.136734	ug/L		< 50
Mg	25	-0.19183	ug/L		< 50
Mn	55	0.061396	ug/L		< 5
Na	23	1.090327	ug/L		< 5000
Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.076872	ug/L		< 1
P	31	26.141474	ug/L		< 50
Pb	208	-0.007794	ug/L		< 1
Sb	121	0.002988	ug/L		< 1
Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	141.513	
Se	82	-0.152989	ug/L		< 1
Tl	205	-0.081941	ug/L		< 1
V	51	-2.241279	ug/L		< 1
Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 07:03:30
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1
Al	27	-0.524824	ug/L		< 50
As	75	1.098666	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1
Be	9	-0.016149	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1
Co	59	-0.033016	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1
Fe	54	318.31098	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50
Ge	72		ug/L	135.534	
Hg	200	-0.00305	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2
Ho	165		ug/L	135.791	
In	115		ug/L	133.042	
K	39	-33.575308	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50
Mn	55	0.05205	ug/L		< 5
Na	23	0.12898	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1
P	31	28.414772	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1
Sc	45		ug/L	135.399	
Se	82	-0.162972	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1
V	51	-2.302445	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 08:35:16
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524517	ug/L		< 50
As	75	1.054567	ug/L		< 1
Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.009079	ug/L		< 1
Be	9	-0.014621	ug/L		< 1
Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.090179	ug/L		< 1
Co	59	-0.078269	ug/L		< 1
Cr	52	-0.47418	ug/L		< 1
Cu	63	0.0013	ug/L		< 1
Cu	65	-0.003215	ug/L		< 1
Fe	54	319.135316	ug/L		< 50
Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.134	
Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	140.956	
In	115		ug/L	144.07	
K	39	-32.805094	ug/L		< 50
Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.229129	ug/L		< 50
Mn	55	0.048782	ug/L		< 5
Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.061371	ug/L		< 1
P	31	27.860573	ug/L		< 50
Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	130.84	
Se	82	-0.404338	ug/L		< 1
Tl	205	-0.093371	ug/L		< 1
V	51	-2.29718	ug/L		< 1
Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 09:33:49
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.095298	ug/L		< 1
Ag	109	0.094355	ug/L		< 1
Al	27	0.075903	ug/L		< 50
As	75	-0.03098	ug/L		< 1
Ba	137	0.017392	ug/L		< 1
Ba	138	0.020186	ug/L		< 1
Be	9	-0.010611	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1
Co	59	-0.137349	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1
Cu	63	0.039414	ug/L		< 1
Cu	65	0.031906	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50
Ge	72		ug/L	89.373	
Hg	200	0.000491	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2
Ho	165		ug/L	98.89	
In	115		ug/L	92.57	
K	39	-4.157267	ug/L		< 50
Mg	24	0.574241	ug/L		< 50
Mg	25	0.636205	ug/L		< 50
Mn	55	0.021759	ug/L		< 5
Na	23	2.780659	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1
P	31	-0.173755	ug/L		< 50
Pb	208	0.001538	ug/L		< 1
Sb	121	0.078009	ug/L		< 1
Sb	123	0.087634	ug/L		< 1
Sc	45		ug/L	85.875	
Se	82	0.043633	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1
V	51	-0.596453	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 11:24:19
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.090915	ug/L		< 1
Ag	109	0.09819	ug/L		< 1
Al	27	0.047217	ug/L		< 50
As	75	-0.030436	ug/L		< 1
Ba	137	0.016176	ug/L		< 1
Ba	138	0.020659	ug/L		< 1
Be	9	-0.011288	ug/L		< 1
Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.082977	ug/L		< 1
Co	59	-0.147596	ug/L		< 1
Cr	52	-0.06319	ug/L		< 1
Cu	63	0.038297	ug/L		< 1
Cu	65	0.034062	ug/L		< 1
Fe	54	-1.456751	ug/L		< 50
Fe	56	-0.025537	ug/L		< 50
Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	86.417	
Hg	200	0.00115	ug/L		< 0.2
Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	100.905	
In	115		ug/L	92.826	
K	39	-0.314828	ug/L		< 50
Mg	24	0.573024	ug/L		< 50
Mg	25	0.393241	ug/L		< 50
Mn	55	0.02926	ug/L		< 5
Na	23	4.257669	ug/L		< 5000
Ni	60	0.00676	ug/L		< 1
Ni	62	-0.003664	ug/L		< 1
P	31	0.06278	ug/L		< 50
Pb	208	0.000639	ug/L		< 1
Sb	121	0.071262	ug/L		< 1
Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.343	
Se	82	0.023146	ug/L		< 1
Tl	205	-0.073176	ug/L		< 1
V	51	-0.366388	ug/L		< 1
Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 13:43:03
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1
Ag	109	0.640631	ug/L		< 1
Al	27	0.09732	ug/L		< 50
As	75	0.128392	ug/L		< 1
Ba	137	0.023246	ug/L		< 1
Ba	138	0.021737	ug/L		< 1
Be	9	-0.002378	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1
Co	59	-0.14108	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1
Cu	63	0.072079	ug/L		< 1
Cu	65	0.082805	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50
Fe	57	2.699095	ug/L		< 50
Ge	72		ug/L	79.059	
Hg	200	0.003667	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2
Ho	165		ug/L	92.372	
In	115		ug/L	86.481	
K	39	-0.06939	ug/L		< 50
Mg	24	0.658856	ug/L		< 50
Mg	25	0.529086	ug/L		< 50
Mn	55	0.027991	ug/L		< 5
Na	23	4.666609	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1
P	31	0.073182	ug/L		< 50
Pb	208	0.015682	ug/L		< 1
Sb	121	1.267409	ug/L		< 1
Sb	123	1.287874	ug/L		< 1
Sc	45		ug/L	- 76.201	
Se	82	0.150628	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1
V	51	-0.220549	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 14:35:14
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.222791	ug/L		< 1
Ag	109	0.224883	ug/L		< 1
Al	27	0.500197	ug/L		< 50
As	75	-0.06713	ug/L		< 1
Ba	137	0.017237	ug/L		< 1
Ba	138	0.021829	ug/L		< 1
Be	9	-0.010387	ug/L		< 1
Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.085964	ug/L		< 1
Co	59	-0.146151	ug/L		< 1
Cr	52	-0.045782	ug/L		< 1
Cu	63	0.041847	ug/L		< 1
Cu	65	0.035843	ug/L		< 1
Fe	54	4.533522	ug/L		< 50
Fe	56	-35.057302	ug/L		< 50
Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.142	
Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	93.451	
In	115		ug/L	87.75	
K	39	0.959589	ug/L		< 50
Mg	24	0.990964	ug/L		< 50
Mg	25	0.888904	ug/L		< 50
Mn	55	0.014971	ug/L		< 5
Na	23	5.109504	ug/L		< 5000
Ni	60	0.00981	ug/L		< 1
Ni	62	-0.00789	ug/L		< 1
P	31	0.284032	ug/L		< 50
Pb	208	0.007423	ug/L		< 1
Sb	121	0.253468	ug/L		< 1
Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.542	
Se	82	0.06488	ug/L		< 1
Tl	205	-0.051882	ug/L		< 1
V	51	-0.227237	ug/L		< 1
Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929		1
Hg	202	1.040778	ug/L	104.078		1
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662		1000
Mg	24	103.781446	ug/L	103.368		100
Mg	25	101.910134	ug/L	101.504		100
Mn	55	101.057709	ug/L	100.455		100
Na	23	100.277066	ug/L	98.795		100
Ni	60	102.584982	ug/L	102.176		100
Ni	62	102.933276	ug/L	102.523		100
Pb	208	99.694126	ug/L	98.903		100
Sb	121	100.398697	ug/L	99.999		100
Sb	123	100.622444	ug/L	100.222		100
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043		100
Tl	205	99.216104	ug/L	99.515		100
V	51	101.059419	ug/L	100.059		100
Zn	64	107.272953	ug/L	106.846		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593		1
Hg	202	1.040768	ug/L	104.077		1
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252		1000
Mg	24	98.319154	ug/L	97.927		100
Mg	25	96.031291	ug/L	95.649		100
Mn	55	98.959577	ug/L	98.369		100
Na	23	96.168791	ug/L	94.748		100
Ni	60	100.55402	ug/L	100.153		100
Ni	62	102.661248	ug/L	102.252		100
Pb	208	98.323004	ug/L	97.543		100
Sb	121	99.99654	ug/L	99.598		100
Sb	123	99.453167	ug/L	99.057		100
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583		100
Tl	205	97.452476	ug/L	97.746		100
V	51	101.271779	ug/L	100.269		100
Zn	64	109.836832	ug/L	109.399		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4		10000
Mg	24	9880.11872	ug/L	98.801		10000
Mg	25	9759.45121	ug/L	97.595		10000
Na	23	9883.02508	ug/L	98.83		10000
P	31	9713.82327	ug/L	97.138		10000
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896		10000
Mg	24	8956.63881	ug/L	89.566		10000
Mg	25	8963.69564	ug/L	89.637		10000
Na	23	9024.94466	ug/L	90.249		10000
P	31	9411.4984	ug/L	94.115		10000
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 14:52:24	Sample Date/Time:	Wednesday, August 21, 2013 17:33:02
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1	Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.528061	ug/L	107.807		31.1	Ag	109	33.401584	ug/L	107.401		31.1
Al	27	175.79957	ug/L	108.518		162	Al	27	170.207121	ug/L	105.066		162
As	75	44.004738	ug/L	108.654		40.5	As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.819208	ug/L	101.974		26.3	Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.677018	ug/L	108.212		53.3	Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.935119	ug/L	101.525		48.2	Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.027357	ug/L	101.717		48.2	Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.704507	ug/L	108.555		24.6	Co	59	26.02674	ug/L	105.8		24.6
Cr	52	12.125672	ug/L	105.441		11.5	Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.535617	ug/L	105.484		28	Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.324751	ug/L	104.731		28	Cu	65	29.265666	ug/L	104.52		28
Fe	54	49.158941	ug/L	110.718		44.4	Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	48.011563	ug/L	108.134		44.4	Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		96.994		Ge	72		ug/L		90.92	
Hg	200	1.073622	ug/L	107.362		1	Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.06403	ug/L	106.403		1	Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		98.773		Ho	165		ug/L		95.67	
In	115		ug/L		97.432		In	115		ug/L		91.805	
Mn	55	156.696069	ug/L	105.876		148	Mn	55	152.821227	ug/L	103.258		148
Ni	60	37.877474	ug/L	104.924		36.1	Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.770046	ug/L	104.626		36.1	Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.241661	ug/L	102.366		137	Pb	208	140.83278	ug/L	102.798		137
Sb	121	77.130222	ug/L	120.894		63.8	Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	78.14608	ug/L	122.486		63.8	Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		97.791		Sc	45		ug/L		89.874	
Se	82	170.349456	ug/L	105.154		162	Se	82	163.258818	ug/L	100.777		162
Tl	205	29.143939	ug/L	104.834		27.8	Tl	205	28.779001	ug/L	103.522		27.8
V	51	146.163334	ug/L	102.932		142	V	51	145.251347	ug/L	102.29		142
Zn	64	136.871927	ug/L	108.629		126	Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922		1
Hg	202	1.082203	ug/L	108.22		1
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119		1000
Mg	24	99.317125	ug/L	98.921		100
Mg	25	97.694613	ug/L	97.305		100
Mn	55	97.083947	ug/L	96.505		100
Na	23	97.926622	ug/L	96.479		100
Ni	60	99.931756	ug/L	99.534		100
Ni	62	101.122532	ug/L	100.72		100
Pb	208	104.220792	ug/L	103.394		100
Sb	121	103.564096	ug/L	103.151		100
Sb	123	105.370593	ug/L	104.951		100
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647		100
Tl	205	102.083183	ug/L	102.39		100
V	51	99.948537	ug/L	98.959		100
Zn	64	111.868594	ug/L	111.423		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489		1
Hg	202	1.036762	ug/L	103.676		1
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214		1000
Mg	24	97.583939	ug/L	97.195		100
Mg	25	96.371483	ug/L	95.988		100
Mn	55	96.222644	ug/L	95.649		100
Na	23	94.867561	ug/L	93.466		100
Ni	60	99.787099	ug/L	99.39		100
Ni	62	100.716791	ug/L	100.316		100
Pb	208	101.118943	ug/L	100.316		100
Sb	121	101.603508	ug/L	101.199		100
Sb	123	101.96027	ug/L	101.554		100
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683		100
Tl	205	99.868488	ug/L	100.169		100
V	51	99.064993	ug/L	98.084		100
Zn	64	110.300389	ug/L	109.861		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339		10000
Mg	24	9107.17615	ug/L	91.072		10000
Mg	25	9113.08412	ug/L	91.131		10000
Na	23	9142.69945	ug/L	91.427		10000
P	31	9237.4397	ug/L	92.374		10000
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23		10000
Mg	24	9115.36461	ug/L	91.154		10000
Mg	25	9076.8622	ug/L	90.769		10000
Na	23	9186.42576	ug/L	91.864		10000
P	31	9240.66309	ug/L	92.407		10000
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 19:04:23	Sample Date/Time:	Wednesday, August 21, 2013 20:35:46
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1	Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.243043	ug/L	103.675		31.1	Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.877405	ug/L	104.863		162	Al	27	169.56866	ug/L	104.672		162
As	75	43.649422	ug/L	107.776		40.5	As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.539059	ug/L	100.909		26.3	Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.537574	ug/L	109.827		53.3	Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.686438	ug/L	98.935		48.2	Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	48.50097	ug/L	100.624		48.2	Cd	114	47.957987	ug/L	99.498		48.2
Co	59	24.967966	ug/L	101.496		24.6	Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.295588	ug/L	98.223		11.5	Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	28.509718	ug/L	101.82		28	Cu	63	29.183414	ug/L	104.226		28
Cu	65	28.505075	ug/L	101.804		28	Cu	65	29.283253	ug/L	104.583		28
Fe	54	36.488238	ug/L	82.181		44.4	Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	37.63998	ug/L	84.775		44.4	Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		83.794		Ge	72		ug/L		82.957	
Hg	200	1.079841	ug/L	107.984		1	Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.075676	ug/L	107.568		1	Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		94.617		Ho	165		ug/L		96.96	
In	115		ug/L		89.825		In	115		ug/L		90.311	
Mn	55	146.325811	ug/L	98.869		148	Mn	55	149.386866	ug/L	100.937		148
Ni	60	35.354291	ug/L	97.934		36.1	Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	35.812885	ug/L	99.205		36.1	Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	142.748232	ug/L	104.196		137	Pb	208	139.712907	ug/L	101.98		137
Sb	121	78.438027	ug/L	122.944		63.8	Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	79.381895	ug/L	124.423		63.8	Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		85.798		Sc	45		ug/L		83.441	
Se	82	168.196615	ug/L	103.825		162	Se	82	170.175299	ug/L	105.046		162
Tl	205	29.939774	ug/L	107.697		27.8	Tl	205	28.521962	ug/L	102.597		27.8
V	51	138.465296	ug/L	97.511		142	V	51	142.922273	ug/L	100.649		142
Zn	64	132.284935	ug/L	104.988		126	Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID: QC Std 5
ıple Date/Time: Thursday, August 22, 2013 01:10:06
ıple Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 02:41:37
Sample Description: CV - Trace Metals 2

ıcentration Results				QC Std	Int Std	True
ılyte	Mass	Conc.	Units	% R	% R	Value
	107	32.085084	ug/L	103.167		31.1
	109	32.283397	ug/L	103.805		31.1
	27	176.628105	ug/L	109.03		162
	75	43.800976	ug/L	108.151		40.5
	137	26.837539	ug/L	102.044		26.3
	9	61.614851	ug/L	115.6		53.3
	111	47.430034	ug/L	98.403		48.2
	114	48.746097	ug/L	101.133		48.2
	59	26.280712	ug/L	106.832		24.6
	52	12.015753	ug/L	104.485		11.5
	63	29.462402	ug/L	105.223		28
	65	29.259493	ug/L	104.498		28
	54	44.033776	ug/L	99.175		44.4
	57	43.567683	ug/L	98.125		44.4
	72		ug/L		82.707	
	200	1.057705	ug/L	105.77		1
	202	1.069887	ug/L	106.989		1
	165		ug/L		96.744	
	115		ug/L		90.217	
	55	156.302321	ug/L	105.61		148
	60	37.297646	ug/L	103.318		36.1
	62	37.56515	ug/L	104.059		36.1
	208	141.740015	ug/L	103.46		137
	121	78.450993	ug/L	122.964		63.8
	123	78.806471	ug/L	123.521		63.8
	45		ug/L		79.964	
	82	169.290777	ug/L	104.5		162
	205	28.847121	ug/L	103.767		27.8
	51	147.903791	ug/L	104.158		142
	64	138.748402	ug/L	110.118		126

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.40122	ug/L	104.184		31.1
Ag	109	32.681402	ug/L	105.085		31.1
Al	27	175.971114	ug/L	108.624		162
As	75	43.433784	ug/L	107.244		40.5
Ba	137	26.985416	ug/L	102.606		26.3
Be	9	61.712462	ug/L	115.783		53.3
Cd	111	47.380861	ug/L	98.301		48.2
Cd	114	48.585557	ug/L	100.8		48.2
Co	59	26.170913	ug/L	106.386		24.6
Cr	52	11.920527	ug/L	103.657		11.5
Cu	63	28.915989	ug/L	103.271		28
Cu	65	29.162714	ug/L	104.153		28
Fe	54	44.487941	ug/L	100.198		44.4
Fe	57	42.710078	ug/L	96.194		44.4
Ge	72		ug/L		81.216	
Hg	200	1.026397	ug/L	102.64		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		96.797	
In	115		ug/L		88.977	
Mn	55	155.899113	ug/L	105.337		148
Ni	60	36.847545	ug/L	102.071		36.1
Ni	62	36.750603	ug/L	101.802		36.1
Pb	208	140.681713	ug/L	102.687		137
Sb	121	78.164808	ug/L	122.515		63.8
Sb	123	79.249706	ug/L	124.216		63.8
Sc	45		ug/L		81.057	
Se	82	169.545511	ug/L	104.658		162
Tl	205	28.82577	ug/L	103.69		27.8
V	51	146.069039	ug/L	102.866		142
Zn	64	136.170963	ug/L	108.072		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905		1
Hg	202	1.034894	ug/L	103.489		1
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

mple ID: QC Std 5
mple Date/Time: Thursday, August 22, 2013 04:13:10
mple Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 05:44:51
Sample Description: CV - Trace Metals 2

ncentration Results				QC Std	Int Std	True
alyte	Mass	Conc.	Units	% R	% R	Value
]	107	31.910435	ug/L	102.606		31.1
]	109	32.451735	ug/L	104.346		31.1
	27	176.978661	ug/L	109.246		162
s	75	43.693437	ug/L	107.885		40.5
a	137	26.960732	ug/L	102.512		26.3
e	9	63.399941	ug/L	118.949		53.3
d	111	48.186725	ug/L	99.972		48.2
d	114	48.776891	ug/L	101.197		48.2
o	59	26.421149	ug/L	107.403		24.6
r	52	11.97374	ug/L	104.119		11.5
u	63	29.055703	ug/L	103.77		28
u	65	29.197034	ug/L	104.275		28
e	54	43.74309	ug/L	98.52		44.4
e	57	41.962856	ug/L	94.511		44.4
e	72		ug/L		80.709	
g	200	1.069262	ug/L	106.926		1
g	202	1.056357	ug/L	105.636		1
o	165		ug/L		95.83	
n	115		ug/L		88.442	
In	55	156.943489	ug/L	106.043		148
Ni	60	37.048042	ug/L	102.626		36.1
Ni	62	36.398976	ug/L	100.828		36.1
b	208	141.718411	ug/L	103.444		137
Sb	121	78.316181	ug/L	122.753		63.8
Sb	123	78.931664	ug/L	123.717		63.8
Sc	45		ug/L		80.835	
Se	82	171.023934	ug/L	105.57		162
Tl	205	28.771042	ug/L	103.493		27.8
V	51	146.166037	ug/L	102.934		142
Zn	64	138.002467	ug/L	109.526		126

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.002583	ug/L	-0.008		31.1
Ag	109	-0.001163	ug/L	-0.004		31.1
Al	27	-0.512186	ug/L	-0.316		162
As	75	1.099476	ug/L	2.715		40.5
Ba	137	-0.009982	ug/L	-0.038		26.3
Be	9	-0.016701	ug/L	-0.031		53.3
Cd	111	-0.043471	ug/L	-0.09		48.2
Cd	114	-0.050387	ug/L	-0.105		48.2
Co	59	0.008112	ug/L	0.033		24.6
Cr	52	-0.495766	ug/L	-4.311		11.5
Cu	63	-0.000159	ug/L	-0.001		28
Cu	65	-0.005692	ug/L	-0.02		28
Fe	54	291.990802	ug/L	657.637		44.4
Fe	57	-21.372424	ug/L	-48.136		44.4
Ge	72		ug/L		132.416	
Hg	200	-0.003091	ug/L	-0.309		1
Hg	202	-0.003251	ug/L	-0.325		1
Ho	165		ug/L		126.741	
In	115		ug/L		145.25	
Mn	55	0.053751	ug/L	0.036		148
Ni	60	-0.011788	ug/L	-0.033		36.1
Ni	62	-0.058488	ug/L	-0.162		36.1
Pb	208	-0.007995	ug/L	-0.006		137
Sb	121	-0.004589	ug/L	-0.007		63.8
Sb	123	-0.002685	ug/L	-0.004		63.8
Sc	45		ug/L		143.741	
Se	82	-0.047835	ug/L	-0.03		162
Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	-2.27818	ug/L	-1.604		142
Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282		1
Hg	202	-0.003181	ug/L	-0.318		1
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406		1000
Mg	24	-0.174617	ug/L	-0.174		100
Mg	25	-0.247938	ug/L	-0.247		100
Mn	55	0.05222	ug/L	0.052		100
Na	23	0.032718	ug/L	0.032		100
Ni	60	-0.011779	ug/L	-0.012		100
Ni	62	-0.061766	ug/L	-0.062		100
Pb	208	-0.011789	ug/L	-0.012		100
Sb	121	-0.014839	ug/L	-0.015		100
Sb	123	-0.014279	ug/L	-0.014		100
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152		100
Tl	205	-0.096793	ug/L	-0.097		100
V	51	-2.312245	ug/L	-2.289		100
Zn	64	-1.422791	ug/L	-1.417		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295		1
Hg	202	-0.002419	ug/L	-0.242		1
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002		1000
Mg	24	-0.166032	ug/L	-0.165		100
Mg	25	-0.22414	ug/L	-0.223		100
Mn	55	0.061606	ug/L	0.061		100
Na	23	-0.358021	ug/L	-0.353		100
Ni	60	-0.011193	ug/L	-0.011		100
Ni	62	-0.060722	ug/L	-0.06		100
Pb	208	-0.011966	ug/L	-0.012		100
Sb	121	-0.018787	ug/L	-0.019		100
Sb	123	-0.01744	ug/L	-0.017		100
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294		100
Tl	205	-0.09285	ug/L	-0.093		100
V	51	-2.221141	ug/L	-2.199		100
Zn	64	-1.411079	ug/L	-1.405		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344		10000
Mg	24	-0.161123	ug/L	-0.002		10000
Mg	25	-0.20827	ug/L	-0.002		10000
Na	23	-0.132712	ug/L	-0.001		10000
P	31	22.784733	ug/L	0.228		10000
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338		10000
Mg	24	-0.17897	ug/L	-0.002		10000
Mg	25	-0.22029	ug/L	-0.002		10000
Na	23	-0.508698	ug/L	-0.005		10000
P	31	22.801151	ug/L	0.228		10000
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 07:16:32
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 08:48:17
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143		1
Hg	202	1.052693	ug/L	105.269		1
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067		1000
Mg	24	105.163942	ug/L	104.745		100
Mg	25	104.562376	ug/L	104.146		100
Mn	55	103.439706	ug/L	102.823		100
Na	23	107.064006	ug/L	105.482		100
Ni	60	103.416914	ug/L	103.005		100
Ni	62	104.626279	ug/L	104.209		100
Pb	208	102.222971	ug/L	101.412		100
Sb	121	105.67022	ug/L	105.249		100
Sb	123	106.381046	ug/L	105.957		100
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517		100
Tl	205	102.761032	ug/L	103.07		100
V	51	102.90077	ug/L	101.882		100
Zn	64	114.087363	ug/L	113.633		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757		1
Hg	202	1.034154	ug/L	103.415		1
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132		1000
Mg	24	104.129898	ug/L	103.715		100
Mg	25	103.655906	ug/L	103.243		100
Mn	55	104.253269	ug/L	103.631		100
Na	23	106.903493	ug/L	105.324		100
Ni	60	105.713366	ug/L	105.292		100
Ni	62	104.35735	ug/L	103.942		100
Pb	208	103.094453	ug/L	102.276		100
Sb	121	103.629563	ug/L	103.217		100
Sb	123	103.888418	ug/L	103.475		100
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303		100
Tl	205	102.099164	ug/L	102.406		100
V	51	103.657425	ug/L	102.631		100
Zn	64	114.231025	ug/L	113.776		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591		10000
Mg	24	9453.82297	ug/L	94.538		10000
Mg	25	9445.54684	ug/L	94.455		10000
Na	23	9519.12975	ug/L	95.191		10000
P	31	9507.21505	ug/L	95.072		10000
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333		10000
Mg	24	9627.10708	ug/L	96.271		10000
Mg	25	9643.50715	ug/L	96.435		10000
Na	23	9640.23924	ug/L	96.402		10000
P	31	9707.49771	ug/L	97.075		10000
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1	Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.688755	ug/L	108.324		31.1	Ag	109	33.078838	ug/L	106.363		31.1
Al	27	179.043586	ug/L	110.521		162	Al	27	174.750964	ug/L	107.871		162
As	75	45.162096	ug/L	111.511		40.5	As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.731851	ug/L	105.444		26.3	Ba	137	27.205882	ug/L	103.444		26.3
Be	9	64.398794	ug/L	120.823		53.3	Be	9	62.863805	ug/L	117.943		53.3
Cd	111	49.461889	ug/L	102.618		48.2	Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	49.490706	ug/L	102.678		48.2	Cd	114	48.546222	ug/L	100.718		48.2
Co	59	27.129774	ug/L	110.284		24.6	Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.414864	ug/L	107.955		11.5	Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.906814	ug/L	106.81		28	Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.383655	ug/L	104.942		28	Cu	65	29.413619	ug/L	105.049		28
Fe	54	47.801167	ug/L	107.66		44.4	Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	47.125058	ug/L	106.138		44.4	Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.442		Ge	72		ug/L		77.354	
Hg	200	1.059861	ug/L	105.986		1	Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.062051	ug/L	106.205		1	Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		91.204		Ho	165		ug/L		92.327	
In	115		ug/L		85.046		In	115		ug/L		86.826	
Mn	55	162.656169	ug/L	109.903		148	Mn	55	158.688787	ug/L	107.222		148
Ni	60	38.003502	ug/L	105.273		36.1	Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.531851	ug/L	103.966		36.1	Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.276791	ug/L	105.312		137	Pb	208	144.011138	ug/L	105.118		137
Sb	121	80.552718	ug/L	126.258		63.8	Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	81.755156	ug/L	128.143		63.8	Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.245		Sc	45		ug/L		76.361	
Se	82	176.391985	ug/L	108.884		162	Se	82	174.683949	ug/L	107.83		162
Tl	205	29.572709	ug/L	106.377		27.8	Tl	205	29.024052	ug/L	104.403		27.8
V	51	149.952502	ug/L	105.6		142	V	51	148.64255	ug/L	104.678		142
Zn	64	141.444438	ug/L	112.257		126	Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Silver spike only reported.

Sample ID: 123705.09
Sample Date/Time: Thursday, August 22, 2013 01:29:41
Autosampler Position: 83
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123705.09.77699

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24879.359	ug/L	
Be	9	0.062603	42.667	ug/L	0.013
B	10	23.380188	2722.101	ug/L	0.310
B	11	24.519970	14521.734	ug/L	0.830
C	12		620960.087	ug/L	
Na	23	12074.033084	75105400.702	ug/L	414.494
Mg	24	5704.348071	24527151.169	ug/L	206.088
Mg	25	5739.342650	3503321.593	ug/L	242.991
Al	27	2.898151	23358.974	ug/L	0.081
Si	28		17364850.167	ug/L	
P	31	24.932780	20749.058	ug/L	1.652
S	32		79793619.831	ug/L	
Cl	35		10060540.654	ug/L	
K	39	1641.113898	17104532.440	ug/L	43.949
Ca	44	15127.330472	4967909.271	ug/L	559.650
Sc	45		190873.526	ug/L	
Ti	47	1.331631	1326.777	ug/L	0.076
Ti	48	22.890006	211478.143	ug/L	1.224
V	51	-0.535506	29227.204	ug/L	0.047
ClO	51		29805.412	ug/L	
Cr	52	-0.171465	7451.522	ug/L	0.028
Cr	53	-2.069733	9477.366	ug/L	0.322
Fe	54	2682.099979	2242896.548	ug/L	124.456
Mn	55	991.253914	16550076.189	ug/L	30.811
Fe	56	2625.513989	38481778.752	ug/L	55.292
Fe	57	2677.954315	881407.247	ug/L	82.490
Co	59	0.184278	4483.150	ug/L	0.016
Ni	60	2.404814	6045.403	ug/L	0.096
Ni	62	1.947287	776.374	ug/L	0.137
Cu	63	0.961944	5536.741	ug/L	0.051
Zn	64	16.226364	42935.777	ug/L	0.723
Cu	65	0.874392	2532.045	ug/L	0.024
Zn	66	16.499414	26069.921	ug/L	0.700
Zn	68	16.348673	19497.415	ug/L	0.473
Ge	72		162541.337	ug/L	
As	75	0.202942	200.314	ug/L	0.051
Se	82	0.450825	95.740	ug/L	0.084
ArCl	77		690.366	ug/L	
Br	79		34216.752	ug/L	

Br	81		54107.269	ug/L	
Y	89		425759.102	ug/L	
Mo	95	0.354658	1439.462	ug/L	0.010
Rh	103		409667.539	ug/L	
Ag	107	0.089390	1596.490	ug/L	0.007
Ag	109	0.095610	1586.488	ug/L	0.010
Cd	111	-0.006221	337.010	ug/L	0.007
Cd	114	0.000499	849.048	ug/L	0.009
In	115		600446.055	ug/L	
Sb	121	0.268817	2769.116	ug/L	0.009
Sb	123	0.267197	2113.425	ug/L	0.000
Ba	137	2.045575	12001.371	ug/L	0.020
Ba	138	2.045423	77825.326	ug/L	0.068
Tb	159		821900.361	ug/L	
Ho	165		803770.719	ug/L	
Hg	200	0.001894	26.667	ug/L	0.001
Hg	202	0.002606	39.000	ug/L	0.001
Tl	205	-0.070622	2417.347	ug/L	0.008
Pb	208	0.027736	2824.531	ug/L	0.001
Bi	209		724164.112	ug/L	
Se	77	-0.708604	704.701	ug/L	0.200
Se	78	-6.169844	8644.549	ug/L	0.254

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		92.662
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	82.355
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	91.670
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	97.365
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73946.5, 73992.1, 74240.1	83.4	DMS	
LCS	↓	↓	73087.1, 72276.5, 43816.1	↓	↓	
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72276.5, 43816.1			25mL
123529.1MSD			73087.1, 72276.5, 43816.1			25 mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

Page:_____

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			25 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			73966.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.02	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

306

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	739616.6, 73992.1, 74240.1	83.5	DMS	
LCS	↓	↓	73087.1, 72276.5, 43816.1	↓	↓	
AgLCS			43818.1			
1231622.01						
1231629.01						
02						
1231641.01						
02						
1231642.04						
05						1:10 dilution
1231647.01						1:10 dilution
02						
03						
1231648.01						
1231649.01						
649.01 MS			73087.1, 72276.5, 43816.1			
649.01 MSD			73087.1, 72276.5, 43816.1			
1231649.02						
1231649.03						
1231649.04						
649.04 MS			73087.1, 72276.5, 43816.1			
649.04 MSD			73087.1, 72276.5, 43816.1			
1231650.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73966.10, 73992.1, 74240.1	83.7	DMS	
LCS	↓	↓	73087.1, 72276.5, 43816.1	↓	↓	
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	JDMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72276.5, 43816.1			25 mL
711.02 MSD			73087.1, 72276.5, 43816.1			25 mL
123741.01	↓	↓	↓	↓	↓	

Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123714
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/20/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 9.3.13 Date | 64 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123714**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1.2 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123714.01	Trip Blank	8/20/13	8/6/13	aqueous		Adheres to Sample Acceptance Policy
123714.02	GW-FPC-7B-43BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.03	GW-FPC-7B-38BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.04	GW-FPC-7B-33BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.05	GW-FPC-4B-31BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.06	GW-FPC-4B-26BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.07	GW-FPC-4B-20BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.08	GW-FPC-6B-26BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.09	GW-FPC-6B-21BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123714.1	GW-FPC-6B-16BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT



EAI ID#: **123714**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/20/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

No field QC was designated for this sample delivery group.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

1,4 DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.
All Quality Control criteria were met.

LABORATORY REPORT

EAI ID#: **123714**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank	GW-FPC-7B -43BGS-0813	GW-FPC-7B -38BGS -0813	GW-FPC-7B -33BGS-0813	GW-FPC-4B -31BGS -0813	GW-FPC-4B -26BGS -0813	GW-FPC-4B -20BGS -0813
Lab Sample ID:	123714.01	123714.02	123714.03	123714.04	123714.05	123714.06	123714.07
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/6/13	8/19/13	8/19/13	8/19/13	8/19/13	8/19/13	8/19/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13	8/23/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1	1	1	1
1,4-Dioxane	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	**99 %R**	**99 %R**	**100 %R**	**100 %R**	**100 %R**	**101 %R**	**103 %R**
Toluene-d8 (surr)	**92 %R**	**98 %R**	**97 %R**	**97 %R**	**93 %R**	**93 %R**	**99 %R**

LABORATORY REPORT

EAI ID#: **123714**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-FPC-6B-26BGS-0813	GW-FPC-6B -21BGS-0813	GW-FPC-6B -16BGS -0813
Lab Sample ID:	123714.08	123714.09	123714.1
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	8/19/13	8/19/13	8/19/13
Date Received:	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l
Date of Analysis:	8/23/13	8/23/13	8/23/13
Analyst:	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	10	10	10
1,4-Dioxane	**12**	**13**	**18**
4-Bromofluorobenzene (surr)	**101 %R**	**103 %R**	**104 %R**
Toluene-d8 (surr)	**96 %R**	**94 %R**	**94 %R**

QC REPORT

EAI ID#: **123714**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	4.3 (87 %R)	4.4 (88 %R) (1 RPD)	ug/l	8/23/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	99 %R	98 %R	100 %R	% Rec	8/23/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	92 %R	97 %R	94 %R	% Rec	8/23/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

123714

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 BTEX 524.2 MTBE ONLY	VOC: 8260B 624 VTICS / 1, 4 DIOXANE	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP / ABN A BN PAH	SVOC: TPH8100 LI L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 / PEST 8081A PCB 8082	SVOC: OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS / VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.	INORGANICS: BR CL F SO_4 / NO_2 NO_3 NO_2NO_3	INORGANICS: BOD CBOD T. ALK.	INORGANICS: TKN NH_3 T. PHOS. O. PHOS.	INORGANICS: PH T. RES. CHLORINE	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE / FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI / FECAL COLIFORM	MICRO: ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: 1,4 Dioxane	OTHER	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
TRIP BLANK	8/14/13 0927	GW	G																								X			2	
GW-FPC-7B-43BGS-0813	0927																										X			2	
GW-FPC-7B-38BGS-0813	0946																										X			2	
GW-FPC-7B-33BGS-0813	1008																										X			2	
GW-FPC-4B-31BGS-0813	1618																										X			2	
GW-FPC-4B-26BGS-0813	1629																										X			2	
GW-FPC-4B-20BGS-0813	1639																										X			2	
GW-FPC-6B-26BGS-0813	1423																										X				
GW-FPC-6B-21BGS-0813	1438																										X				
GW-FPC-6B-16BGS-0813	1454																										X				
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER																											X				
PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH																															

PROJECT MANAGER: Steve Marcotte

COMPANY: Summit Environmental Consultants

ADDRESS: 640 Main Street

CITY: LEWISTON STATE: ME ZIP: 04240

PHONE: 207-795-6009 EXT.:

FAX:

E-MAIL: SMARCOTTE@SUMMITENV.COM

SITE NAME: COAKLEY LANDFILL

PROJECT #: 12-3173

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: Superfund.

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C (SPECIAL) OR PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS (YES) OR NO; IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS: NO FAX E-MAIL (PDF) EQUIS

TEMP. 12 °C ICE? (YES) NO

SAMPLER(S)	DATE	TIME	RECEIVED BY
Daniels / Marcotte			
RELINQUISHED BY:	8/20/13	1120	
RELINQUISHED BY:	8-20-13	14:05	
RELINQUISHED BY:			
RELINQUISHED BY:			

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☒ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

Analyst: VG

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 5/10/17

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	5A1001	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMDSTD	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120264.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120264.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	17					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120271.02				✓	VOC			
41	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by VG 5/13/17

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

6 (#) = Out of Range

Response Factor Report VOAMS2

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

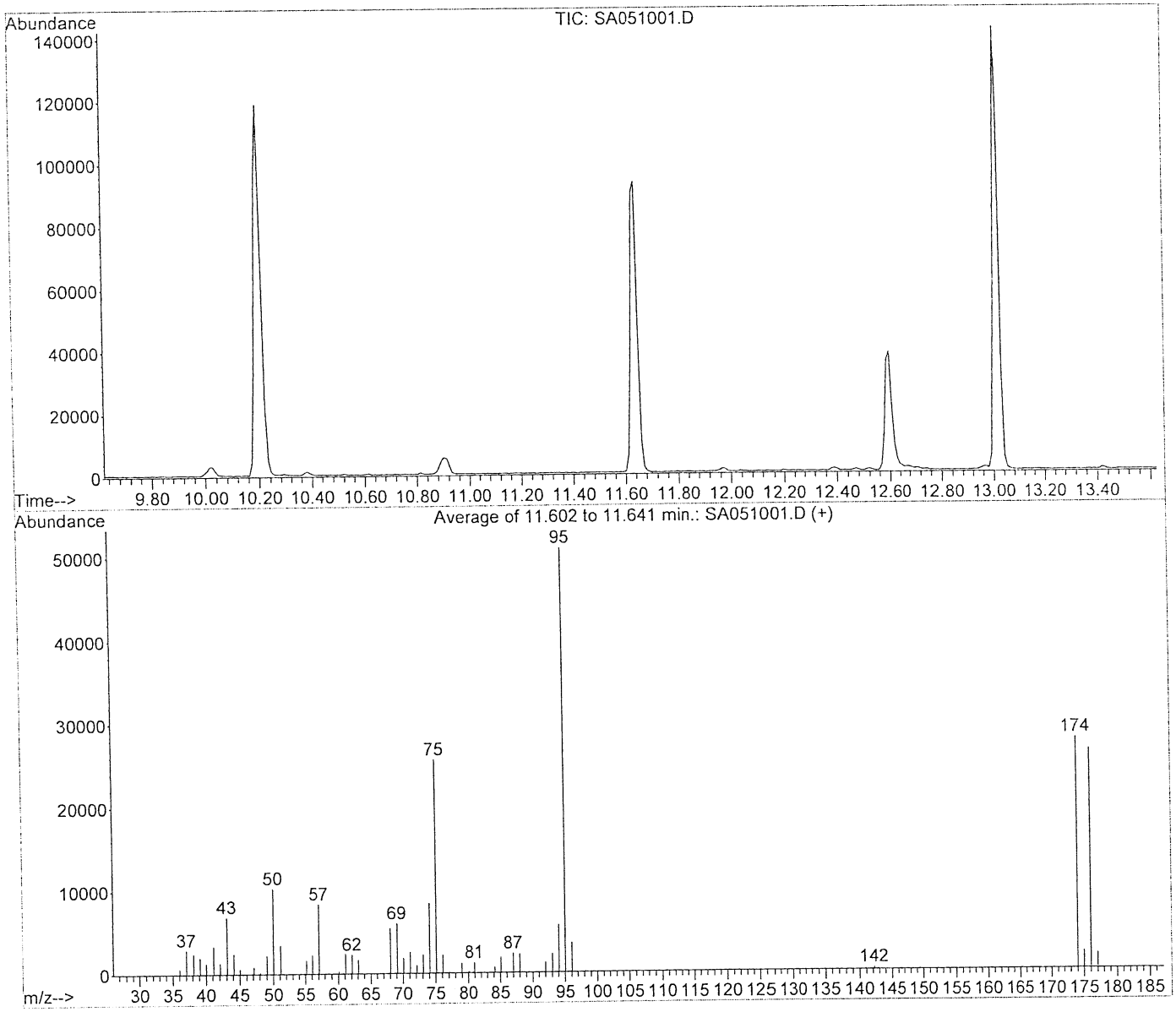
Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	----------ISTD----------							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D
Acq On : 10 May 2013 1:42 pm
Sample : BFB
Misc : X1;5mL
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09

Vial: 1
Operator: VG
Inst : VOAMS2
Multiplr: 1.00



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

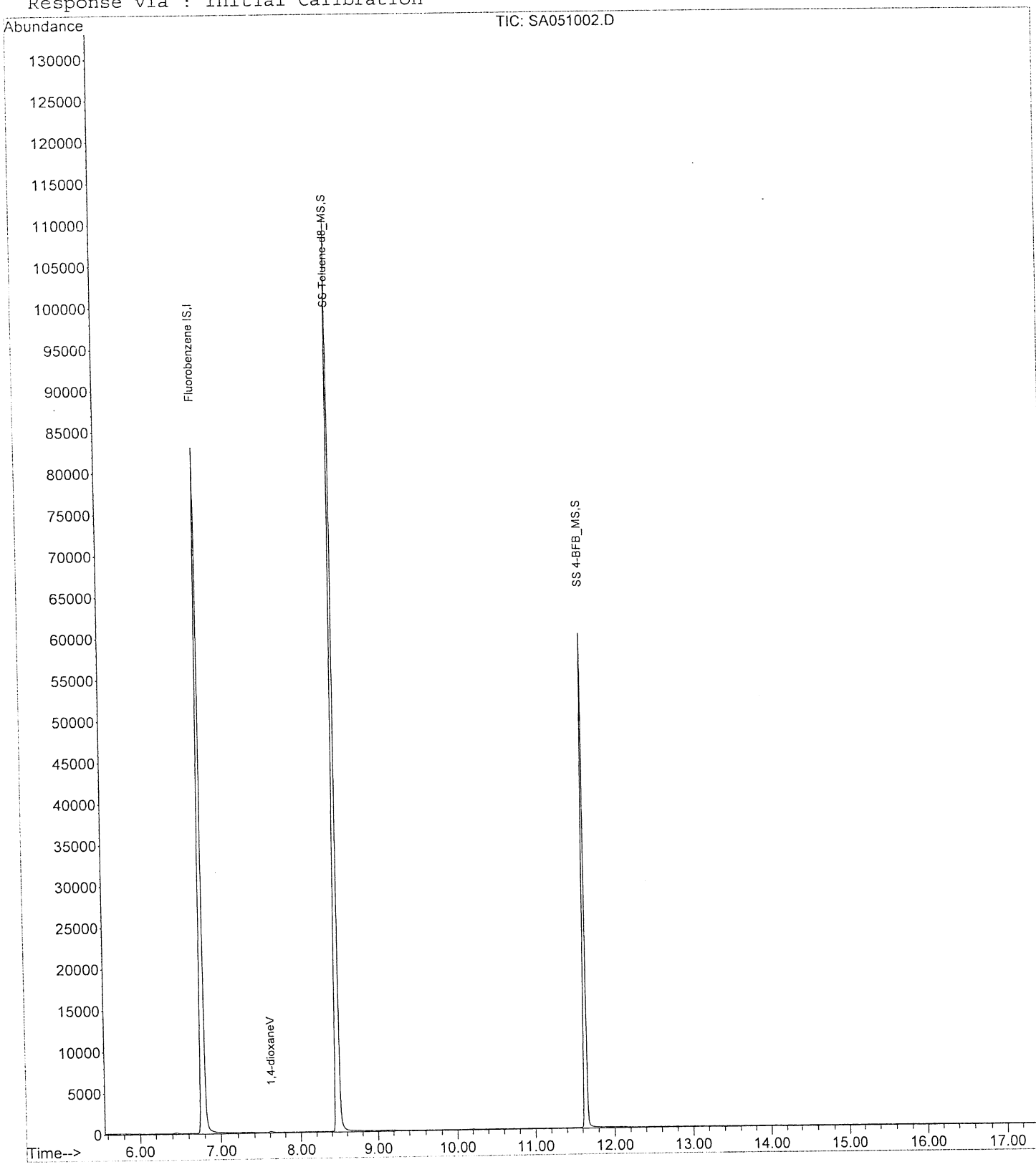
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	160084	9.79	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	97.91%		
4) SS 4-BFB_MS		11.64	95	56746	10.12	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	101.22%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051002.D 2SIM0510.M Wed Aug 21 13:48:36 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

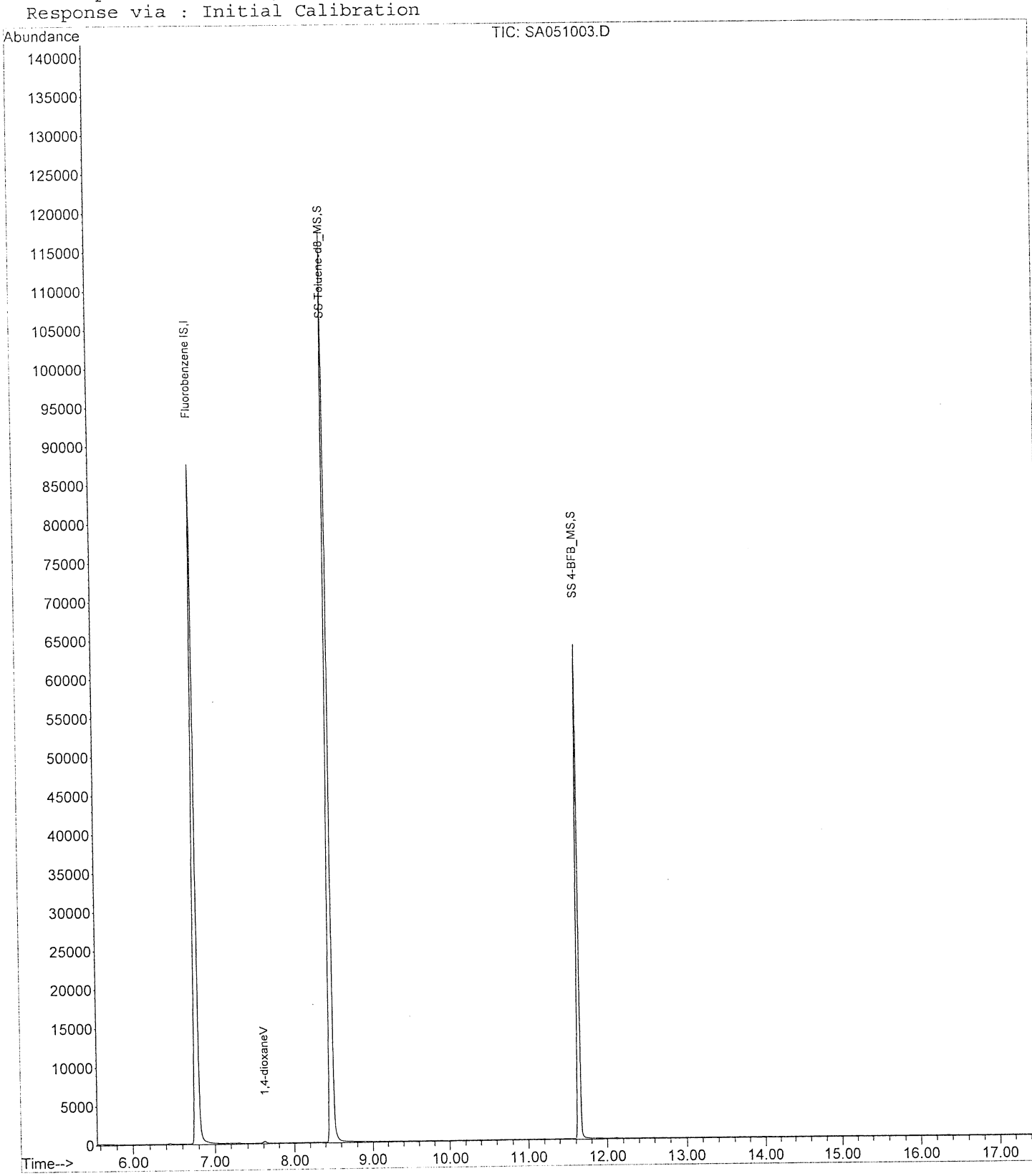
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051003.D 2SIM0510.M Wed Aug 21 13:48:46 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

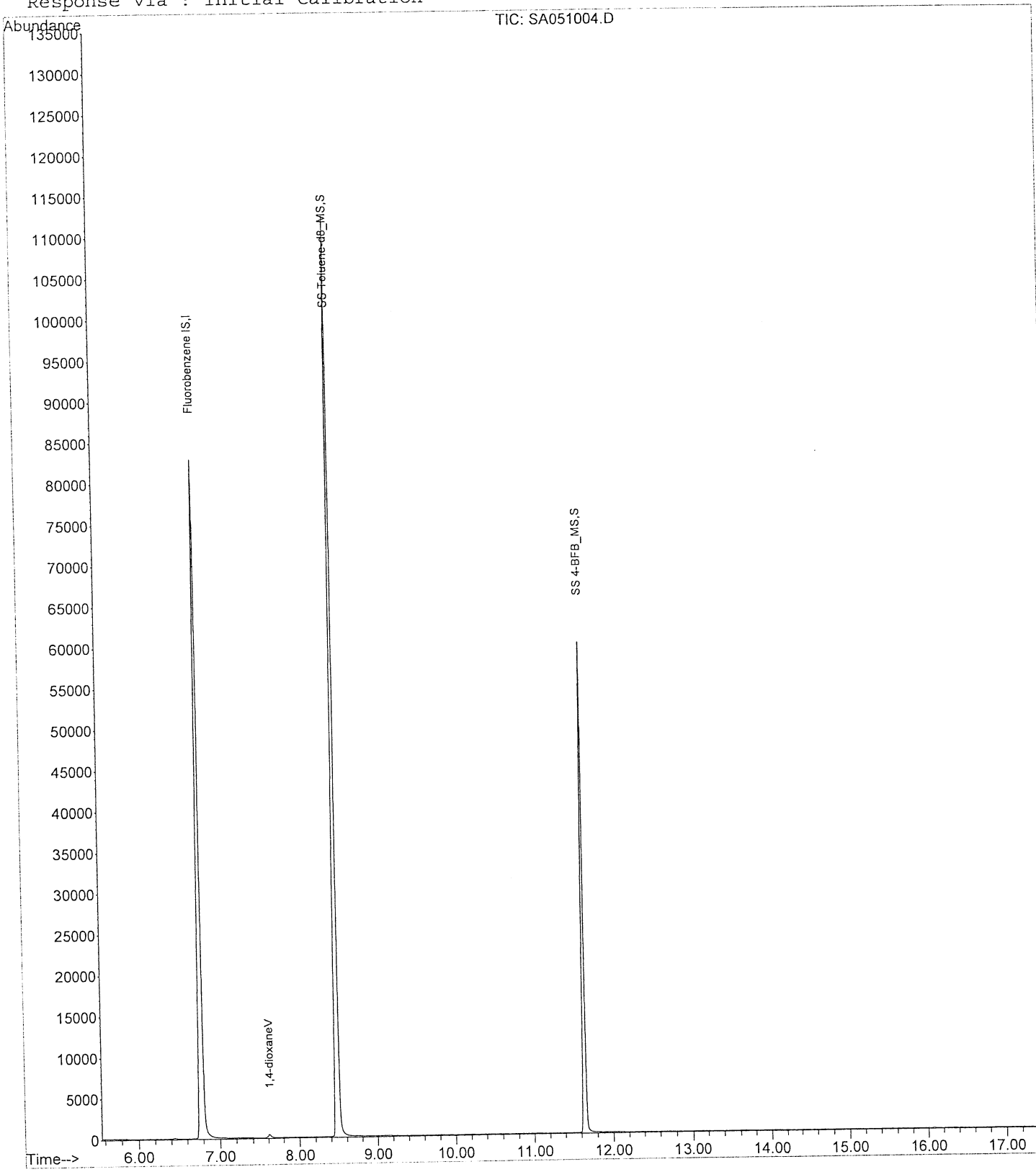
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.47	98	156464	9.46	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	94.57%		
4) SS 4-BFB_MS			11.64	95	56944	10.04	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	100.38%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051004.D 2SIM0510.M Wed Aug 21 13:48:57 2013

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

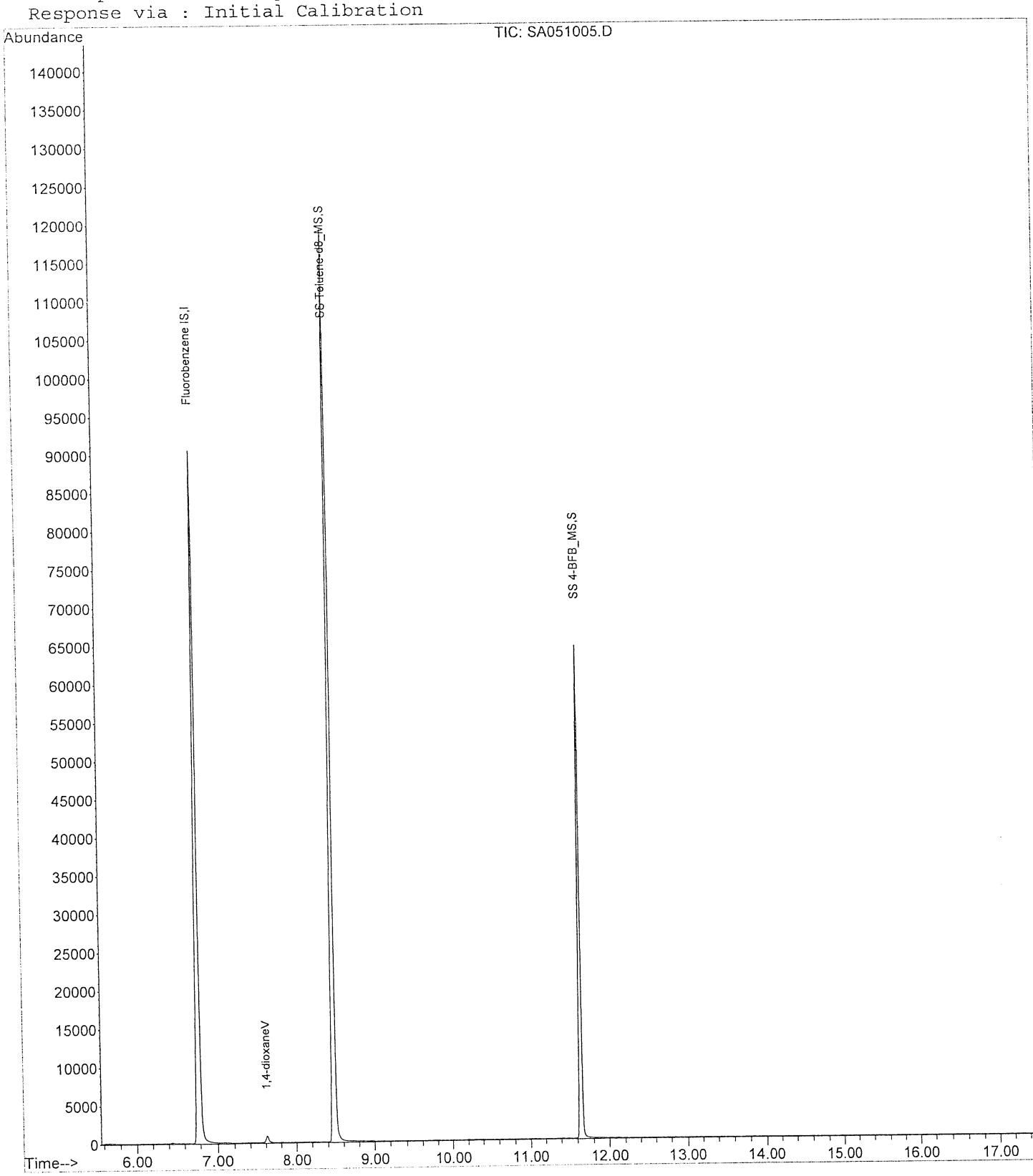
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170943	9.68	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.75%			
4) SS 4-BFB_MS	11.64	95	59771	9.87	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051005.D 2SIM0510.M Wed Aug 21 13:49:17 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

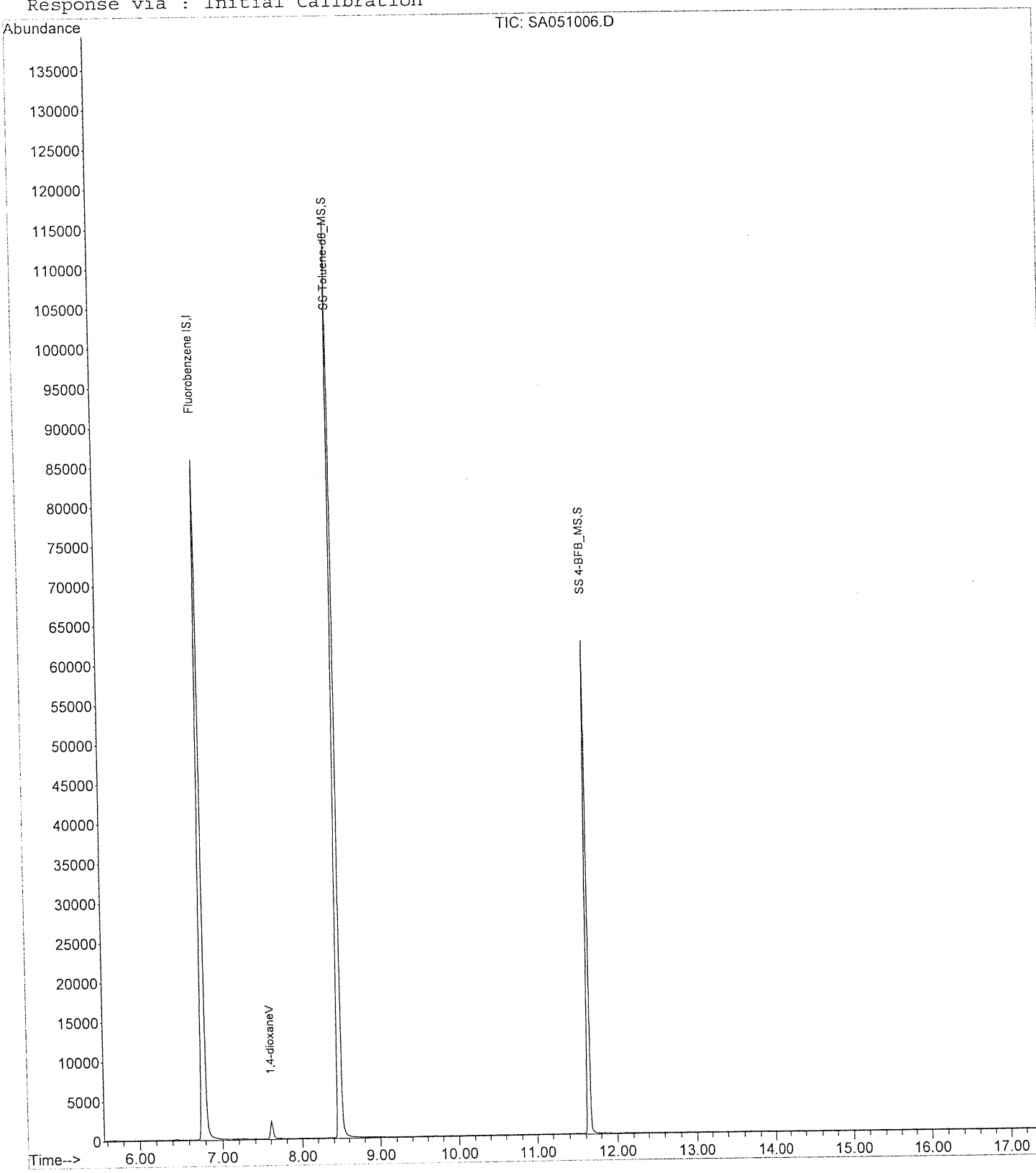
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	167384	9.78	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS		11.64	95	58776	10.02	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

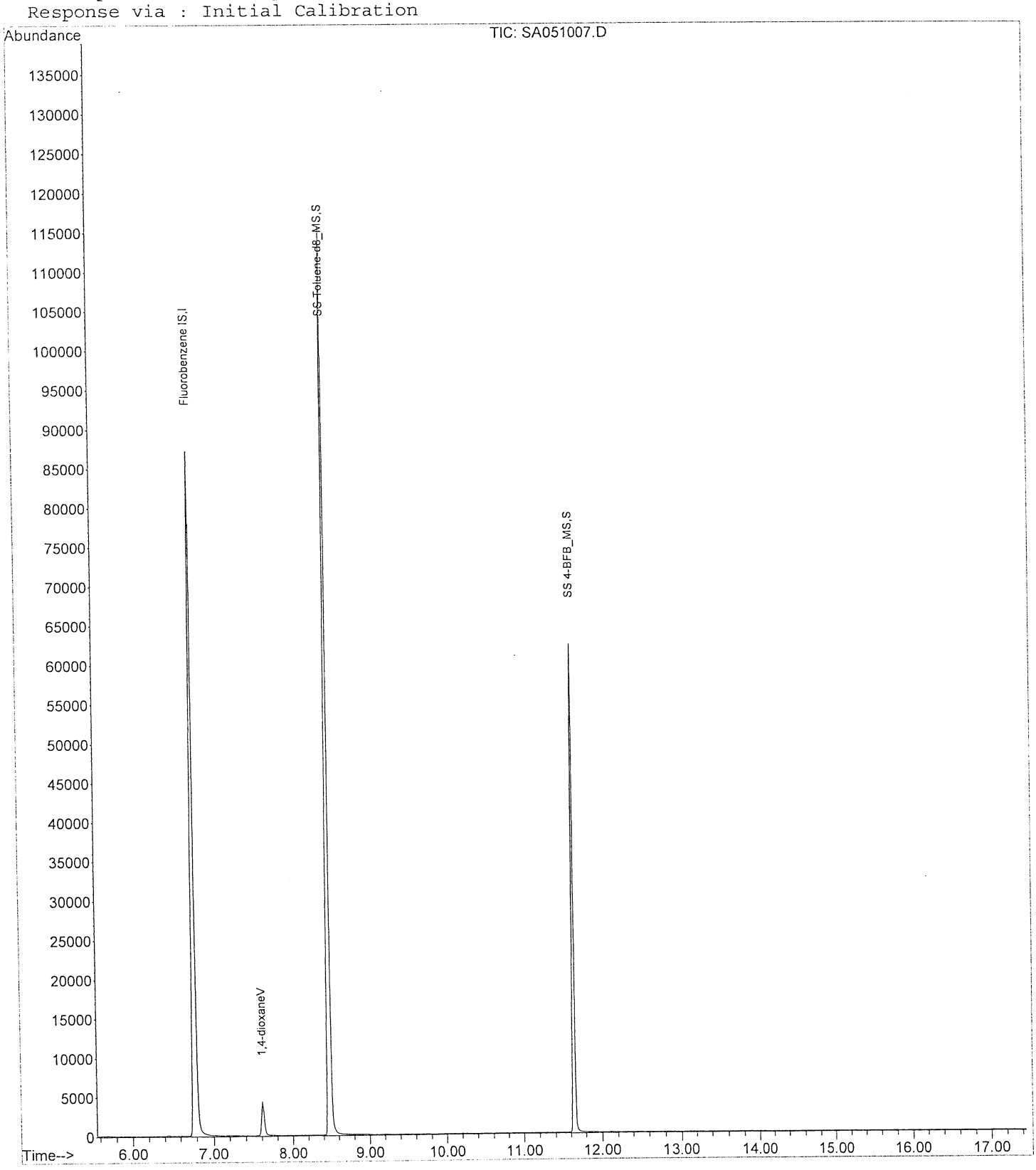
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	159671	9.27 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%		
4) SS 4-BFB_MS	11.64	95	58595	9.92 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530 ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

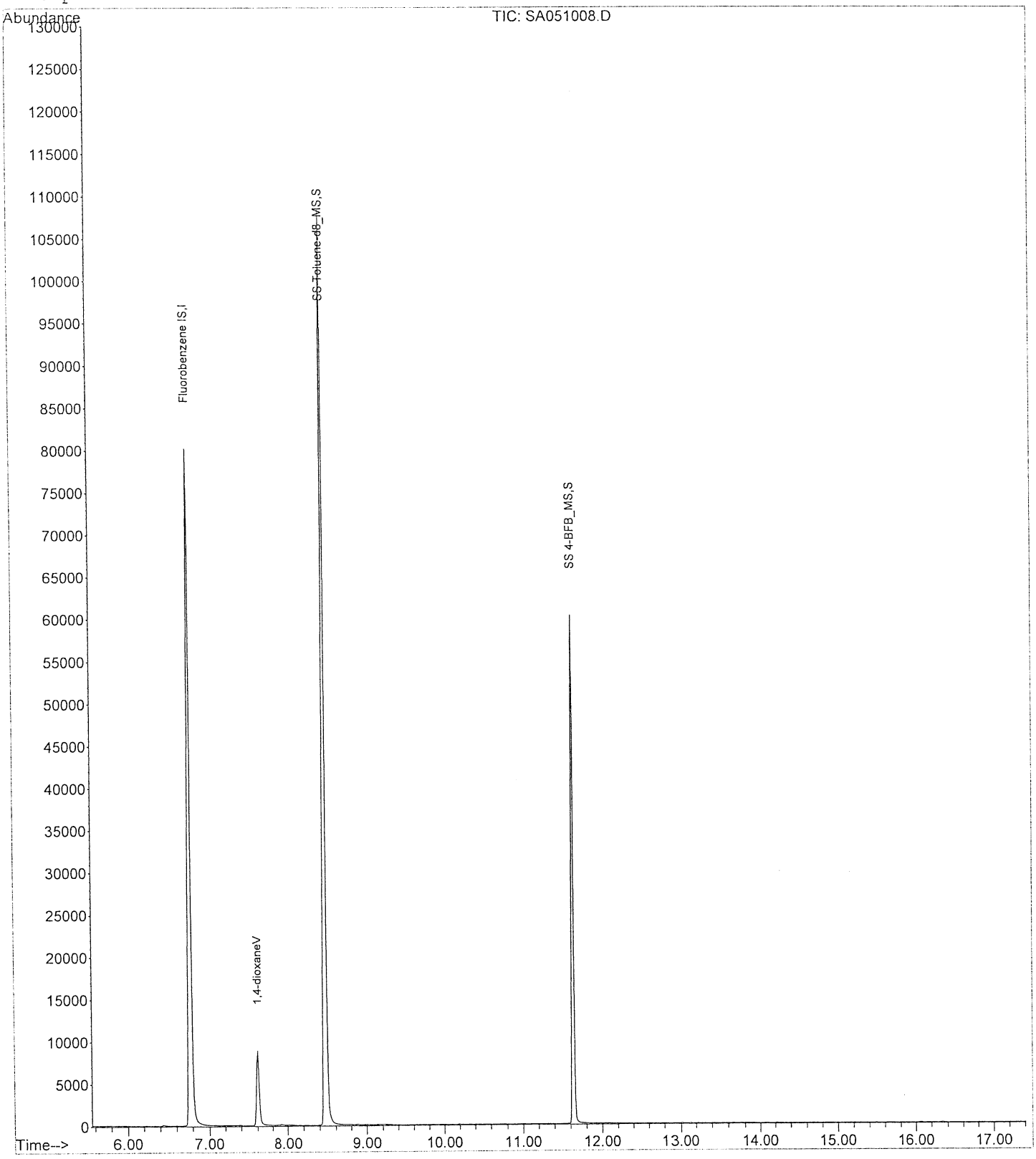
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	149017	9.37	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%			
4) SS 4-BFB_MS	11.64	95	55675	10.21	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

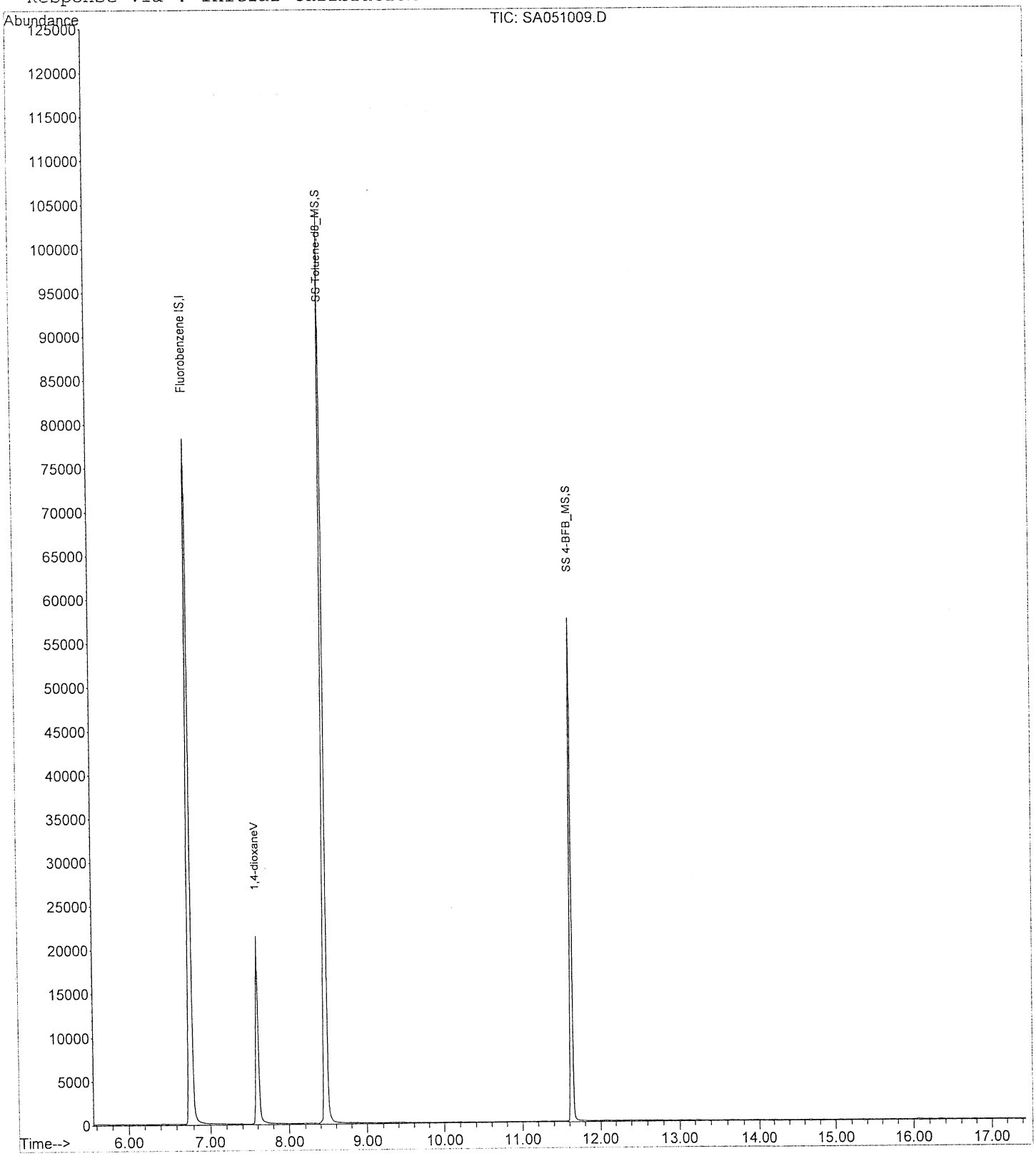
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	148830	9.89	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS	11.63	95	52945	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051009.D 2SIM0510.M Wed Aug 21 13:50:39 2013

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

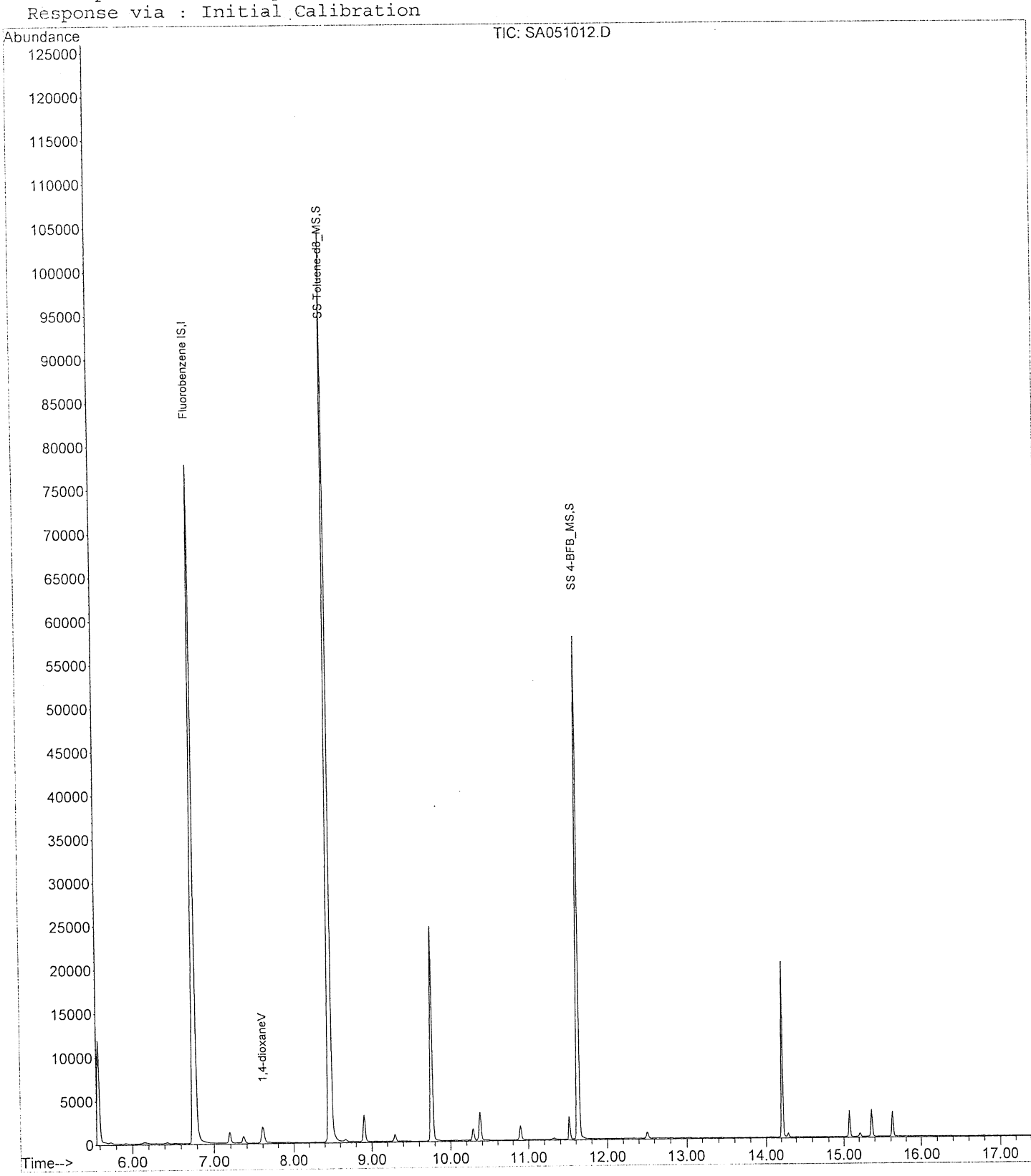
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS			6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds								
3) SS Toluene-d8_MS			8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130			Recovery =	99.14%		
4) SS 4-BFB_MS			11.63	95	52679	10.31	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130			Recovery =	103.13%		
Target Compounds								Qvalue
2) 1,4-dioxaneV			7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA051012.D 2SIM0510.M Wed Aug 21 13:50:52 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



123714
1,4 Dioxane 8260B SIM
Support Data

IS/SS ID= V- 4079

Standard ID= V- 4040

Analyst: VB

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Date: 8/23/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	52305331	BMB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	25MSID		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank					VOC			
6	6	123714.01					VOC			
7	7	02					VOC			
8	8	03					VOC			
9	9	04					VOC			
10	10	05					VOC			
11	11	06					VOC			
12	12	07				↓	VOC			
13	13	08				X10	VOC			
14	14	09				↓	VOC			
15	15	10				↓	VOC			
16	16	STD.25				X1	VOC			
17	17	BMB				↑	VOC MSI			
18	18	STD5				↑	VOC SIM			
19	19	LCS				↑	VOC			
20	20	LCSD				↑	VOC			
21	21	Blank				↑	VOC			
22	22	123739.01				↓	VOC			
23	23	02				X10	VOC			
24	24	03				↓	VOC			
25	25	04				↓	VOC			
26	26	09				↓	VOC			
27	27	10				↓	VOC			
28	28	11				↓	VOC			
29	29	12				↓	VOC			
30	30	123825.01				X100	VOC			
31	31	02		↓		X1	VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by _____ 8/26/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2313\SA082301.D
Tune Time : 23 Aug 2013 11:02 am

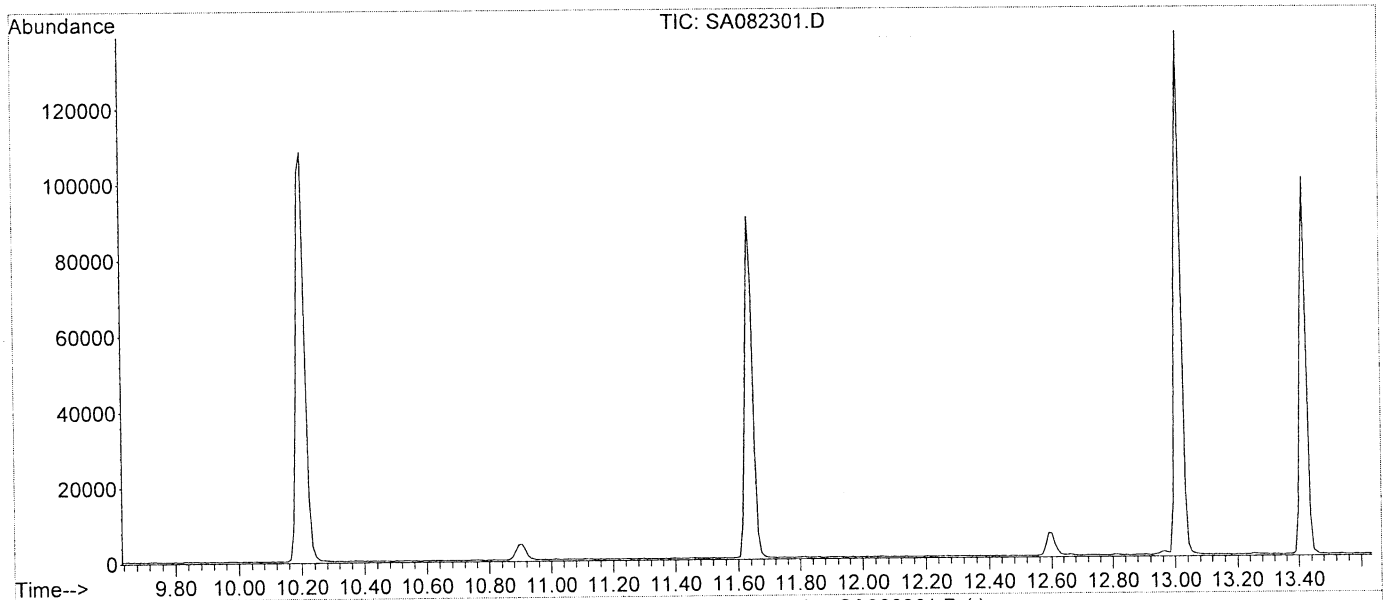
Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2313\SA082302.D

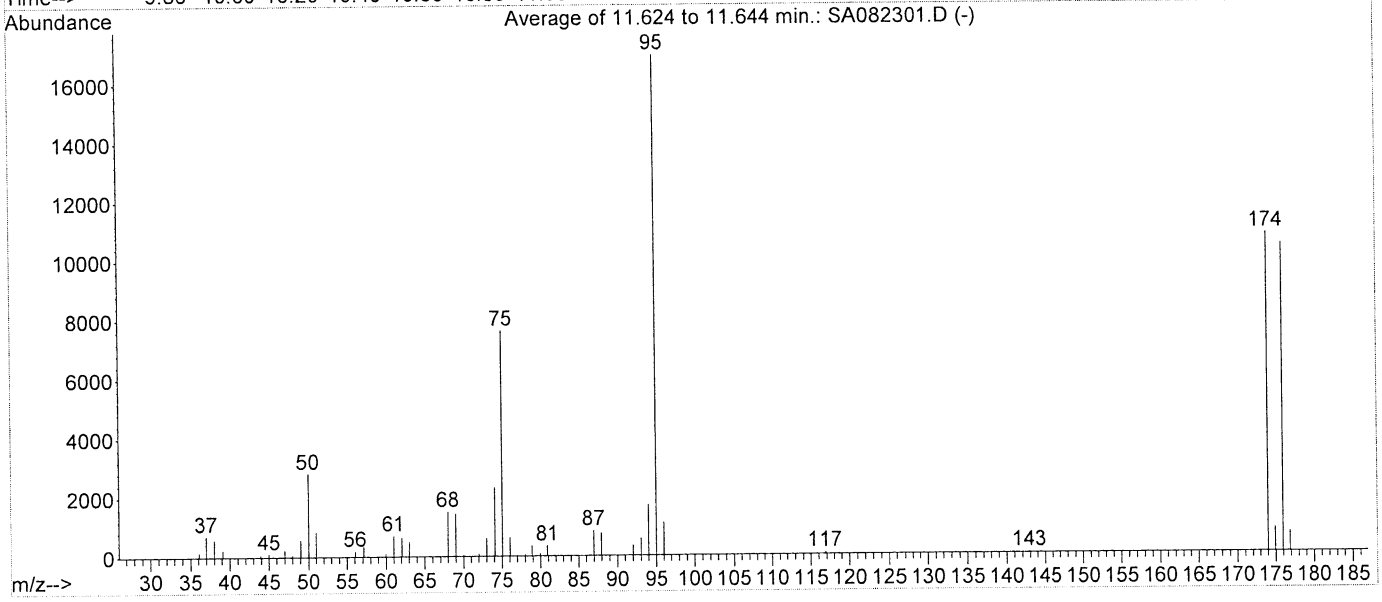
				175019
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082302.D	STD5	97	100	175019
SA082303.D	LCS5	97	98	178975
SA082304.D	LCSD	94	100	176936
SA082305.D	BLANK	92	99	176226
SA082306.D	123714.01	92	99	178044
SA082307.D	123714.02	98	99	176148
SA082308.D	123714.03	97	100	177027
SA082309.D	123714.04	97	100	174632
SA082310.D	123714.05	93	100	172534
SA082311.D	123714.06	93	101	168003
SA082312.D	123714.07	99	103	156145
SA082313.D	123714.08	96	101	156350
SA082314.D	123714.09	94	103	158402
SA082315.D	123714.10	94	104	157731
SA082316.D	tSTD0.25	99	104	154775

t - fails 12hr time check * - fails criteria

Created: Mon Aug 26 08:34:22 2013 VOAMS2

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082301.D Vial: 1
Acq On : 23 Aug 2013 11:02 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09





Spectrum Information: Average of 11.624 to 11.644 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	2825	PASS
75	95	30	60	45.0	7627	PASS
95	95	100	100	100.0	16948	PASS
96	95	5	9	6.6	1122	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	63.5	10761	PASS
175	174	5	9	7.6	818	PASS
176	174	95	101	96.7	10403	PASS
177	176	5	9	6.4	669	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 11:52 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	110	0.00
2		1,4-dioxaneV	5.000	4.760	4.8	104	0.00
3	S	SS Toluene-d8_MS	10.000	9.733	2.7	106	0.00
4	S	SS 4-BFB_MS	10.000	10.039	-0.4	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Tue Aug 27 12:26:54 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 11:52 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 23 12:20:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

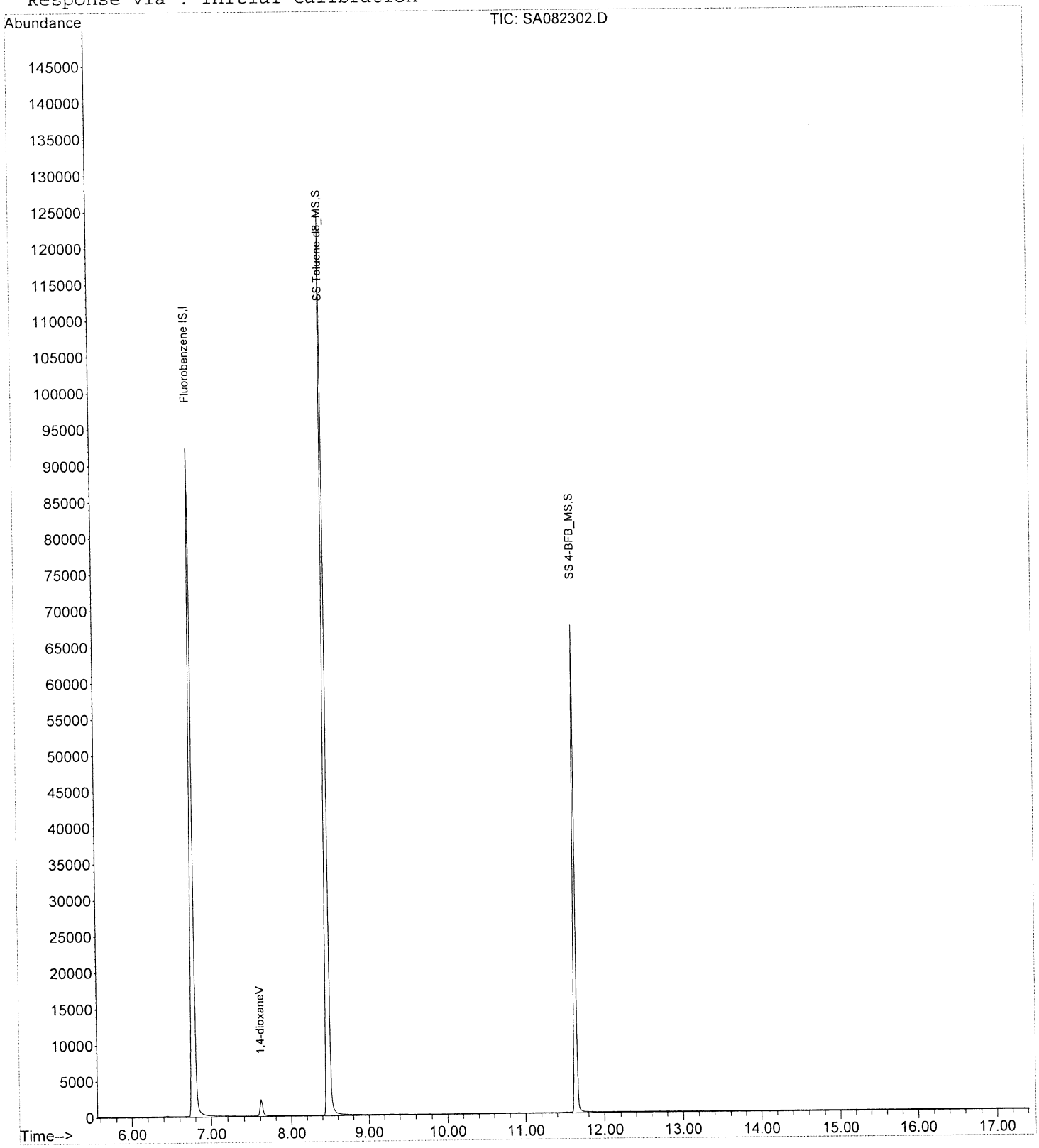
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	175019	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176813	9.73	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.33%			
4) SS 4-BFB_MS	11.64	95	65329	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.39%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3496m	4.760	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082302.D Vial: 2
Acq On : 23 Aug 2013 11:52 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:39 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 12:40 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:26:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

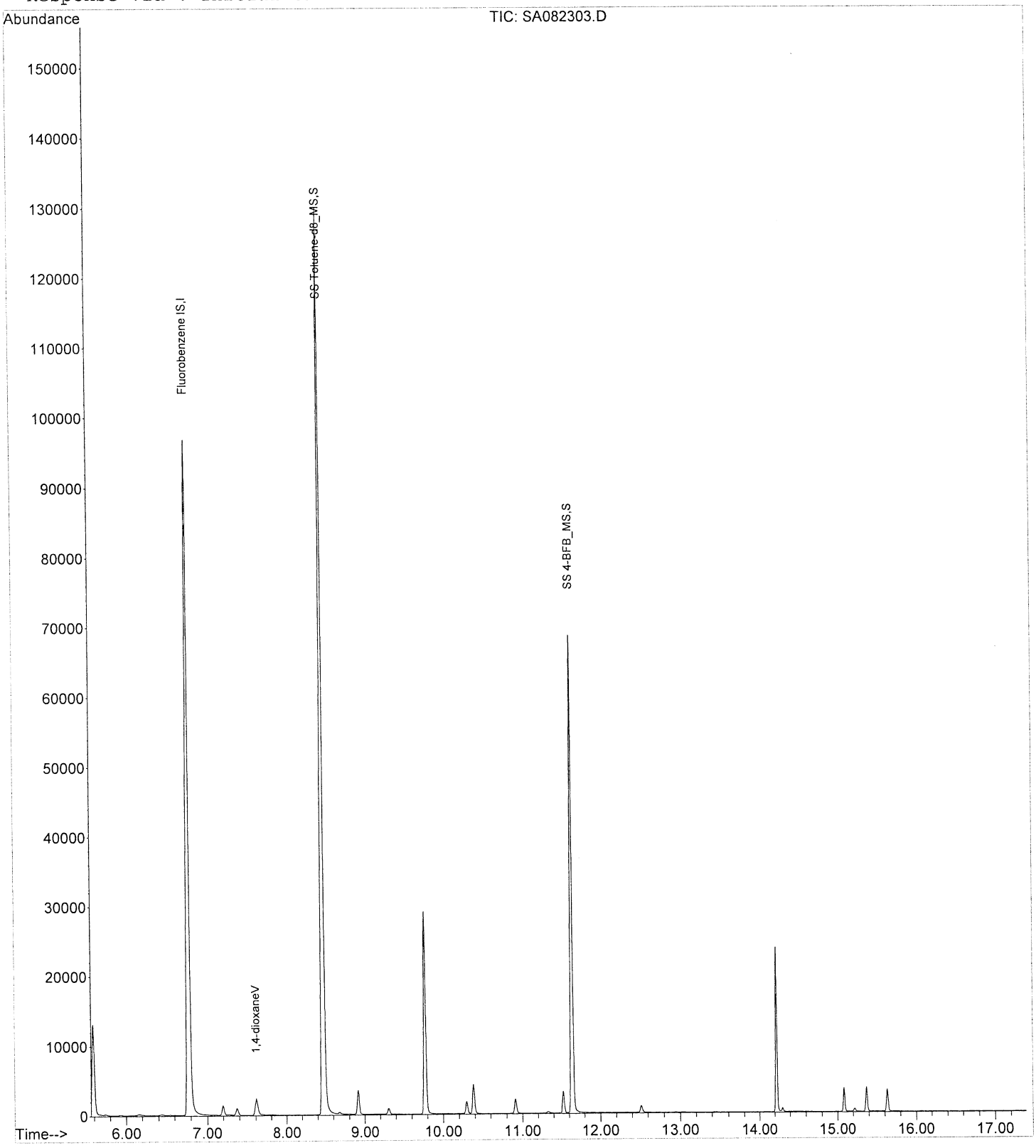
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	178975	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	180741	9.73	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.29%			
4) SS 4-BFB_MS	11.64	95	65248	9.80	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.05%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3257m	4.336	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082303.D Vial: 3
Acq On : 23 Aug 2013 12:40 pm Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:39 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 1:29 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:27:56 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

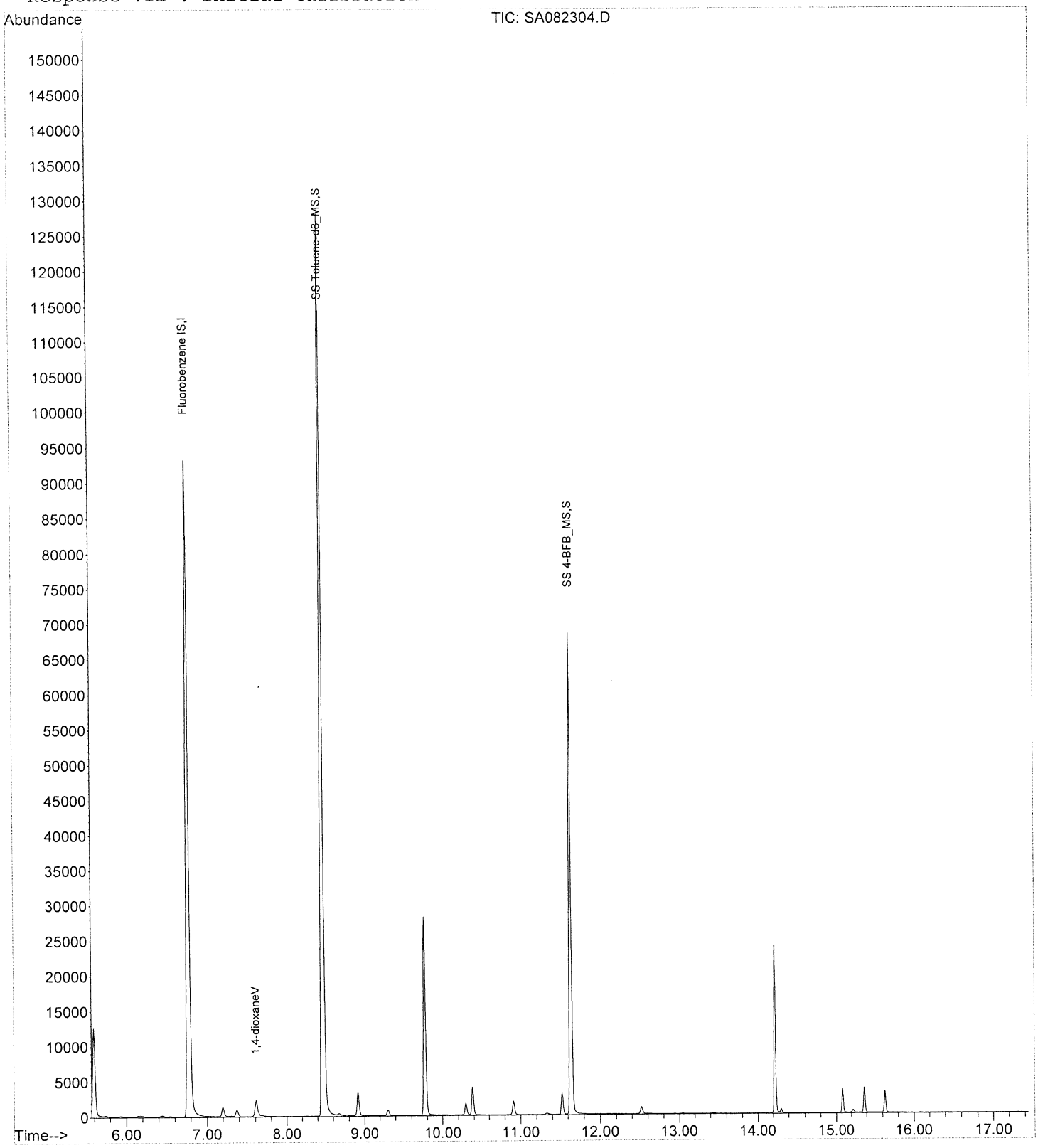
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176936	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.48	98	172702	9.40	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.03%			
4) SS 4-BFB_MS	11.64	95	66014	10.03	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.34%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3281m	4.419	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082304.D Vial: 4
Acq On : 23 Aug 2013 1:29 pm Operator: VG
Sample : LCSD Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:40 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082305.D Vial: 5
Acq On : 23 Aug 2013 2:18 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:28:06 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

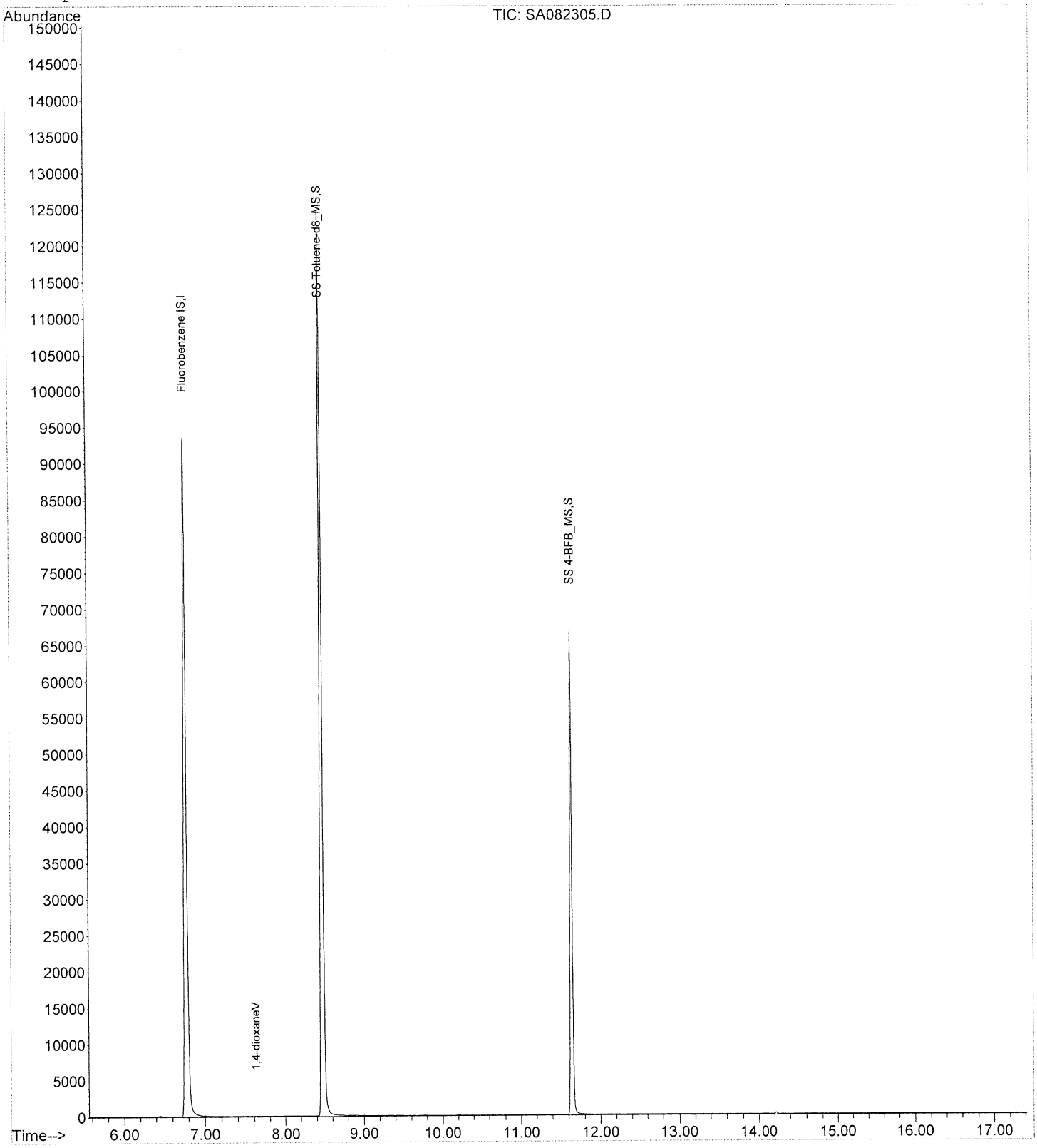
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176226	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	169052	9.24	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.42%			
4) SS 4-BFB_MS	11.64	95	65142	9.94	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	77m	0.104	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082305.D Vial: 5
Acq On : 23 Aug 2013 2:18 pm Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:40 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082306.D Vial: 6
Acq On : 23 Aug 2013 3:06 pm Operator: VG
Sample : 123714.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:29 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	178044	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170731	9.24	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.38%			
4) SS 4-BFB_MS	11.64	95	65605	9.91	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.10%			
Target Compounds						Qvalue

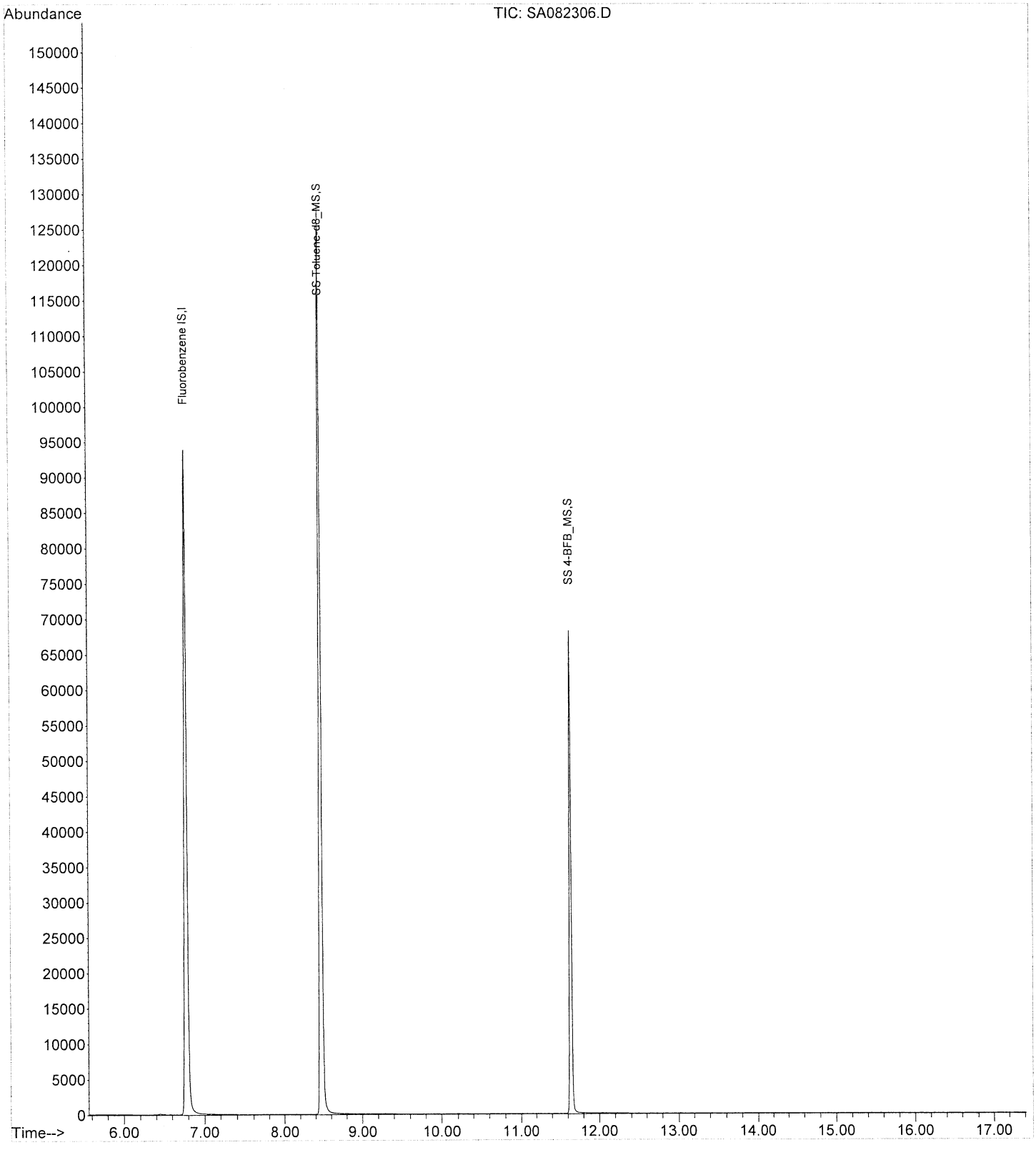
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082306.D 2SIM0510.M Mon Aug 26 08:30:34 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082306.D Vial: 6
Acq On : 23 Aug 2013 3:06 pm Operator: VG
Sample : 123714.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082307.D Vial: 7
Acq On : 23 Aug 2013 3:55 pm Operator: VG
Sample : 123714.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:38 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	176148	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178672	9.77	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.72%			
4) SS 4-BFB_MS	11.64	95	64580	9.86	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.60%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	57	0.077	ug/L	88

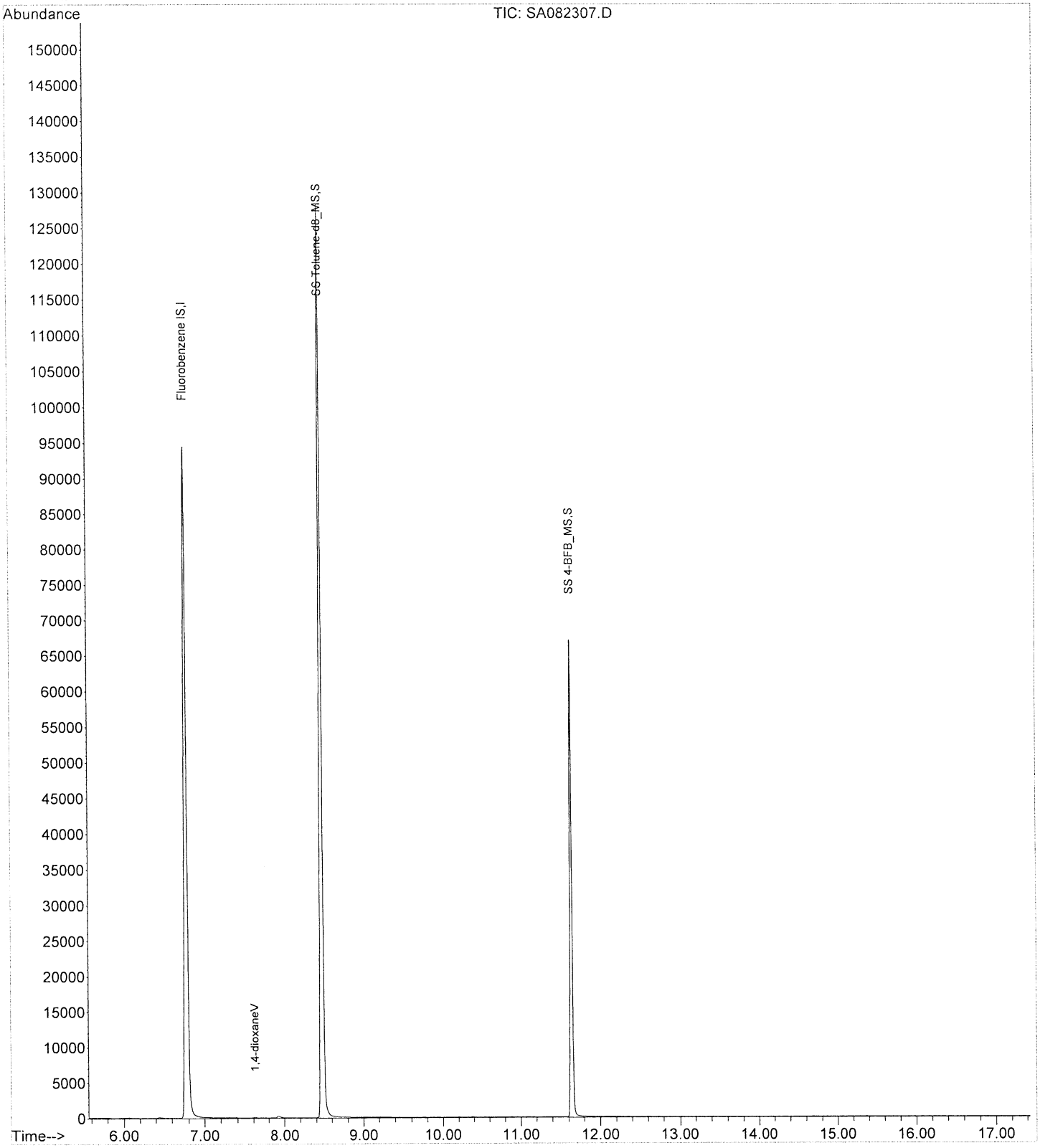
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082307.D Vial: 7
Acq On : 23 Aug 2013 3:55 pm Operator: VG
Sample : 123714.02 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082308.D Vial: 8
Acq On : 23 Aug 2013 4:43 pm Operator: VG
Sample : 123714.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:41 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	177027	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	178043	9.69	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.89%			
4) SS 4-BFB_MS	11.64	95	65813	10.00	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.98%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	59	0.079	ug/L	96

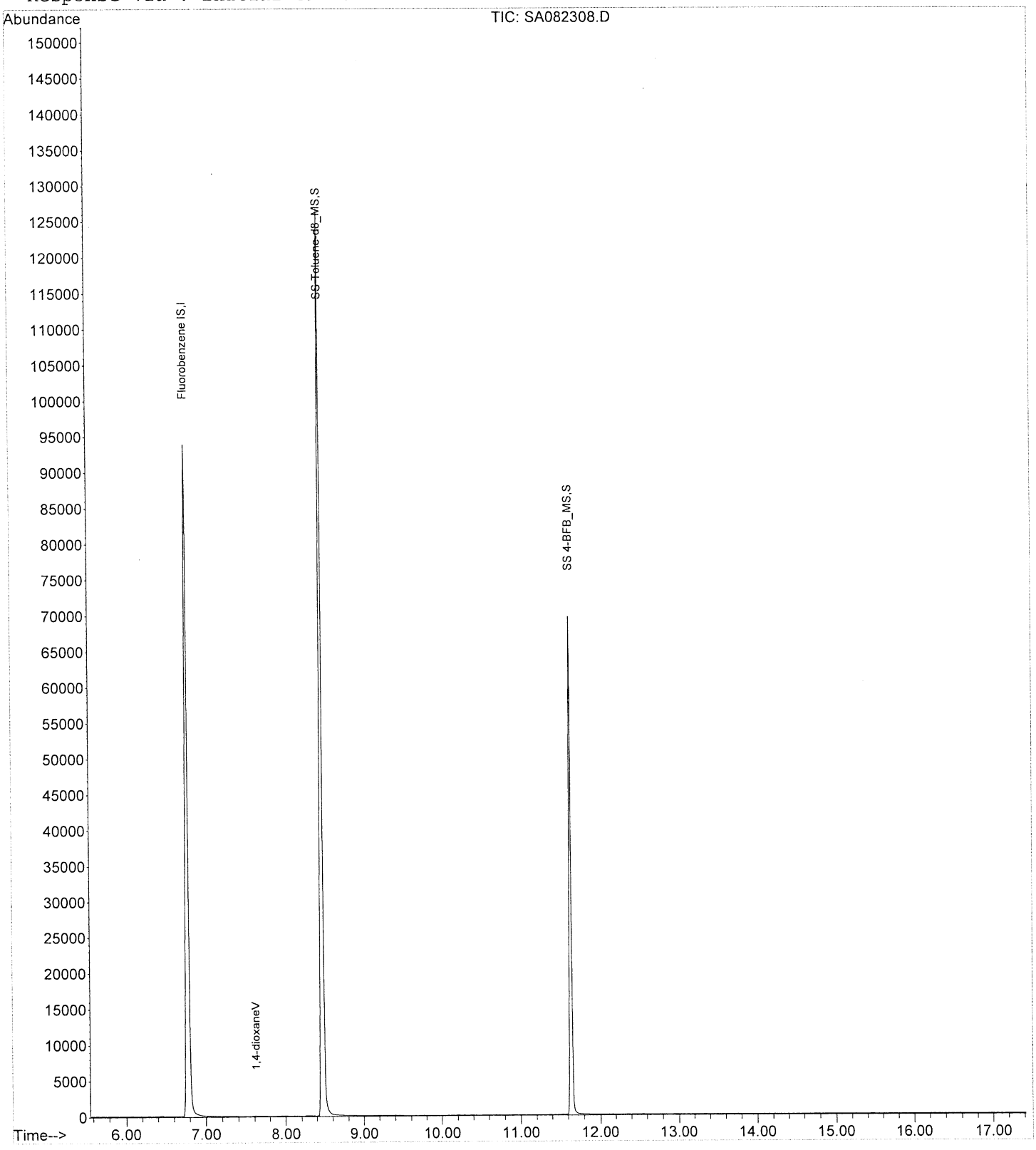
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082308.D Vial: 8
Acq On : 23 Aug 2013 4:43 pm Operator: VG
Sample : 123714.03 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082309.D Vial: 9
Acq On : 23 Aug 2013 5:32 pm Operator: VG
Sample : 123714.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:44 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	174632	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	176443	9.73	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.34%			
4) SS 4-BFB_MS	11.64	95	65110	10.03	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.27%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	59	0.081	ug/L	92

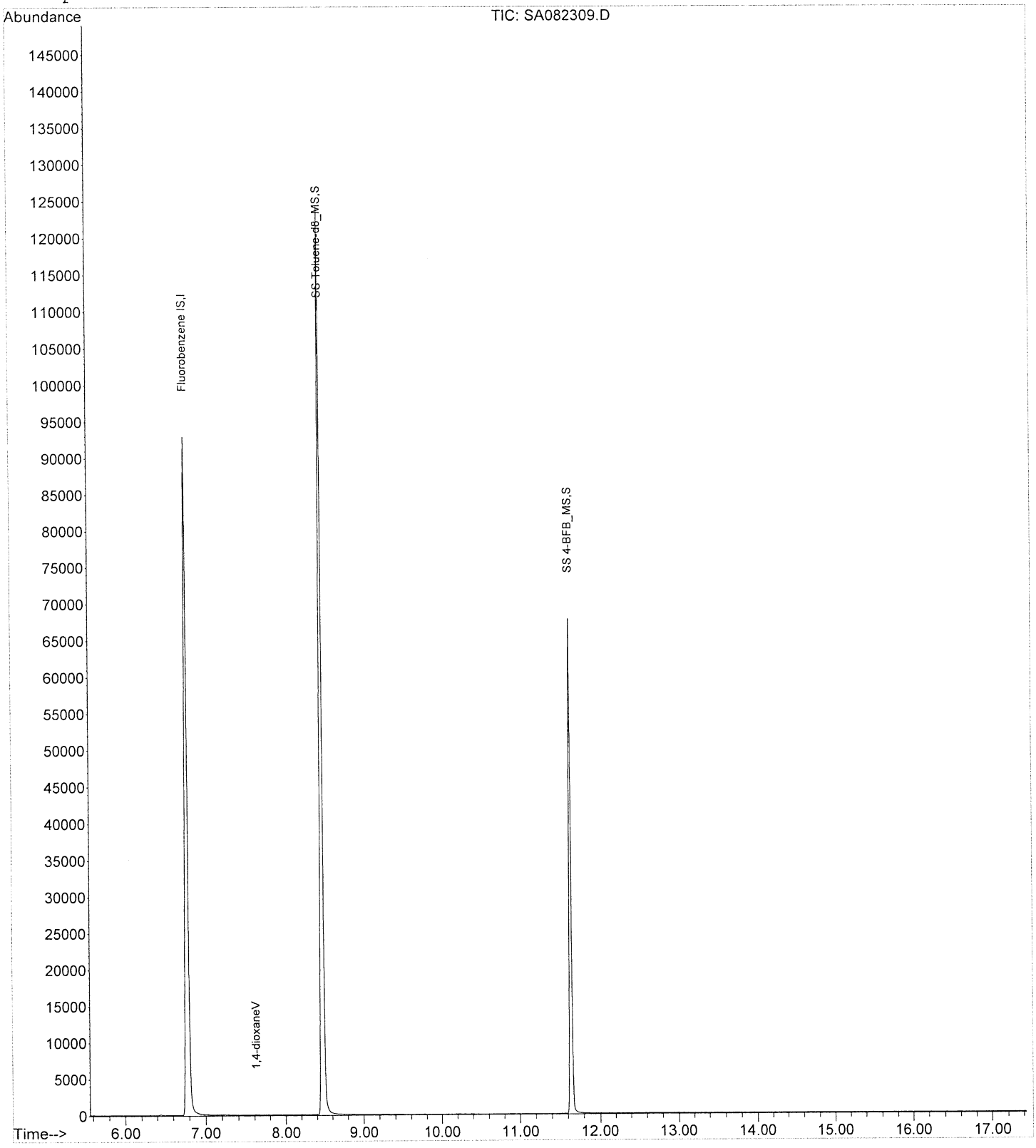
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082309.D Vial: 9
Acq On : 23 Aug 2013 5:32 pm Operator: VG
Sample : 123714.04 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 6:21 pm Operator: VG
Sample : 123714.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:47 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	172534	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167118	9.33	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.31%			
4) SS 4-BFB_MS	11.64	95	63950	9.97	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.68%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	8	0.011	ug/L	77

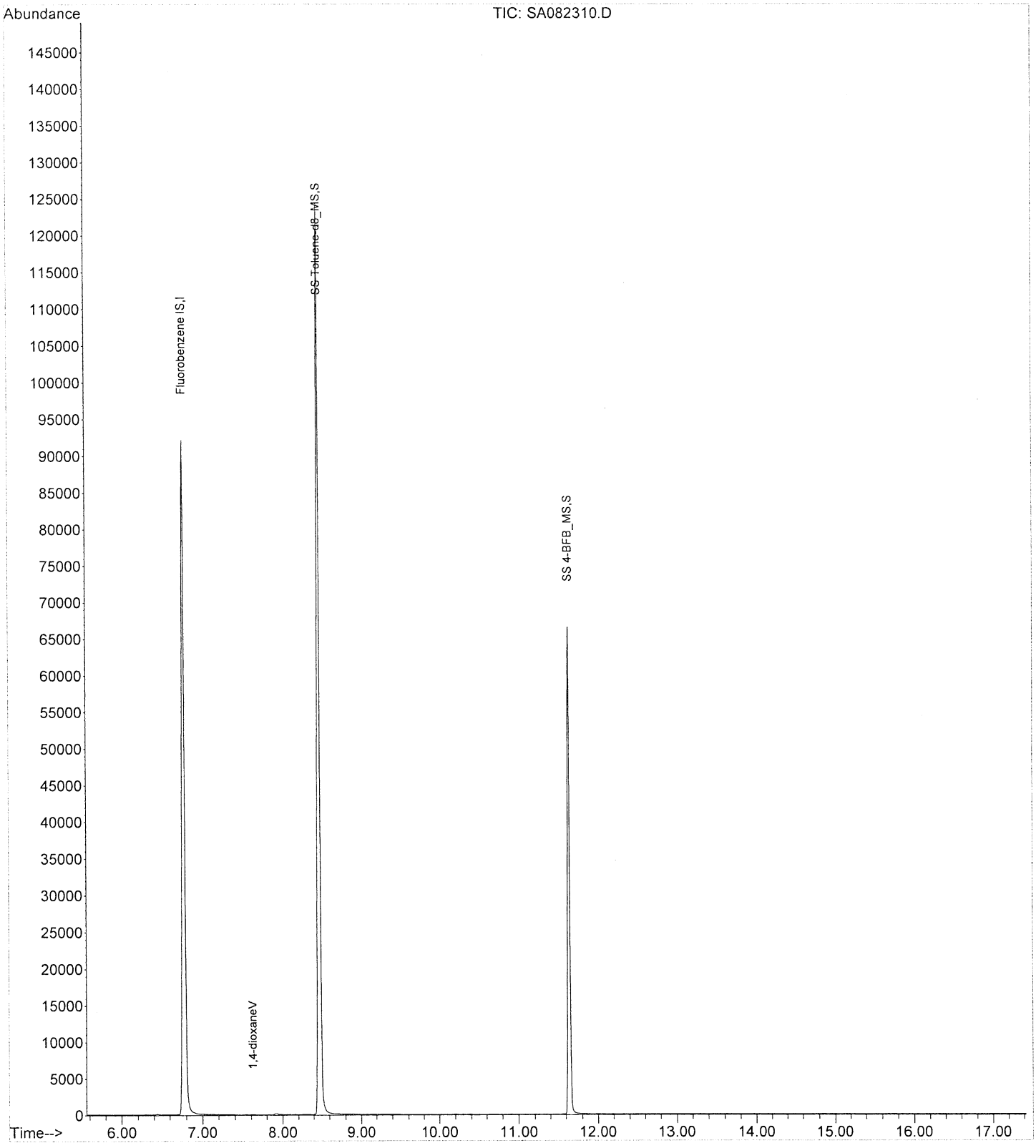
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082310.D Vial: 10
Acq On : 23 Aug 2013 6:21 pm Operator: VG
Sample : 123714.05 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 7:10 pm Operator: VG
Sample : 123714.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:50 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	168003	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	161685	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%			
4) SS 4-BFB_MS	11.63	95	63083	10.10	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.98%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	13	0.018	ug/L	98

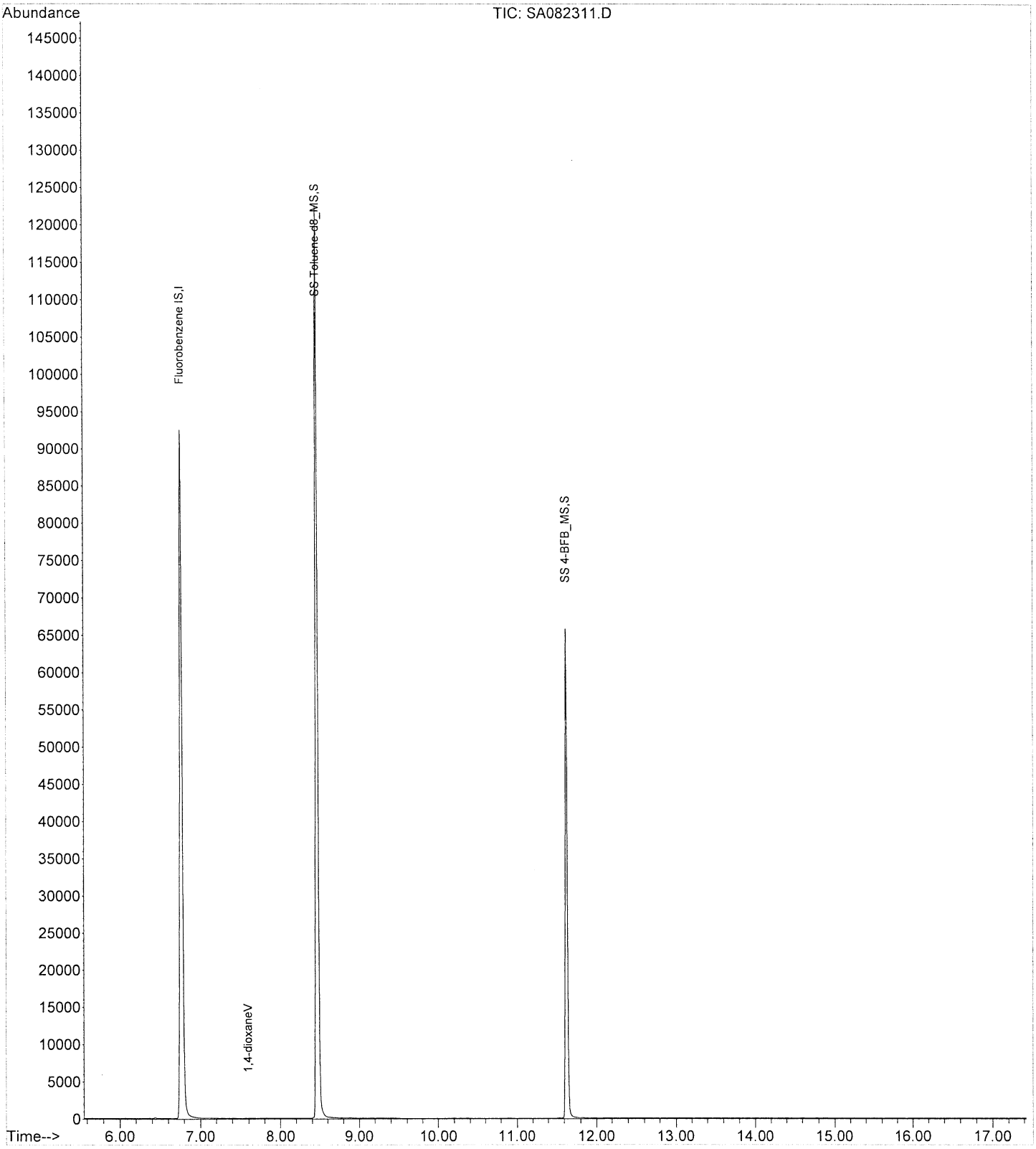
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082311.D 2SIM0510.M Mon Aug 26 08:30:50 2013

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082311.D Vial: 11
Acq On : 23 Aug 2013 7:10 pm Operator: VG
Sample : 123714.06 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082312.D Vial: 12
Acq On : 23 Aug 2013 8:00 pm Operator: VG
Sample : 123714.07 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:53 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	156145	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	159808	9.86	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.60%		
4) SS 4-BFB_MS		11.63	95	59720	10.29	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	102.86%		

Target Compounds Qvalue

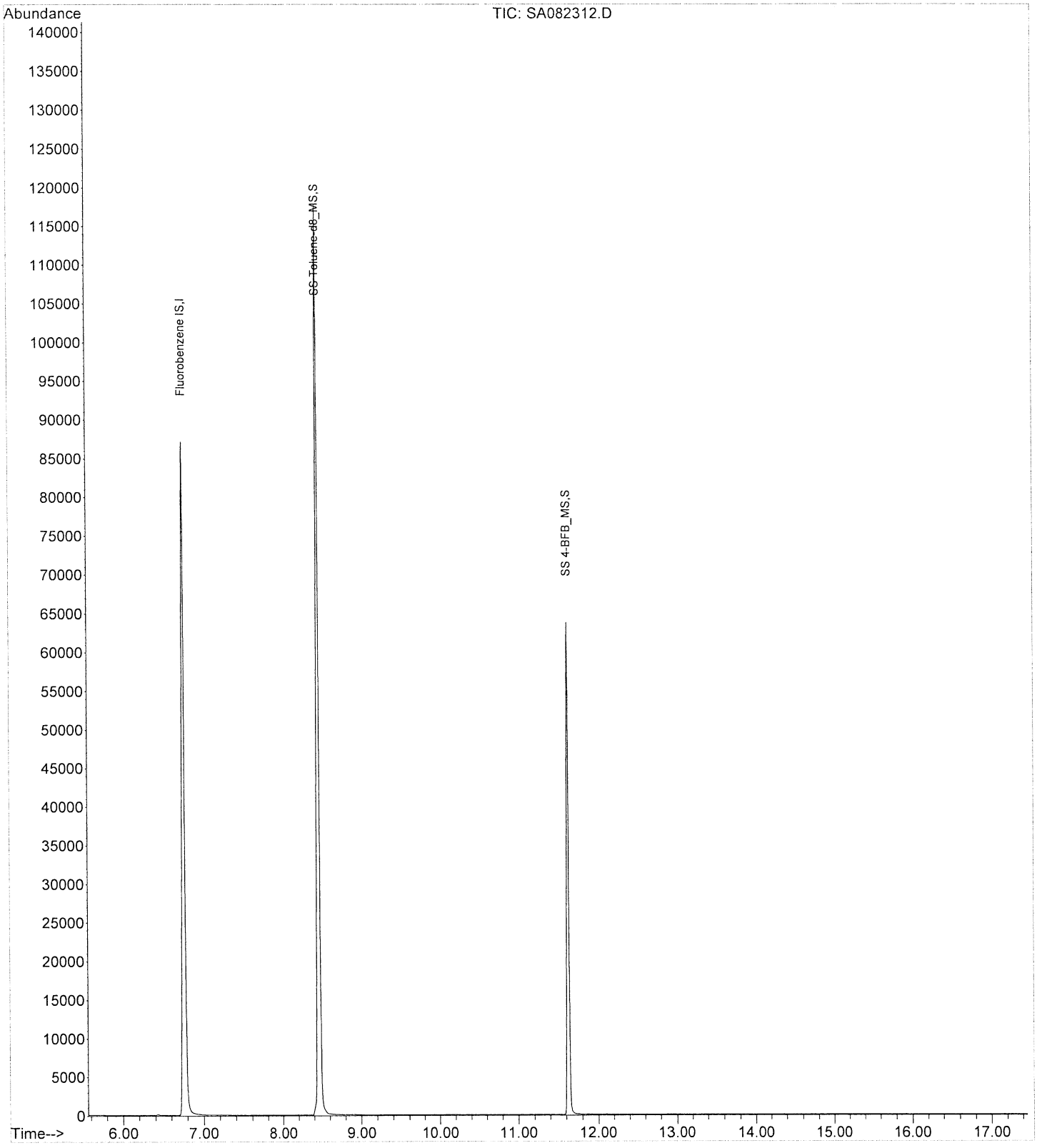
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082312.D Vial: 12
Acq On : 23 Aug 2013 8:00 pm Operator: VG
Sample : 123714.07 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:28 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 8:51 pm Operator: VG
Sample : 123714.08 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:56 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

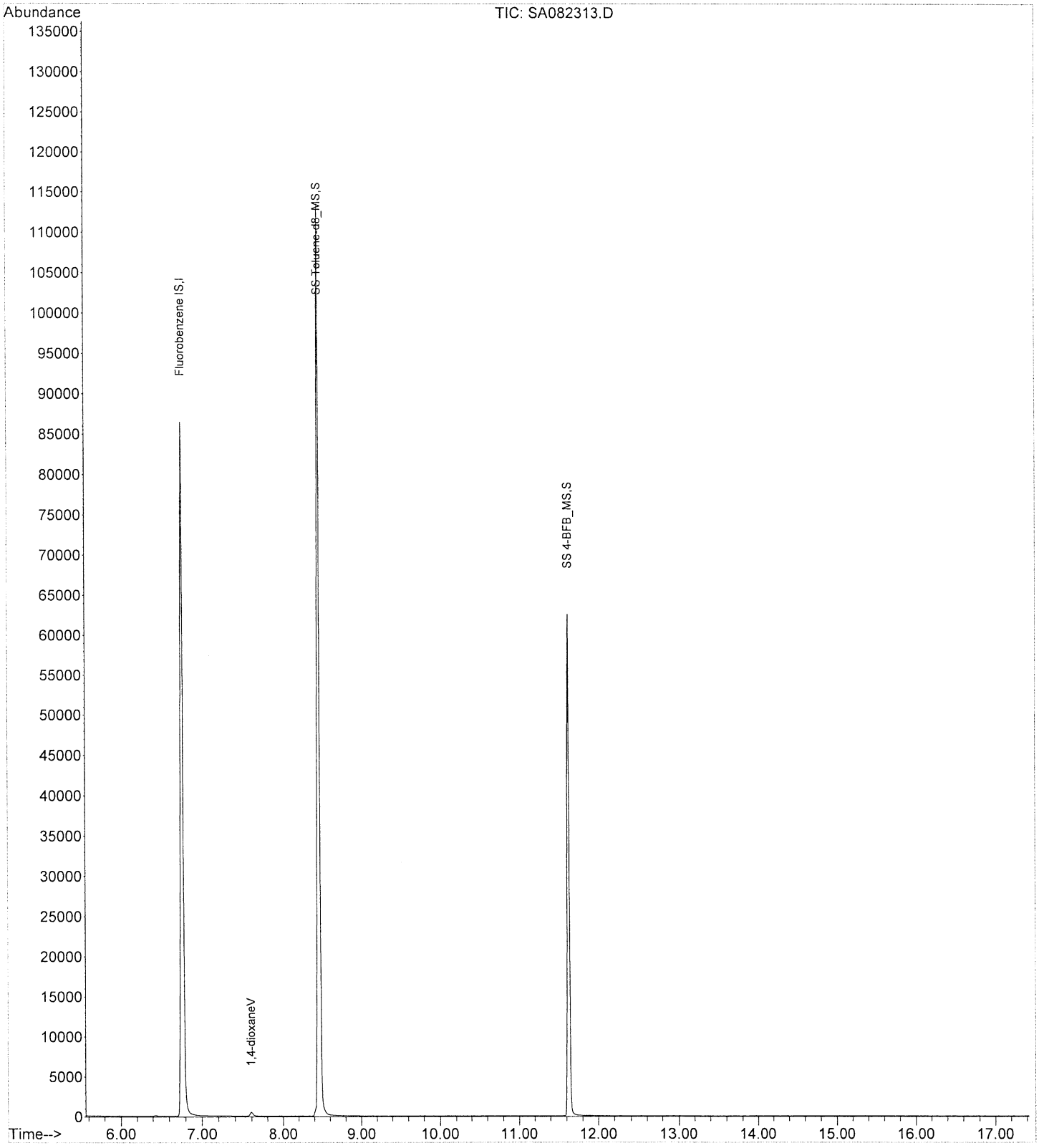
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156350	10.000 ug/L	-0.02
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	156512	9.64 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.44%		
4) SS 4-BFB_MS	11.63	95	59004	10.15 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.49%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.60	88	797	1.215 ug/L	81

8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082313.D Vial: 13
Acq On : 23 Aug 2013 8:51 pm Operator: VG
Sample : 123714.08 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082314.D Vial: 14
Acq On : 23 Aug 2013 9:42 pm Operator: VG
Sample : 123714.09 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:30:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	158402	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	153872	9.36	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.58%			
4) SS 4-BFB_MS	11.62	95	60613	10.29	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.91%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	874	1.315	ug/L	76

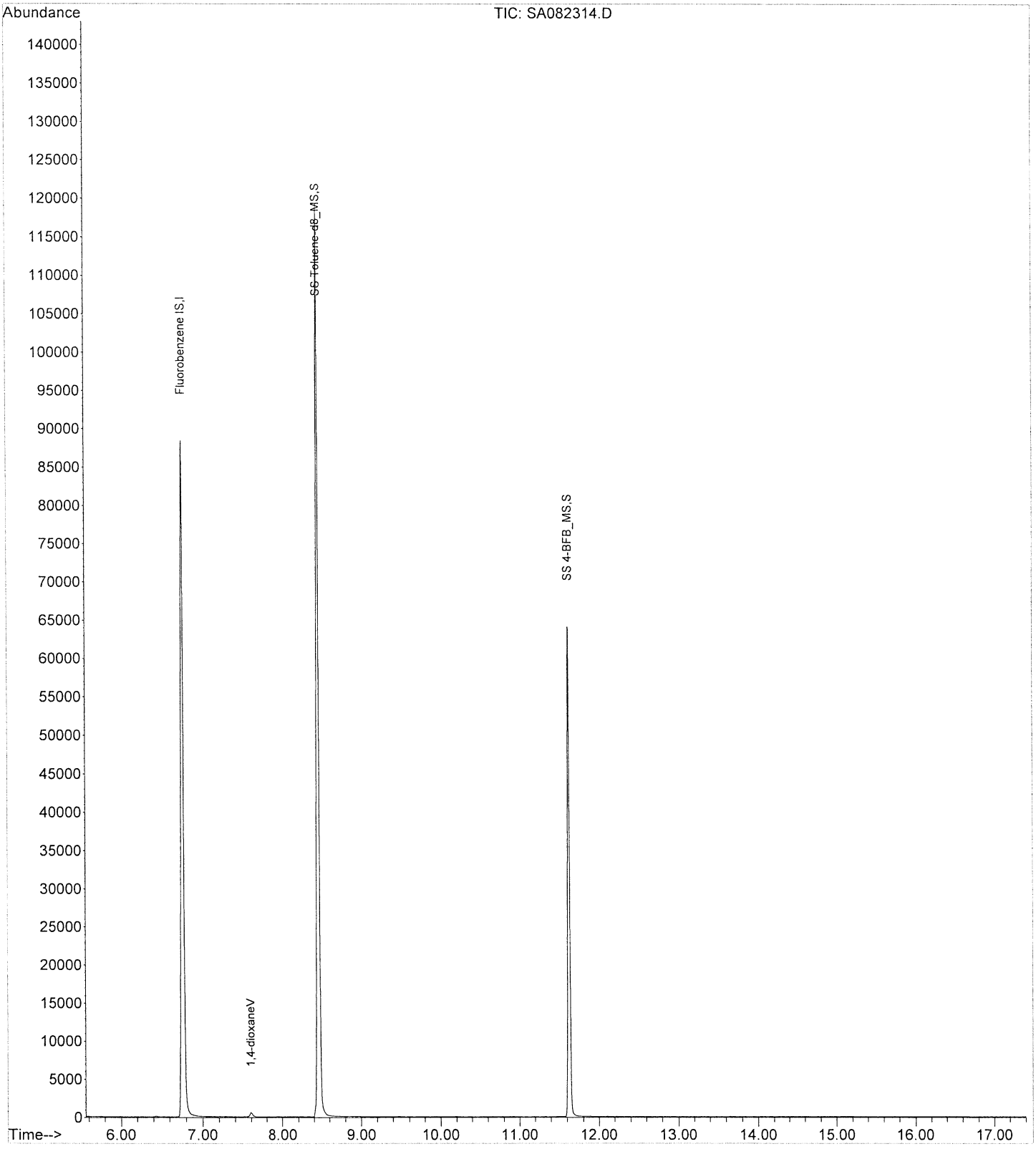
8/30/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082314.D 2SIM0510.M Mon Aug 26 08:30:59 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082314.D Vial: 14
Acq On : 23 Aug 2013 9:42 pm Operator: VG
Sample : 123714.09 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082315.D Vial: 15
Acq On : 23 Aug 2013 10:33 pm Operator: VG
Sample : 123714.10 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:02 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	157731	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	153777	9.39	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.92%			
4) SS 4-BFB_MS	11.62	95	61066	10.41	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.12%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	1204	1.819	ug/L	79

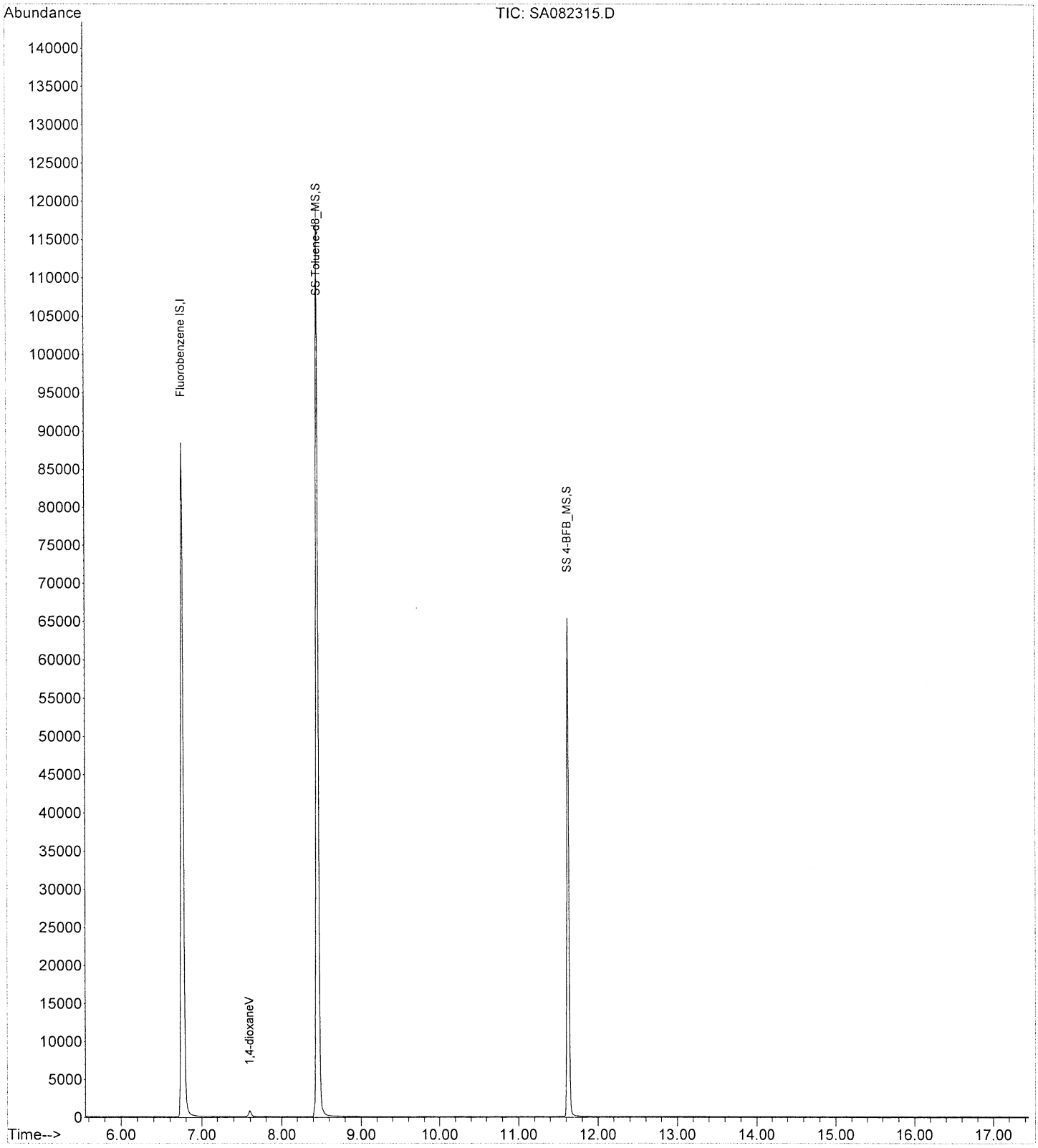
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082315.D 2SIM0510.M Mon Aug 26 08:31:02 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082315.D Vial: 15
Acq On : 23 Aug 2013 10:33 pm Operator: VG
Sample : 123714.10 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082316.D Vial: 16
Acq On : 23 Aug 2013 11:24 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:28:26 2013 Quant Results File: 2SIM0510.RES

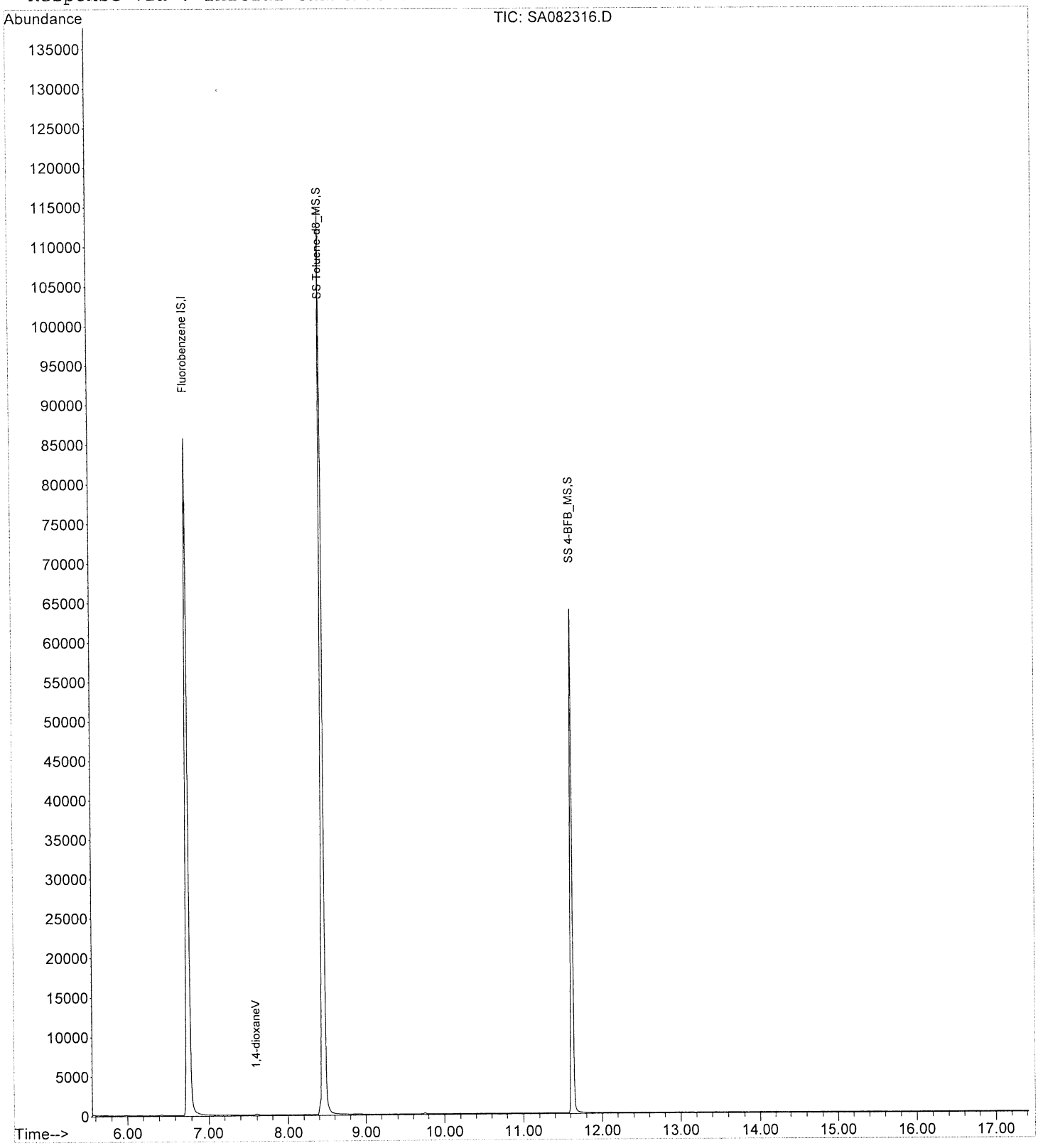
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	154775	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	158453	9.86	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.63%			
4) SS 4-BFB_MS	11.62	95	59695	10.37	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.73%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	211m	0.325	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082316.D Vial: 16
Acq On : 23 Aug 2013 11:24 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.

professional laboratory & drilling services

Steve Marcotte
Summit Environmental Consultants, Inc.
640 Main Street
Lewiston , ME 04240

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 123739
Client Identification: Coakley Landfill | 12-3173
Date Received: 8/20/2013

Dear Mr. Marcotte :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 9.3.13 Date | 256 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Temperature upon receipt (°C): 1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
123739.01	Trip Blank	8/20/13	8/6/13	aqueous		Adheres to Sample Acceptance Policy
123739.02	GW-AE-3B-38BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.03	GW-AE-3B-34BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.04	GW-AE-3B-30BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.05	GW-FPC-7A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.06	GW-FPC-7B-43BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.07	GW-FPC-7B-38BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.08	GW-FPC-7B-33BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.09	GW-FPC-5B-108BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.1	GW-FPC-5B-103BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.11	GW-FPC-5B-97BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.12	GW-FPC-5A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.13	GW-FPC-6A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.14	GW-FPC-6A-Dup-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.15	GW-AE-4A-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.16	GW-AE-4B-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.17	GW-FPC-4B-31BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.18	GW-FPC-4B-26BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.19	GW-FPC-4B-20BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.2	GW-FPC-6B-26BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.21	GW-FPC-6B-21BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy
123739.22	GW-FPC-6B-16BGS-0813	8/20/13	8/19/13	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

CASE NARRATIVE REPORT

EAI ID#: **123739**

Client Designation: **Coakley Landfill | 12-3173**

Samples Received on: **8/20/2013**

SAMPLE RECEIPT

All samples were stored and analyzed in accordance with all quality control and method requirements unless otherwise noted below.

Additional sample was received for location "GW-FPC-6A" for quality control requirements.

QUALITY CONTROL

All samples were analyzed as part of an analytical QC batch consisting of a method blank, a laboratory control sample (LCS), a matrix duplicate, a matrix spike (MS) and a matrix spike duplicate (MSD), where applicable. Any deviations from QC acceptance criteria are noted below, this includes sample preservation and holding time requirements.

Method References:
EPA SW-846 Update III

1,4 DIOXANE 8260B SIM

A LCS sample was analyzed in duplicate in fulfillment of accuracy quality control requirements.

All Quality Control criteria were met.

METALS

The LCS deviated high from acceptability criteria for antimony (Sb). Antimony was not detected above the reporting limit in samples.

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	Trip Blank	GW-AE-3B -38BGS-0813	GW-AE-3B -34BGS -0813	GW-AE-3B -30BGS-0813	GW-FPC-5B -108BGS -0813	GW-FPC-5B -103BGS -0813	GW-FPC-5B -97BGS -0813
Lab Sample ID:	123739.01	123739.02	123739.03	123739.04	123739.09	123739.1	123739.11
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/6/13	8/19/13	8/19/13	8/19/13	8/19/13	8/19/13	8/19/13
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13	8/20/13
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	8/24/13	8/24/13	8/24/13	8/24/13	8/24/13	8/24/13	8/24/13
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	10	10	10	10	10	10
1,4-Dioxane	< 0.25	**25**	**24**	**25**	**63**	**67**	**64**
4-Bromofluorobenzene (surr)	**105 %R**	**105 %R**	**105 %R**	**105 %R**	**105 %R**	**105 %R**	**105 %R**
Toluene-d8 (surr)	**94 %R**	**95 %R**	**99 %R**	**94 %R**	**95 %R**	**95 %R**	**95 %R**

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID: GW-FPC-5A-0813

Lab Sample ID:	123739.12
Matrix:	aqueous
Date Sampled:	8/19/13
Date Received:	8/20/13
Units:	ug/l
Date of Analysis:	8/24/13
Analyst:	VG
Method:	8260B SIM
Dilution Factor:	10

1,4-Dioxane	**29**
4-Bromofluorobenzene (surr)	**106 %R**
Toluene-d8 (surr)	**95 %R**

QC REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 0.25	5.3 (105 %R)	5.7 (114 %R) (8 RPD)	ug/l	8/24/13	70 - 130	20	8260B SIM
4-Bromofluorobenzene (surr)	105 %R	104 %R	105 %R	% Rec	8/24/13	70 - 130	50	8260B SIM
Toluene-d8 (surr)	94 %R	99 %R	94 %R	% Rec	8/24/13	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-FPC-7A-0813	GW-FPC-5A-0813	GW-FPC-6A-0813	GW-FPC-6A-Dup-0813					
Lab Sample ID:	123739.05	123739.12	123739.13	123739.14					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/19/13	8/19/13	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13					
Aluminum	< 0.05	**0.08**	< 0.05	< 0.05	AqTot	mg/L	8/21/13	200.8	DS
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Arsenic	< 0.001	**0.052**	**0.018**	**0.018**	AqTot	mg/L	8/21/13	200.8	DS
Barium	**0.003**	**0.10**	**0.037**	**0.036**	AqTot	mg/L	8/21/13	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Calcium	**11**	**38**	**28**	**27**	AqTot	mg/L	8/21/13	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Copper	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Cobalt	< 0.001	< 0.001	**0.006**	**0.006**	AqTot	mg/L	8/21/13	200.8	DS
Iron	< 0.05	**7.9**	**2.7**	**2.6**	AqTot	mg/L	8/21/13	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Magnesium	**3.3**	**19**	**12**	**12**	AqTot	mg/L	8/21/13	200.8	DS
Manganese	< 0.005	**0.11**	**2.3**	**2.2**	AqTot	mg/L	8/21/13	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS
Nickel	**0.003**	**0.006**	**0.005**	**0.004**	AqTot	mg/L	8/21/13	200.8	DS
Potassium	**1.7**	**18**	**6.9**	**6.6**	AqTot	mg/L	8/21/13	200.8	DS
Selenium	< 0.001	**0.004**	**0.003**	**0.003**	AqTot	mg/L	8/21/13	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Sodium	**7**	**90**	**82**	**81**	AqTot	mg/L	8/21/13	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS
Vanadium	< 0.005	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS
Zinc	< 0.005	< 0.005	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-AE-4A-0813	GW-AE-4B -0813						
Lab Sample ID:	123739.15	123739.16						
Matrix:	aqueous	aqueous						
Date Sampled:	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**	
Date Received:	8/20/13	8/20/13						
Aluminum	< 0.05	**0.10**	AqTot	mg/L	8/21/13	200.8	DS	
Antimony	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Arsenic	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Barium	**0.011**	**0.007**	AqTot	mg/L	8/21/13	200.8	DS	
Beryllium	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Calcium	**5.7**	**5.9**	AqTot	mg/L	8/21/13	200.8	DS	
Cadmium	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Chromium	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Copper	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Cobalt	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Iron	**2.0**	< 0.05	AqTot	mg/L	8/21/13	200.8	DS	
Lead	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Magnesium	**4.8**	**4.3**	AqTot	mg/L	8/21/13	200.8	DS	
Manganese	**0.38**	**0.008**	AqTot	mg/L	8/21/13	200.8	DS	
Mercury	< 0.0001	< 0.0001	AqTot	mg/L	8/21/13	200.8	DS	
Nickel	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Potassium	**2.0**	**2.9**	AqTot	mg/L	8/21/13	200.8	DS	
Selenium	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Silver	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Sodium	**7**	**13**	AqTot	mg/L	8/21/13	200.8	DS	
Thallium	< 0.001	< 0.001	AqTot	mg/L	8/21/13	200.8	DS	
Vanadium	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS	
Zinc	< 0.005	< 0.005	AqTot	mg/L	8/21/13	200.8	DS	

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-AE-3B-38BGS-0813	GW-AE-3B-34BGS-0813	GW-AE-3B-30BGS-0813	GW-FPC-7B-43BGS-0813					
Lab Sample ID:	123739.02	123739.03	123739.04	123739.06					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/19/13	8/19/13	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13					
Arsenic	**0.069**	**0.045**	**0.031**	< 0.001	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.45**	**0.35**	**0.33**	**0.40**	AqTot	mg/L	8/22/13	200.8	DS

Sample ID:	GW-FPC-7B-38BGS-0813	GW-FPC-7B-33BGS-0813	GW-FPC-5B-108BGS-0813	GW-FPC-5B-103BGS-0813					
Lab Sample ID:	123739.07	123739.08	123739.09	123739.1					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/19/13	8/19/13	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13					
Arsenic	**0.005**	**0.003**	**0.003**	**0.003**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**1.1**	**0.57**	**0.054**	**0.053**	AqTot	mg/L	8/22/13	200.8	DS

LABORATORY REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants, Inc.**

Client Designation: **Coakley Landfill | 12-3173**

Sample ID:	GW-FPC-5B -97BGS-0813	GW-FPC-4B -31BGS-0813	GW-FPC-4B -26BGS -0813	GW-FPC-4B -20BGS -0813					
Lab Sample ID:	123739.11	123739.17	123739.18	123739.19					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	8/19/13	8/19/13	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/20/13	8/20/13	8/20/13	8/20/13					
Arsenic	**0.003**	< 0.001	< 0.001	< 0.001	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.058**	**0.046**	**0.028**	**0.025**	AqTot	mg/L	8/22/13	200.8	DS

Sample ID:	GW-FPC-6B -26BGS-0813	GW-FPC-6B -21BGS-0813	GW-FPC-6B -16BGS -0813					
Lab Sample ID:	123739.2	123739.21	123739.22					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	8/19/13	8/19/13	8/19/13	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/20/13	8/20/13	8/20/13					
Arsenic	**0.002**	**0.002**	**0.003**	AqTot	mg/L	8/22/13	200.8	DS
Manganese	**0.37**	**0.36**	**0.38**	AqTot	mg/L	8/22/13	200.8	DS

QC REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	< 0.05	11 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Antimony	< 0.001	1.2 (118 %R)		mg/L	8/21/13	85 - 115	20	200.8
Arsenic	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Barium	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Beryllium	< 0.001	1.1 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8
Calcium	< 0.05	11 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cadmium	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Chromium	< 0.001	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Copper	< 0.001	0.91 (91 %R)		mg/L	8/21/13	85 - 115	20	200.8
Cobalt	< 0.001	0.95 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Iron	< 0.05	11 (99 %R)		mg/L	8/21/13	85 - 115	20	200.8
Lead	< 0.001	1.0 (101 %R)		mg/L	8/21/13	85 - 115	20	200.8
Magnesium	< 0.05	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Manganese	< 0.005	0.96 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8
Nickel	< 0.001	0.94 (94 %R)		mg/L	8/21/13	85 - 115	20	200.8
Potassium	< 0.05	10 (95 %R)		mg/L	8/21/13	85 - 115	20	200.8
Selenium	< 0.001	1.0 (103 %R)		mg/L	8/21/13	85 - 115	20	200.8
Silver	< 0.001	0.11 (108 %R)		mg/L	8/21/13	85 - 115	20	200.8
Sodium	< 5	11 (96 %R)		mg/L	8/21/13	85 - 115	20	200.8
Thallium	< 0.001	1.0 (102 %R)		mg/L	8/21/13	85 - 115	20	200.8
Vanadium	< 0.005	1.0 (100 %R)		mg/L	8/21/13	85 - 115	20	200.8
Zinc	< 0.005	1.1 (106 %R)		mg/L	8/21/13	85 - 115	20	200.8

The laboratory control sample for Antimony did not meet the acceptance criteria. The high bias has no impact on the data reported as no Antimony was found in any of the samples.

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Aluminum	123739.13	< 0.05	9.9 (90 %R)	9.9 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Antimony	123739.13	< 0.001	1.2 (119 %R)	1.2 (119 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Arsenic	123739.13	0.018	1.0 (101 %R)	1.0 (101 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Barium	123739.13	0.037	1.0 (98 %R)	1.0 (100 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Beryllium	123739.13	< 0.001	0.93 (93 %R)	0.94 (94 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Calcium	123739.13	28	37 (87 %R)	38 (88 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Cadmium	123739.13	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Chromium	123739.13	< 0.001	0.88 (88 %R)	0.88 (88 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Copper	123739.13	< 0.001	0.78 (78 %R)	0.78 (78 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Cobalt	123739.13	0.006	0.85 (85 %R)	0.86 (85 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Iron	123739.13	2.7	13 (90 %R)	13 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Lead	123739.13	< 0.001	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Magnesium	123739.13	12	21 (80 %R)	21 (83 %R) (4 RPD)	mg/L	8/21/13	70-130	20	200.8
Manganese	123739.13	2.3	3.1 (85 %R)	3.2 (93 %R) (9 RPD)	mg/L	8/21/13	70-130	20	200.8
Mercury	123739.13	< 0.0001	0.0010 (101 %R)	0.0010 (104 %R) (3 RPD)	mg/L	8/21/13	70-130	20	200.8
Nickel	123739.13	0.005	0.84 (83 %R)	0.84 (83 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8
Potassium	123739.13	6.9	16 (84 %R)	16 (83 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Selenium	123739.13	0.003	1.0 (102 %R)	1.0 (101 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Silver	123739.13	< 0.001	0.82 (82 %R)	0.83 (83 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Sodium	123739.13	82	92 (88 %R)	93 (105 %R) (18 RPD)	mg/L	8/21/13	70-130	20	200.8
Thallium	123739.13	< 0.001	0.97 (97 %R)	0.99 (99 %R) (2 RPD)	mg/L	8/21/13	70-130	20	200.8
Vanadium	123739.13	< 0.005	0.92 (92 %R)	0.91 (91 %R) (1 RPD)	mg/L	8/21/13	70-130	20	200.8
Zinc	123739.13	< 0.005	0.90 (90 %R)	0.90 (90 %R) (0 RPD)	mg/L	8/21/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

QC REPORT

EAI ID#: **123739**

Client: **Summit Environmental Consultants**

Client Designation: **Coakley Landfill | 12-3173**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.001	1.0 (101 %R)		mg/L	8/22/13	85 - 115	20	200.8
Manganese	< 0.005	0.95 (95 %R)		mg/L	8/22/13	85 - 115	20	200.8

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	123739.03	0.045	1.1 (101 %R)	1.1 (101 %R) (0 RPD)	mg/L	8/22/13	70-130	20	200.8
Manganese	123739.03	0.35	1.1 (80 %R)	1.2 (82 %R) (2 RPD)	mg/L	8/22/13	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 3

Chain-of-Custody Record

123739

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX 524.2 MTBE only	VOC: 8260B 624 VTICs 1, 4 Dioxane	VOC: 8021B BTEX Halos	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 LI L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other: TAL As/Mn	Other: 1,4 Dioxane	Other: TAL metals	# of Containers	Notes MeOH Vial #
TRIP BLANK	8/19/13 0748	GW	G																									X		2
GW-AE3B-30B6S-0813	8/19/13 0748																											X	X	4
GW-AE3B-34B6S-0813	8/19/13 0801																											X	X	4
GW-AE3B-30B6S-0813	8/19/13 0815																											X	X	4
GW-FRC-7A-0813	8/19/13 0948																												X	2
GW-FRC-7B-43B6S-0813	8/19/13 0927 (SM) ~~0807~~ 0927																											X		4
GW-FRC-7B-38B6S-0813	8/19/13 0946																											X		4
GW-FRC-7B-33B6S-0813	8/19/13 1008																											X		4
GW-FRC-5D-108B6S-0813	8/19/13 1135																											X	X	4
GW-FRC-5B-103B6S-0813	8/19/13 1202																											X	X	4
Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water																												N	X	N
Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH																														

Project Manager: Steve Marcotte

Company: Summit Env. Consultants.

Address: 640 Main Street

City: Lewiston State: ME Zip: 04240

Phone: 207-795-6009 Ext.:

Fax:

E-Mail: smarcotte@summitenv.com

Site Name: CASELLA LANDFILL

Project #: 12-3173

State: (NH) MA ME VT Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other: Superfund

Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B (Special) C OR Presumptive Certainty

Reporting Options: Prelims: (Yes) or No — If Yes: Fax or (PDF)

Electronic Options: No Fax E-Mail (PDF) Equis

Temp. °C ICE? (Yes) No

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals: TAL metal (23 metals) + totals

Samples Field Filtered? ☐ Yes ☒ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

Sampler(s)	Relinquished By:	Date:	Time:	Received By:
Marcotte / Daniels.	Marcotte	8/20/13	1120	D.
	DD	8-20-13	14:05	
	Relinquished By:	Date:	Time:	Received By:
	Relinquished By:	Date:	Time:	Received By:

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
Professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(White: Original Green: Project Manager)

123739
C Level Package Data

Page 2 of 3

Chain-of-Custody Record

For 123739

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX	VOC: 524.2 MTBE only	VOC: 8260B 624 VTICs	VOC: 1, 4 Dioxane	VOC: 8021B BTEX Halos	VOC: 8015B GRO MAVPH	SVOC: 8270D 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015B DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_2 NO_3 NO_3NO_2	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other: 1,4 Dioxane	Other: As Mn Total	Other: TAL metals	# of Containers	Notes MeOH Vial #
GW-FPC-5B-971865-0813	8/19/13 1227	GW	G																									X	X		4	
GW-FPC-5A-0813	8/19/13 1240	GW	G																									X		X	4	
GW-FPC-6A-0813	8/19/13 1442																													X	2	
GW-FPC-6A-DUP-0813																														X	2	
GW-FPC-6A-MS-0813																														X	2	
GW-FPC-6A-MSD-0813																														X	2	
GW-AE-4A-0813	1748																													X	2	
GW-AE-4B-0813	1634																													X	2	
GW-FPC-4B-31865-0813	1618																												X	Sm	2	As/Mn only SM
GW-FPC-4B-26865-0813	1629																												X	Sm	2	As/Mn only SM
Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water																																
Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH																												X	N	N		

Project Manager: Steve Marcotte

Company: Summit Env. Consultants

Address: 640 Main Street

City: Lewiston State: ME Zip: 04240

Phone: 207-795-6009 Ext.:

Fax:

E-Mail: smarcotte@summitenv.com

Site Name: COAKLEY LANDFILL

Project #: 12-3173

State: NH MA ME VT Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other: Superfund.

Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B Special C OR

Presumptive Certainty

Reporting Options: Prelims: Yes or No; If Yes: Fax or PDF

Electronic Options: No Fax E-Mail PDF Equis

Temp. 1 °C

Ice? Yes No

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals: TAL metals 23 metals.

Samples Field Filtered? ☐ Yes ☒ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

Sampler(s): Marcotte / Daniels.

Relinquished By:	Date:	Time:	Received By:
[signature]	8/20/13	1120	[signature]
[signature]	8-20-13	1405	[signature]

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eailabs.com | www.eailabs.com

(WHITE: Original GREEN: Project Manager)

Page 3 of 3

CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 123739

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 8260B 624 VTICS 1, 4 DIOXANE; 8021B BTEX HALOS; 8015B GRO MAVPH	SVOC: 8270D 625 SVTICS EDB DBCP ABN A BN PAH; TPH8100 L1 L2; 8015B DRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. CON.; BR CL F SO_4 NO_2 NO_2NO_3; BOD CBOD T. ALK.; TKN NH_3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: TOTAL ASH	# OF CONTAINERS	NOTES MEOH VIAL #
GW-FR-4B-20B6S-08013	8/19/13 1639	GW	G								X	2
GW-FR-6B-26B6S-08013	1423	↓	↓								X	2
GW-FR-6B-21B6S-08013	1438										X	2
GW-FR-6B-16B6S-08013	1454	↓	↓								X	2

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

N

PROJECT MANAGER: Steve Marcotte

COMPANY: Summit Env. Consultants

ADDRESS: 640 Main Street

CITY: Lewiston STATE: ME ZIP: 04240

PHONE: 207-795-6009 EXT.:

FAX:

E-MAIL: smarcotte@summitenv.com

SITE NAME: COAKLEY LANDFILL

PROJECT #: 12-3173

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: Superfund

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B (SPECIAL) C OR PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS (YES) OR NO; IF YES: FAX OR (PDF)

ELECTRONIC OPTIONS: NO FAX E-MAIL (PDF) EQUIS

TEMP. 1 °C

ICE? (YES) NO

SAMPLER(S): Marcotte & Daniels

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	8/20/13	1120	D.S.
D.S.	8-20-13	14:05	[signature]

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☒ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory & drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

8260B SIM 1,4 Dioxane

Initial Calibration

IS/SS ID= V- 4061

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VB

Date: 5/10/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	Anal Meth	Comments	A
1	5A1S1001	BFB		✓		x1	VOC MSI			
2	2	STD0.25					VOC SIM			
3	3	0.5					VOC		NEW KAL	
4	4	1					VOC			
5	5	2					VOC		25IMDSID	
6	6	5					VOC			
7	7	10					VOC			
8	8	20					VOC			
9	9	50					VOC			
10	10	BFB					VOC MSI			
11	11	STD5					VOC SIM			
12	12	LCS5					VOC			
13	13	LCSD5					VOC			
14	14	Blank					VOC			
15	15	120614.17					VOC			
16	16	16					VOC			
17	17	14					VOC			
18	18	13					VOC			
19	19	10					VOC			
20	20	01					VOC			
21	21	04					VOC			
22	22	06					VOC			
23	23	09					VOC			
24	24	07					VOC			
25	25	BFB					VOC MSI			
26	26	STD5					VOC SIM			
27	27	LCS5					VOC			
28	28	LCSD5					VOC			
29	29	Blank					VOC			
30	30	120614.12					VOC			
31	31	11					VOC			
32	32	19					VOC			
33	33	20					VOC			
34	34	21					VOC			
35	35	17					VOC			
36	36	23					VOC			
37	37	24					VOC			
38	38	120711.02				✓	VOC			
39	39	01		✓		x100	VOC			
40							VOC			
41							VOC			
42							VOC			

Samples removed from autosampler, order verified by _____ 5/13/13

Response Factor Report VOAMS2

Method : 2SIM0510.M
Title : VOAMS2
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files

1	=	SA051004.D	20	=	SA051008.D
0.25	=	SA051002.D	10	=	SA051007.D
2	=	SA051005.D	5	=	SA051011.D
0.5	=	SA051003.D	50	=	SA051009.D

	Compound	1	20	10	50	0.25	5	2	0.5	AVG	%RSD	
1)	Fluorobenzene IS											
2)	1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.040	0.043	0.042	5.098	ok
3)	SS Toluene-d8_MS	1.019	1.010	0.999	1.066	1.055	1.054	1.043	1.058	1.038	2.424	ok
4)	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.365	0.372	0.372	1.332	ok

(#) = Out of Range

Response Factor Report VOAMS2

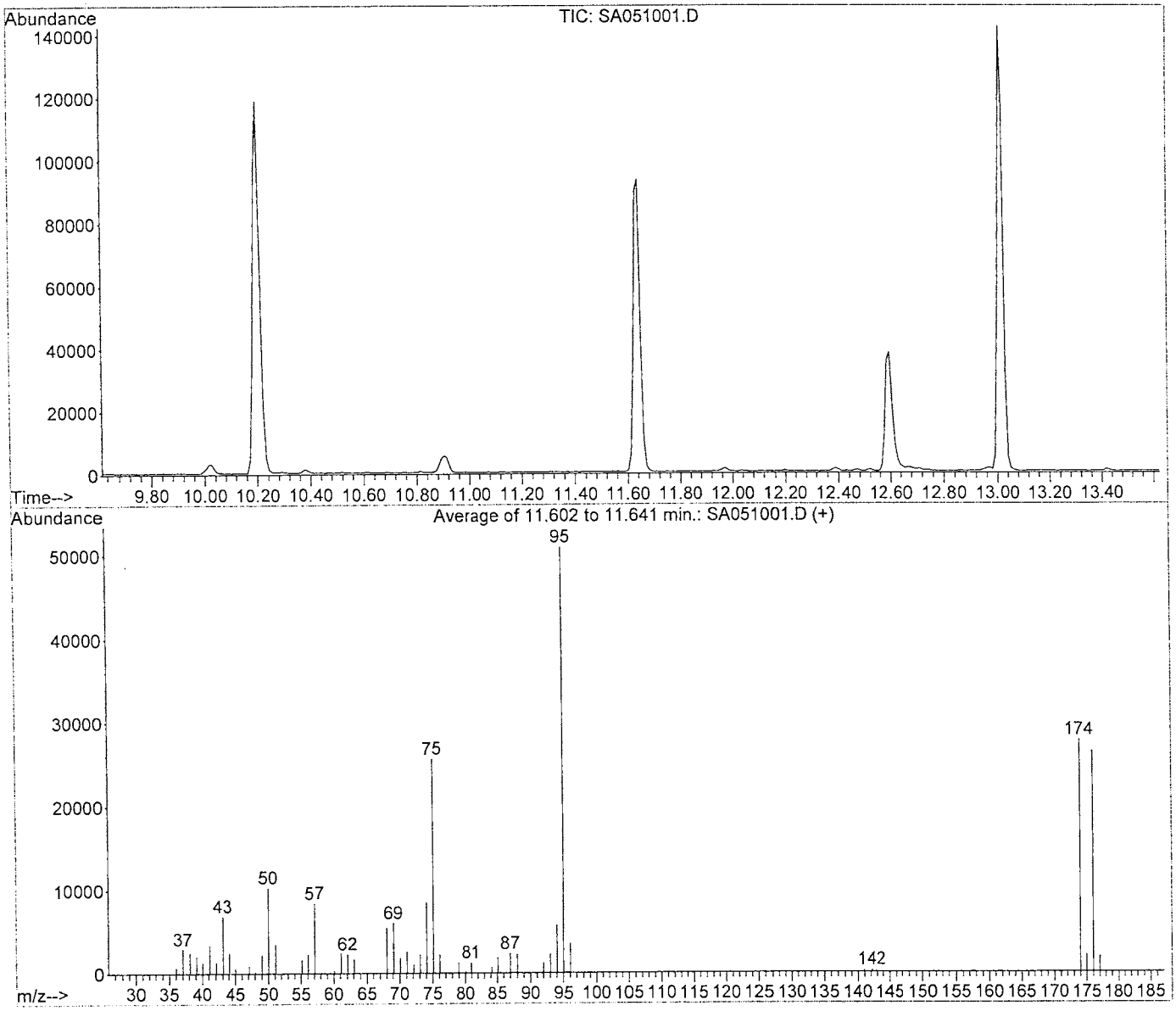
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration

Calibration Files
1 =SA051004.D 20 =SA051008.D 10 =SA051007.D
50 =SA051009.D .25 =SA051002.D 5 =SA051011.D

		Compound	1	20	10	50	.25	5	Avg	%RSD
1)	I	Fluorobenzene IS	ISTD							
2)		1,4-dioxaneV	0.040	0.044	0.039	0.043	0.044	0.042	0.042#	5.10
3)	S	SS Toluene-d8_M	1.019	1.010	0.999	1.066	1.055	1.054	1.038	2.42
4)	S	SS 4-BFB_MS	0.371	0.377	0.367	0.379	0.374	0.370	0.372	1.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051001.D Vial: 1
Acq On : 10 May 2013 1:42 pm Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.602 to 11.641 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10291	PASS
75	95	30	60	50.3	25618	PASS
95	95	100	100	100.0	50891	PASS
96	95	5	9	6.9	3526	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	54.4	27666	PASS
175	174	5	9	7.6	2090	PASS
176	174	95	101	95.1	26301	PASS
177	176	5	9	7.1	1863	PASS

SA051001.D 2SIM0510.M Wed Aug 21 13:48:25 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:52:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

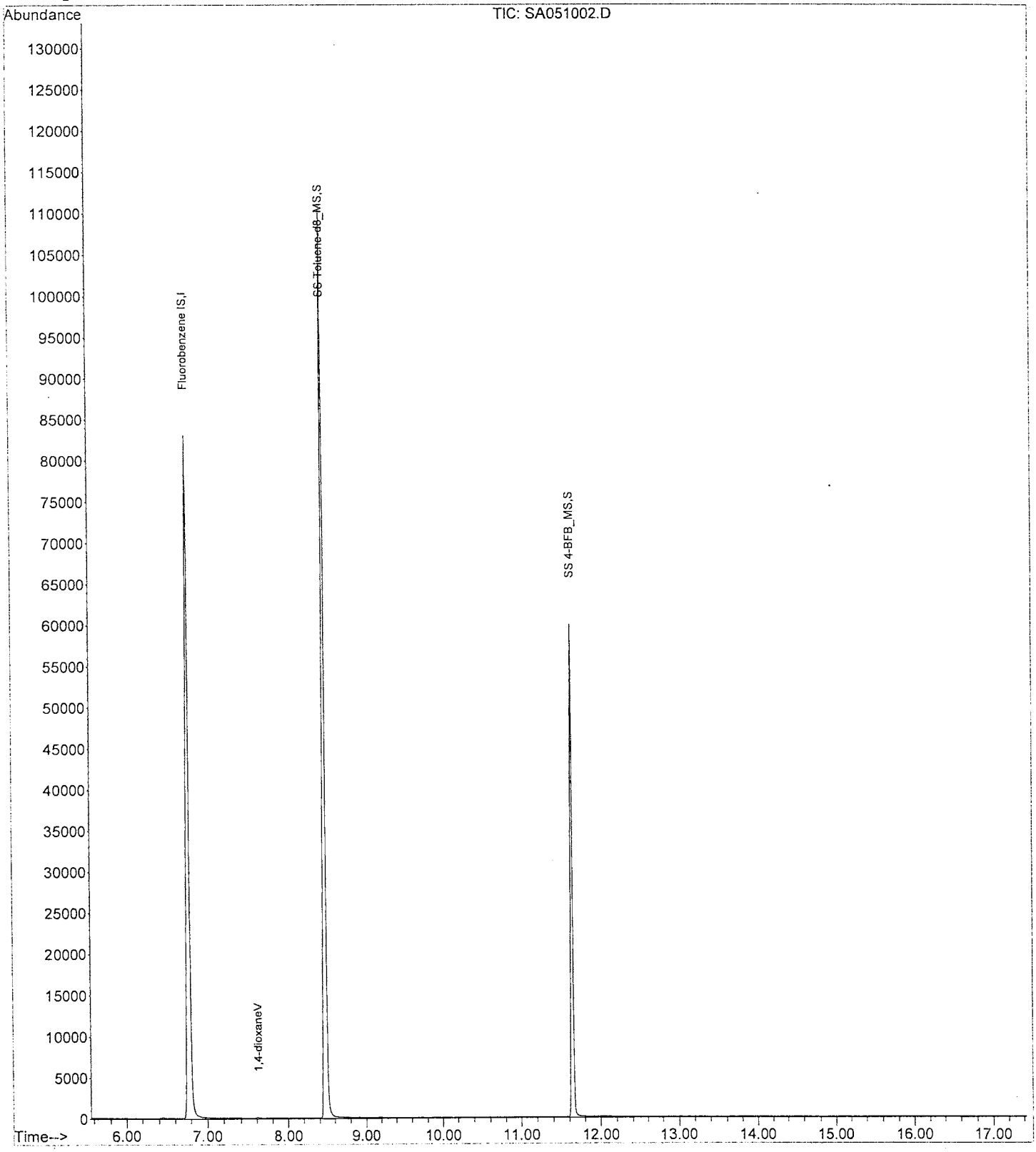
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	151729	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	160084	9.79	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
4) SS 4-BFB_MS	11.64	95	56746	10.12	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	167	0.355	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051002.D Vial: 2
Acq On : 10 May 2013 2:30 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 10 14:51 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:04 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

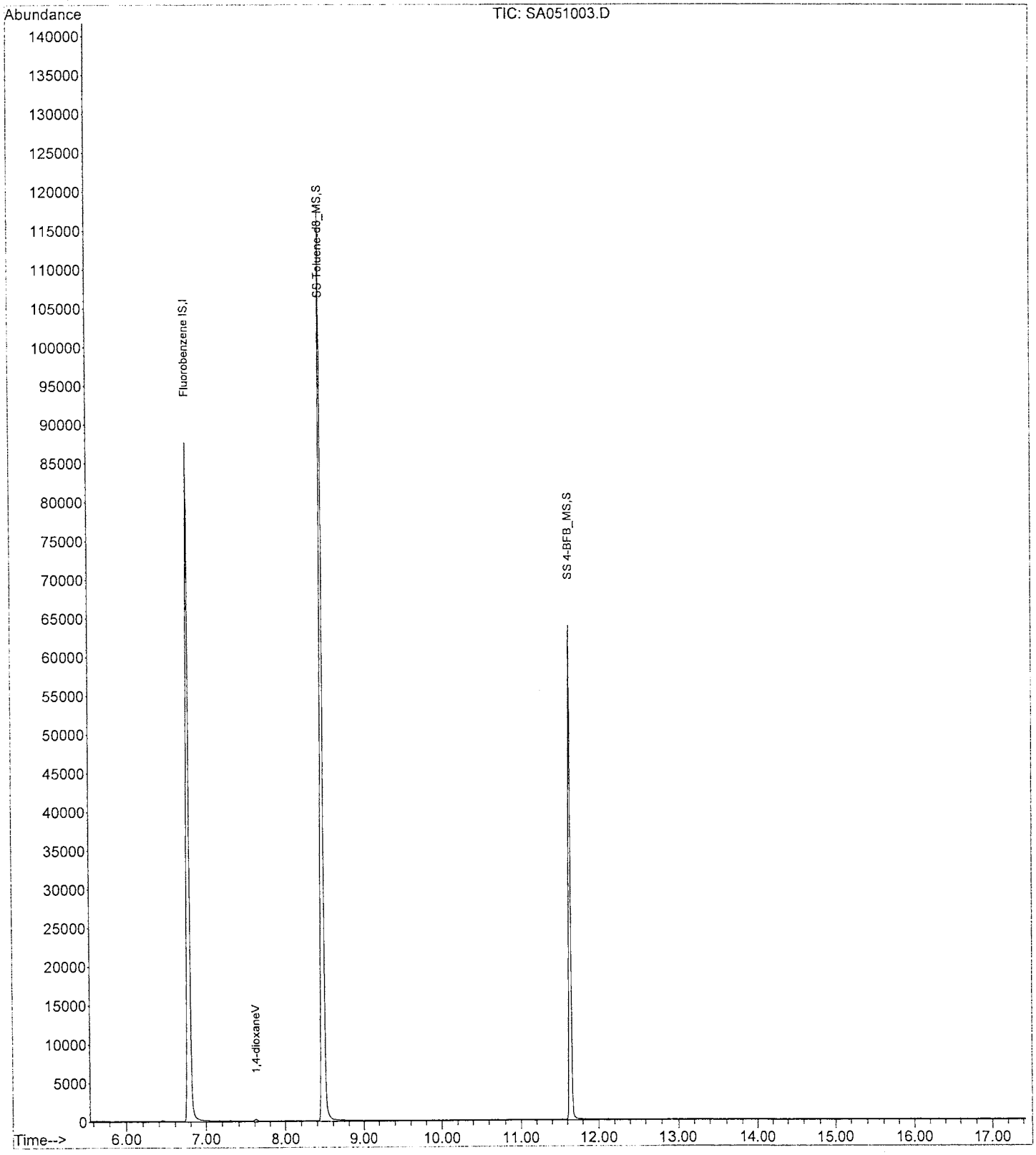
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	161195	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	170558	9.82	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.19%			
4) SS 4-BFB_MS	11.64	95	59943	10.06	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	349	0.698	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051003.D Vial: 3
Acq On : 10 May 2013 3:21 pm Operator: VG
Sample : STD0.5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:18 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

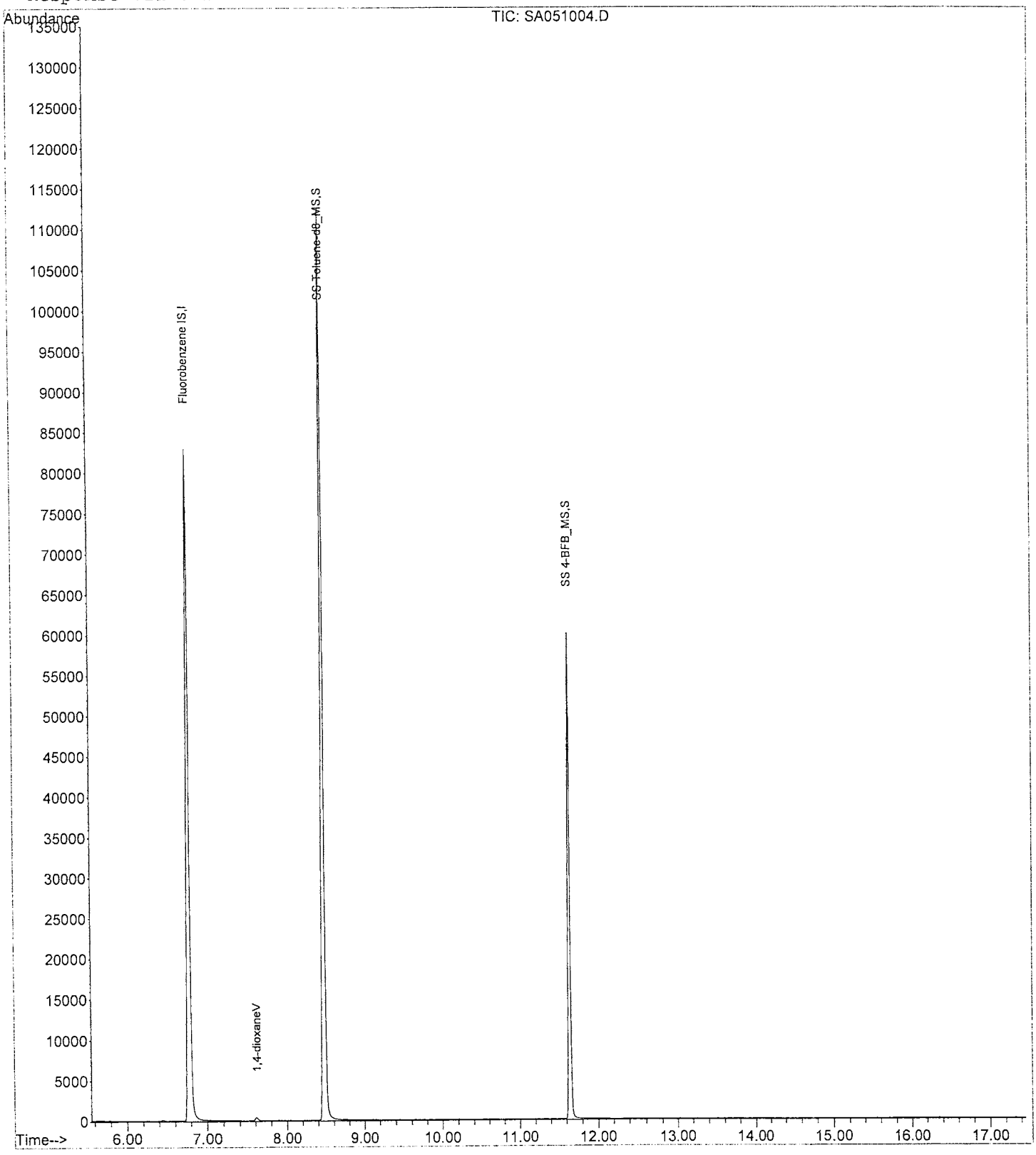
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	153530	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	156464	9.46	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.57%			
4) SS 4-BFB_MS	11.64	95	56944	10.04	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.62	88	613	1.287	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051004.D Vial: 4
Acq On : 10 May 2013 4:10 pm Operator: VG
Sample : STD1 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:44 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:32 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

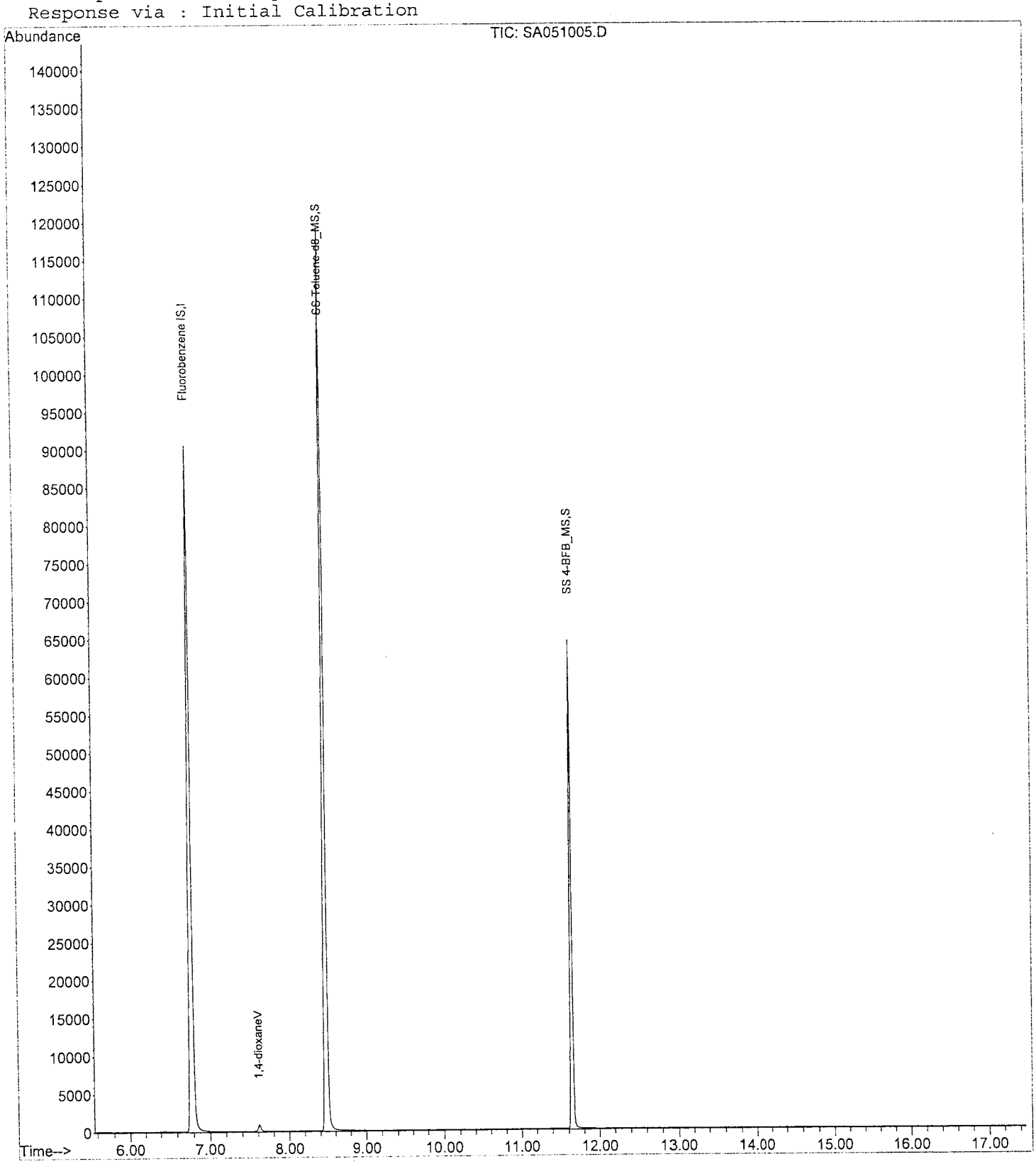
Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.78	96	163961	10.000	ug/L	0.00
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.47	98	170943	9.68	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	96.75%		
4) SS 4-BFB_MS		11.64	95	59771	9.87	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130		Recovery =	98.66%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.61	88	1305	2.565	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051005.D Vial: 5
Acq On : 10 May 2013 4:58 pm Operator: VG
Sample : STD2 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:45 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

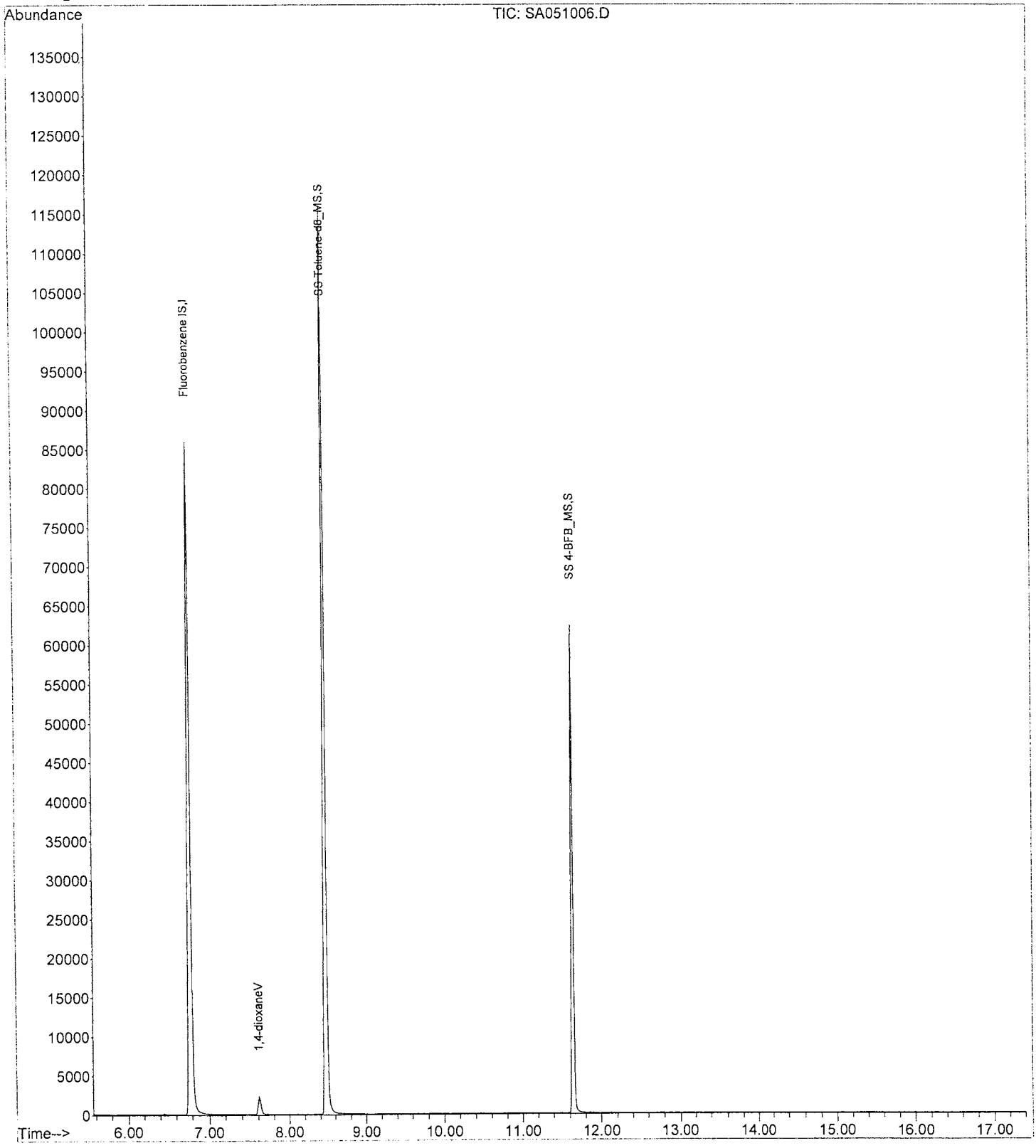
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	158757	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	167384	9.78	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.84%			
4) SS 4-BFB_MS	11.64	95	58776	10.02	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	3348	6.797	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051006.D Vial: 6
Acq On : 10 May 2013 5:46 pm Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:45:57 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

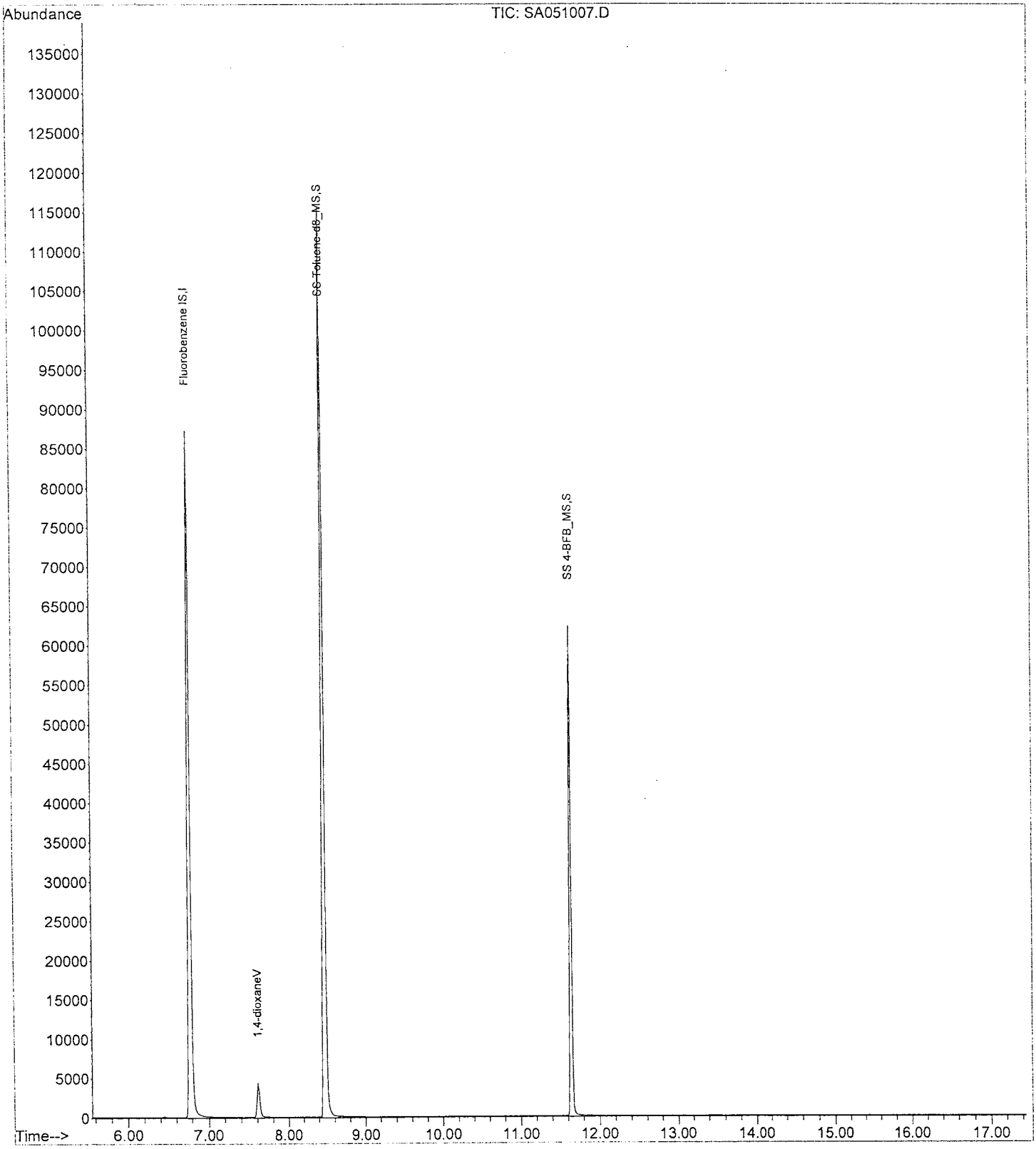
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	159800	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.47	98	159671	9.27	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.72%			
4) SS 4-BFB_MS	11.64	95	58595	9.92	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	6212	12.530	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051007.D Vial: 7
Acq On : 10 May 2013 6:35 pm Operator: VG
Sample : STD10 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:10 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

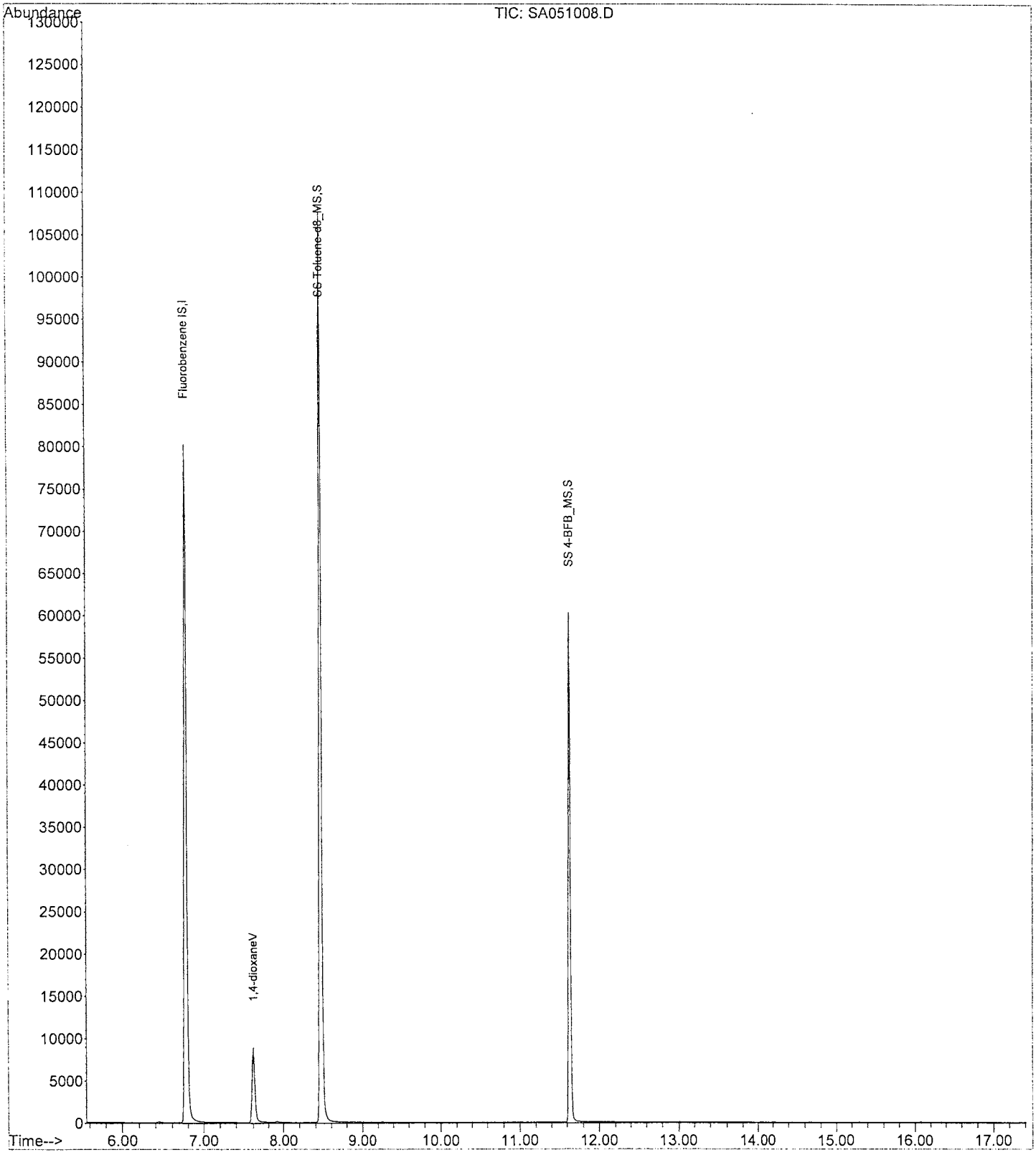
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.78	96	147586	10.000 ug/L	0.00
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.47	98	149017	9.37 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.70%		
4) SS 4-BFB_MS	11.64	95	55675	10.21 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.09%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.61	88	13107	28.625 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051008.D Vial: 8
Acq On : 10 May 2013 7:23 pm Operator: VG
Sample : STD20 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:46:22 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat Apr 13 08:28:19 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

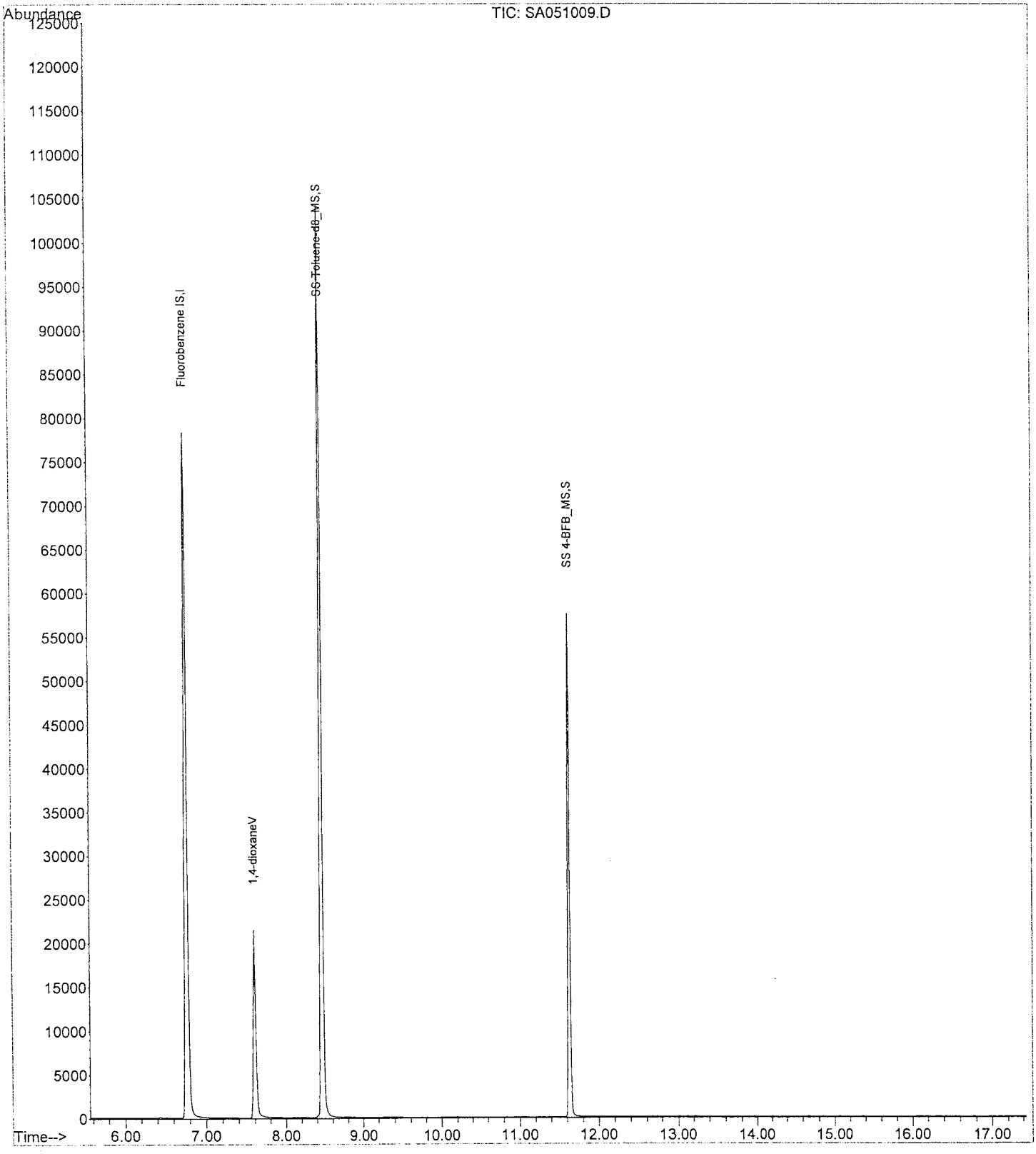
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	139613	10.000	ug/L	0.00
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	148830	9.89	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.93%			
4) SS 4-BFB_MS	11.63	95	52945	10.26	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.63%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	30178	69.671	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051009.D Vial: 9
Acq On : 10 May 2013 8:13 pm Operator: VG
Sample : STD50 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:45 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 08:53:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:51:40 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

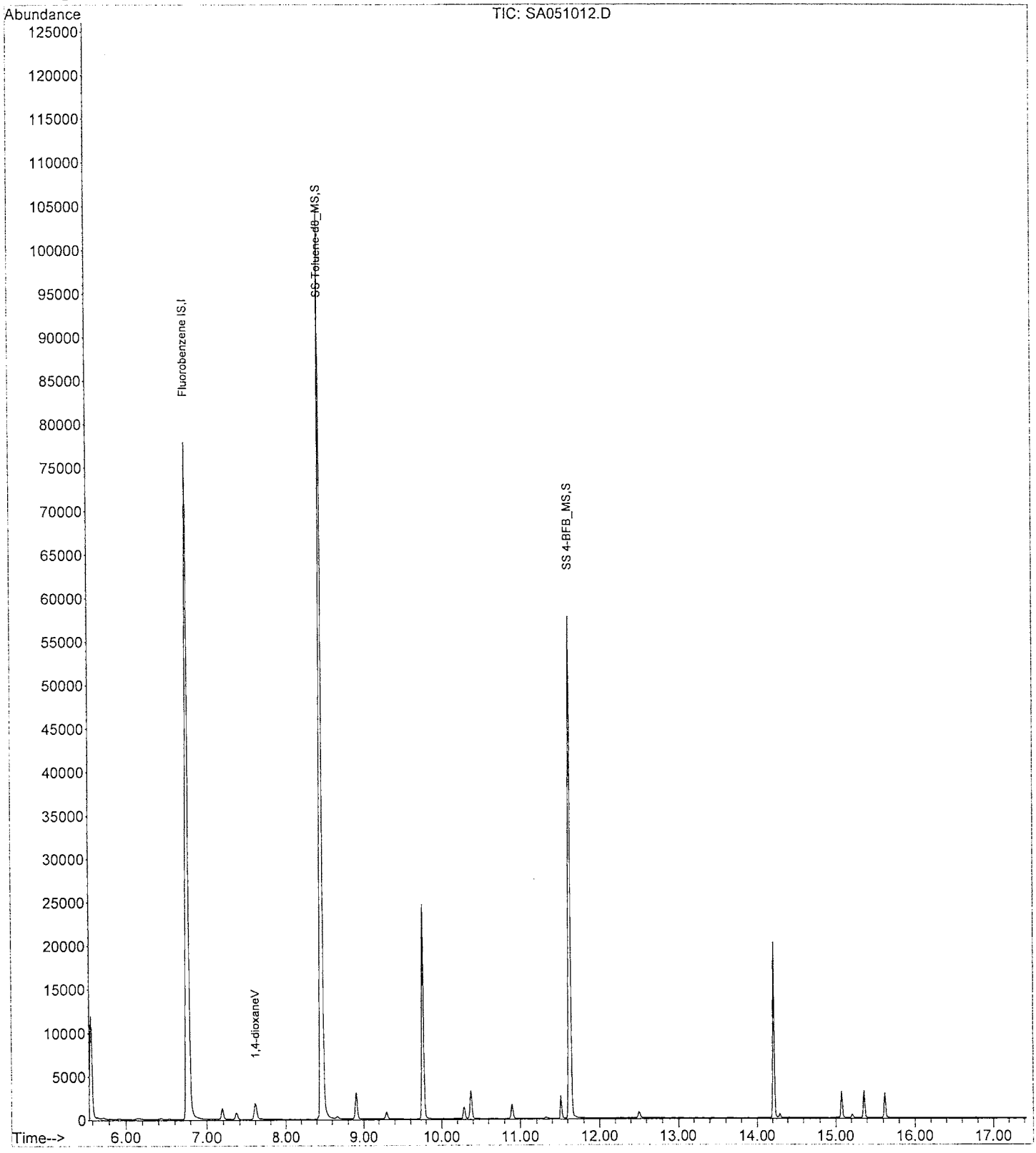
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.77	96	137375	10.000	ug/L	-0.01
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	141367	9.91	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%			
4) SS 4-BFB_MS	11.63	95	52679	10.31	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	2634	4.569	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\MAY13\MAY1013\SA051012.D Vial: 12
Acq On : 10 May 2013 10:45 pm Operator: VG
Sample : LCSaA051013V82601 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: May 11 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



123739
1,4 Dioxane 8260B SIM
Support Data

IS/SS ID= V- 4074

Standard ID= V- 4040

LCS/LCSD and/or MS/MSD Standard ID= V- 4041

Analyst: VG

Date: 8/23/13

ALS	Data File	Sample Name	RR	AQ	SO	Dilution	Aq Meth	An Meth	Comments	A
1	SD08231	BMB		✓		X1	VOC MSI			
2	2	STD5					VOC SIM	25MSID		
3	3	LCS					VOC			
4	4	LCSD					VOC			
5	5	Blank					VOC			
6	6	123714.01					VOC			
7	7	02					VOC			
8	8	03					VOC			
9	9	04					VOC			
10	10	05					VOC			
11	11	06					VOC			
12	12	07					VOC			
13	13	08				X10	VOC			
14	14	09					VOC			
15	15	10					VOC			
16	16	STD.25				X1	VOC			
17	17	BMB					VOC MSI			
18	18	STD5					VOC SIM			
19	19	LCS					VOC			
20	20	LCSD					VOC			
21	21	Blank					VOC			
22	22	123739.01					VOC			
23	23	02				X10	VOC			
24	24	03					VOC			
25	25	04					VOC			
26	26	09					VOC			
27	27	10					VOC			
28	28	11					VOC			
29	29	12					VOC			
30	30	123825.01				X100	VOC			
31	31	02		✓		X1	VOC			
							VOC			
							VOC			
							VOC			
							VOC			
							VOC			
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							VOC			
							VOC			
							VOC			
							VOC			
							VOC			

Samples removed from autosampler, order verified by [signature] 8/26/13

GC/MS QA-QC Check Report

Tune File : V:\1\DATA\2013\AUG13\AUG2313\SA082317.D
Tune Time : 24 Aug 2013 12:15 am

Daily Calibration File : V:\1\DATA\2013\AUG13\AUG2313\SA082318.D

				155121
File	Sample	Surrogate Recovery %		Internal Standard Responses
SA082318.D	STD5	97	105	155121
SA082319.D	LCS5	99	104	153944
SA082320.D	LCSD5	94	105	153203
SA082321.D	BLANK	94	105	155535
SA082322.D	123739.01	94	105	156117
SA082323.D	123739.02	95	105	157654
SA082324.D	123739.03	99	105	161310
SA082325.D	123739.04	94	105	160000
SA082326.D	123739.09	95	105	155953
SA082327.D	123739.10	95	105	156644
SA082328.D	123739.11	95	105	157328
SA082329.D	123739.12	95	106	159604
SA082330.D	123825.01	99	106	157312
SA082331.D	123825.02	99	106	157745

t - fails 12hr time check * - fails criteria

Created: Mon Aug 26 08:35:17 2013 VOAMS2

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082316.D Vial: 16
Acq On : 23 Aug 2013 11:24 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:28:26 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

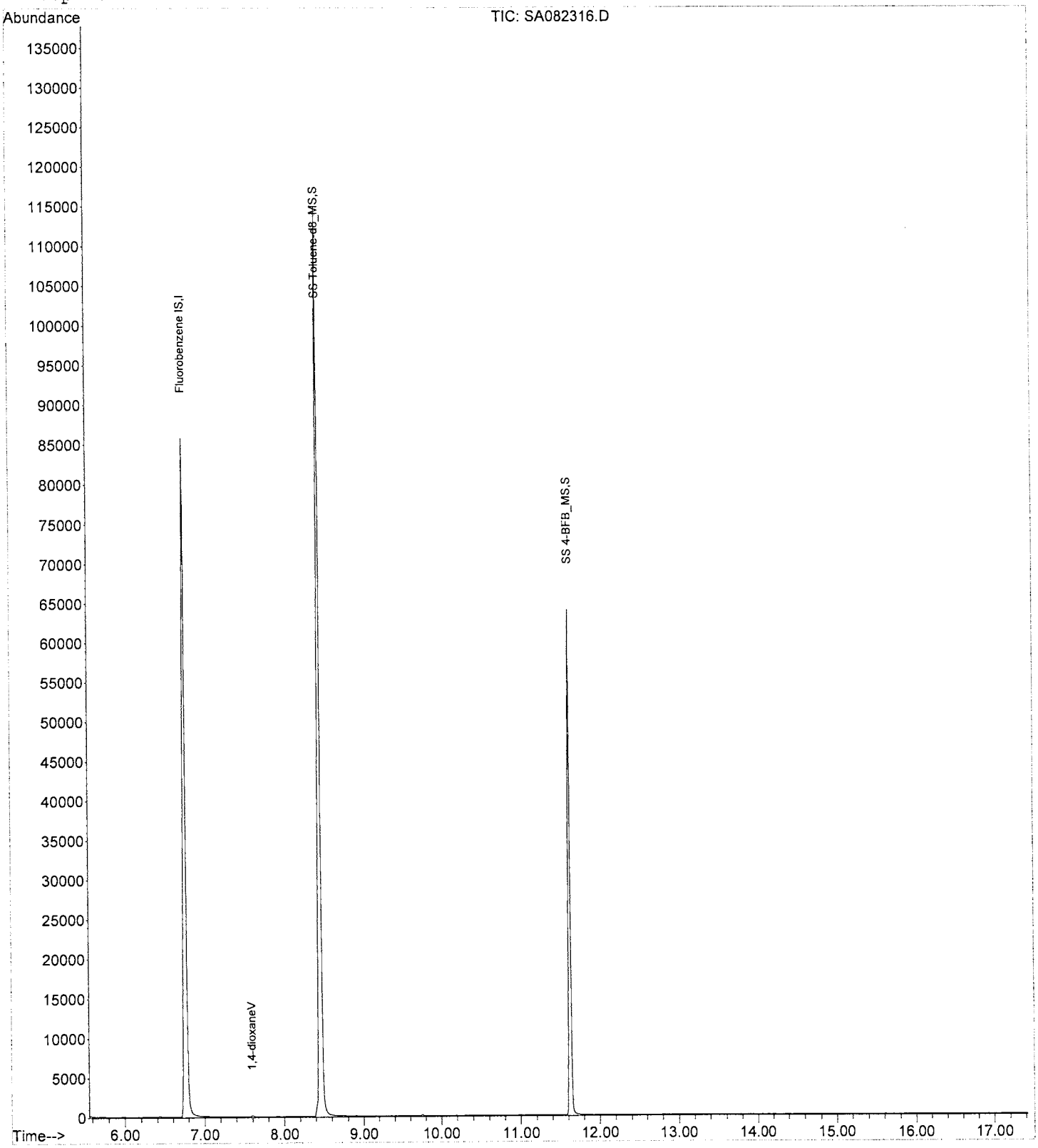
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	154775	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	158453	9.86	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.63%			
4) SS 4-BFB_MS	11.62	95	59695	10.37	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.73%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	211m	0.325	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

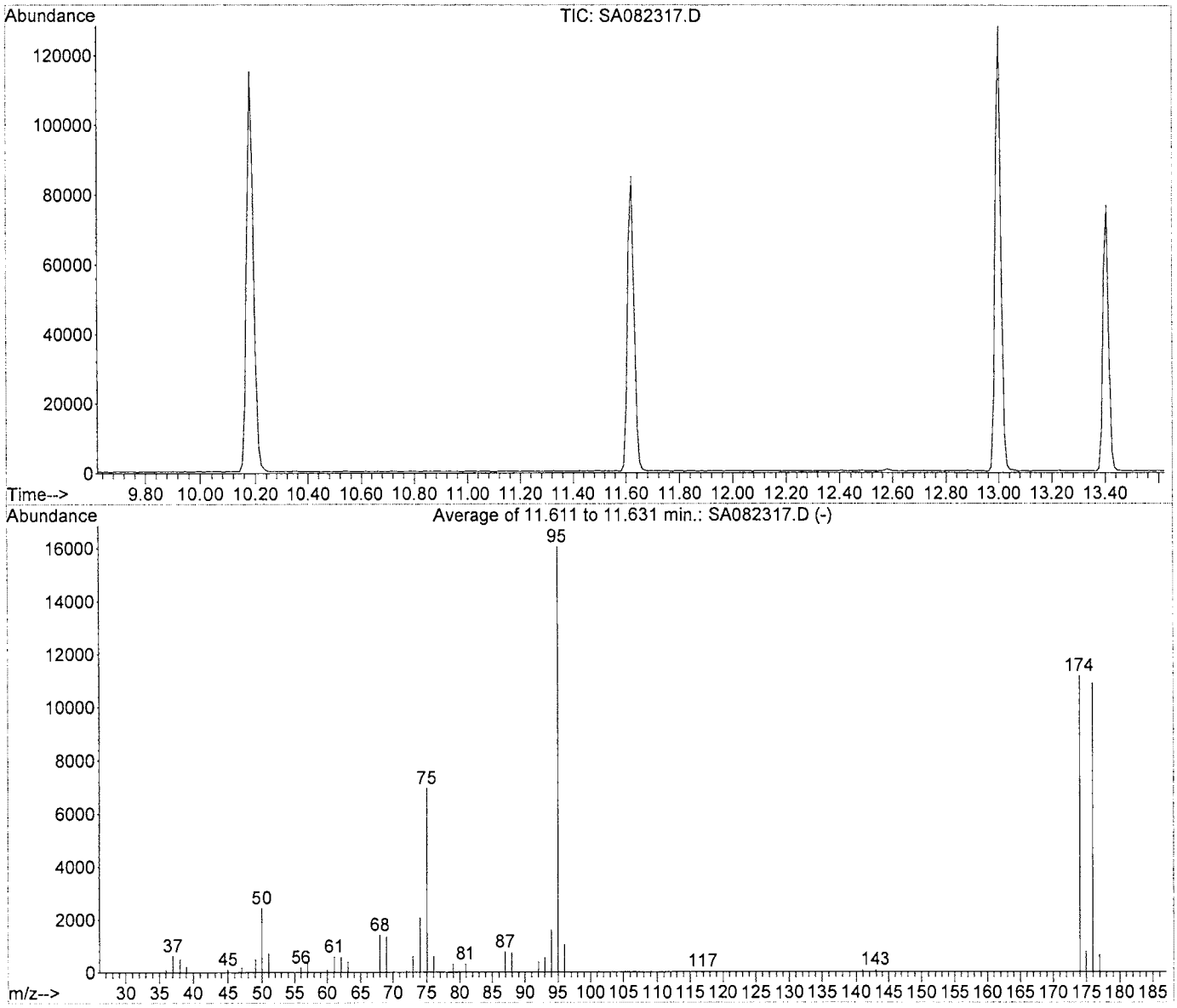
Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082316.D Vial: 16
Acq On : 23 Aug 2013 11:24 pm Operator: VG
Sample : STD0.25 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:52 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082317.D Vial: 17
Acq On : 24 Aug 2013 12:15 am Operator: VG
Sample : BFB Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09



Spectrum Information: Average of 11.611 to 11.631 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	2446	PASS
75	95	30	60	43.3	6951	PASS
95	95	100	100	100.0	16048	PASS
96	95	5	9	6.5	1046	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	69.4	11142	PASS
175	174	5	9	7.1	787	PASS
176	174	95	101	97.5	10867	PASS
177	176	5	9	6.1	661	PASS

Evaluate Continuing Calibration Report

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082318.D Vial: 18
Acq On : 24 Aug 2013 1:06 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene IS	10.000	10.000	0.0	98	-0.02
2		1,4-dioxaneV	5.000	5.167	-3.3	100	-0.01
3	S	SS Toluene-d8_MS	10.000	9.670	3.3	93	-0.02
4	S	SS 4-BFB_MS	10.000	10.518	-5.2	103	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
SA051011.D 2SIM0510.M Tue Aug 27 13:00:00 2013

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082318.D Vial: 18
Acq On : 24 Aug 2013 1:06 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:28:59 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

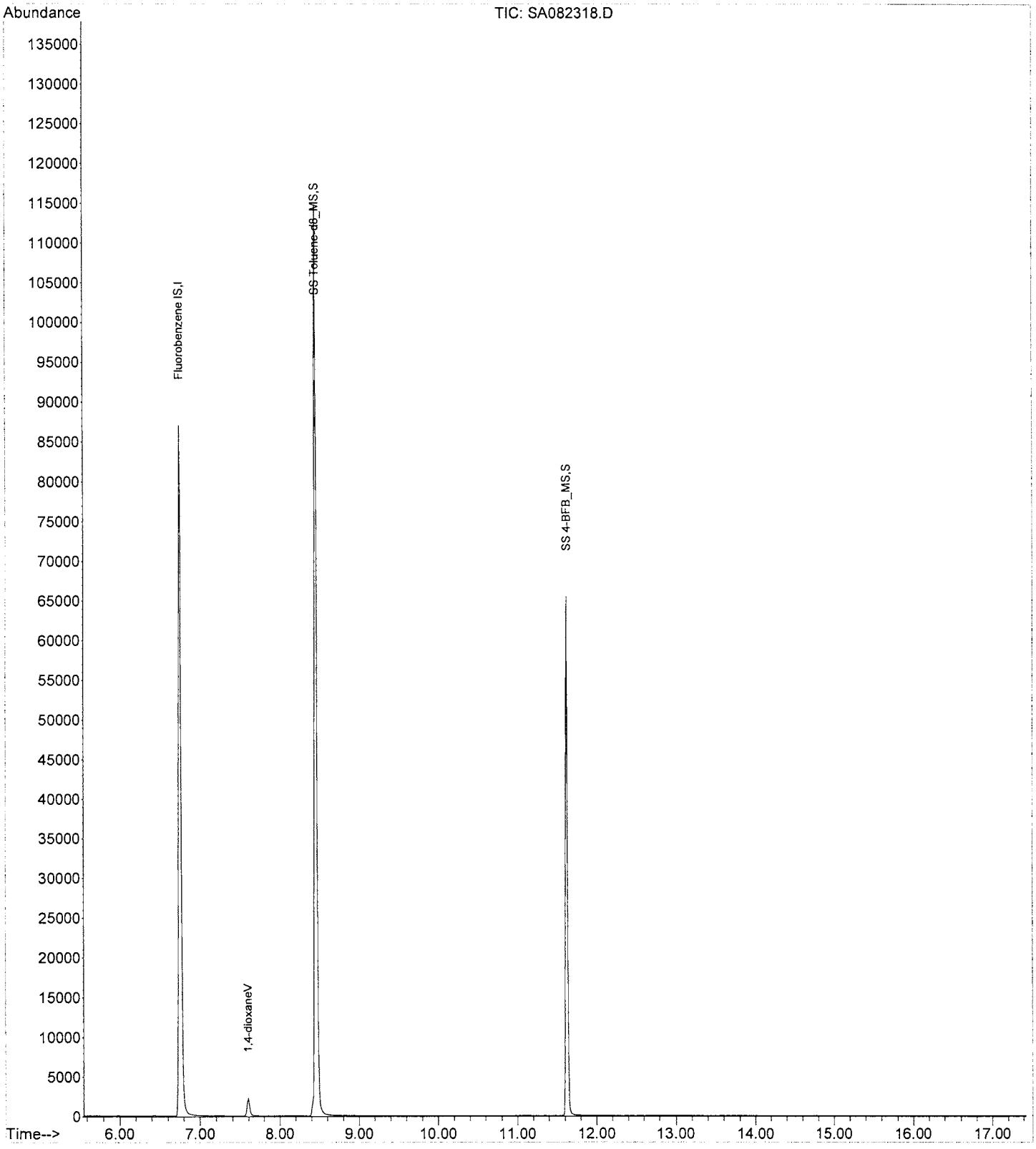
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	155121	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.45	98	155711	9.67	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.70%			
4) SS 4-BFB_MS	11.62	95	60668	10.52	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.18%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3364	5.167	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082318.D Vial: 18
Acq On : 24 Aug 2013 1:06 am Operator: VG
Sample : STD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:27 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082319.D Vial: 19
Acq On : 24 Aug 2013 1:57 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:29:09 2013 Quant Results File: 2SIM0510.RES

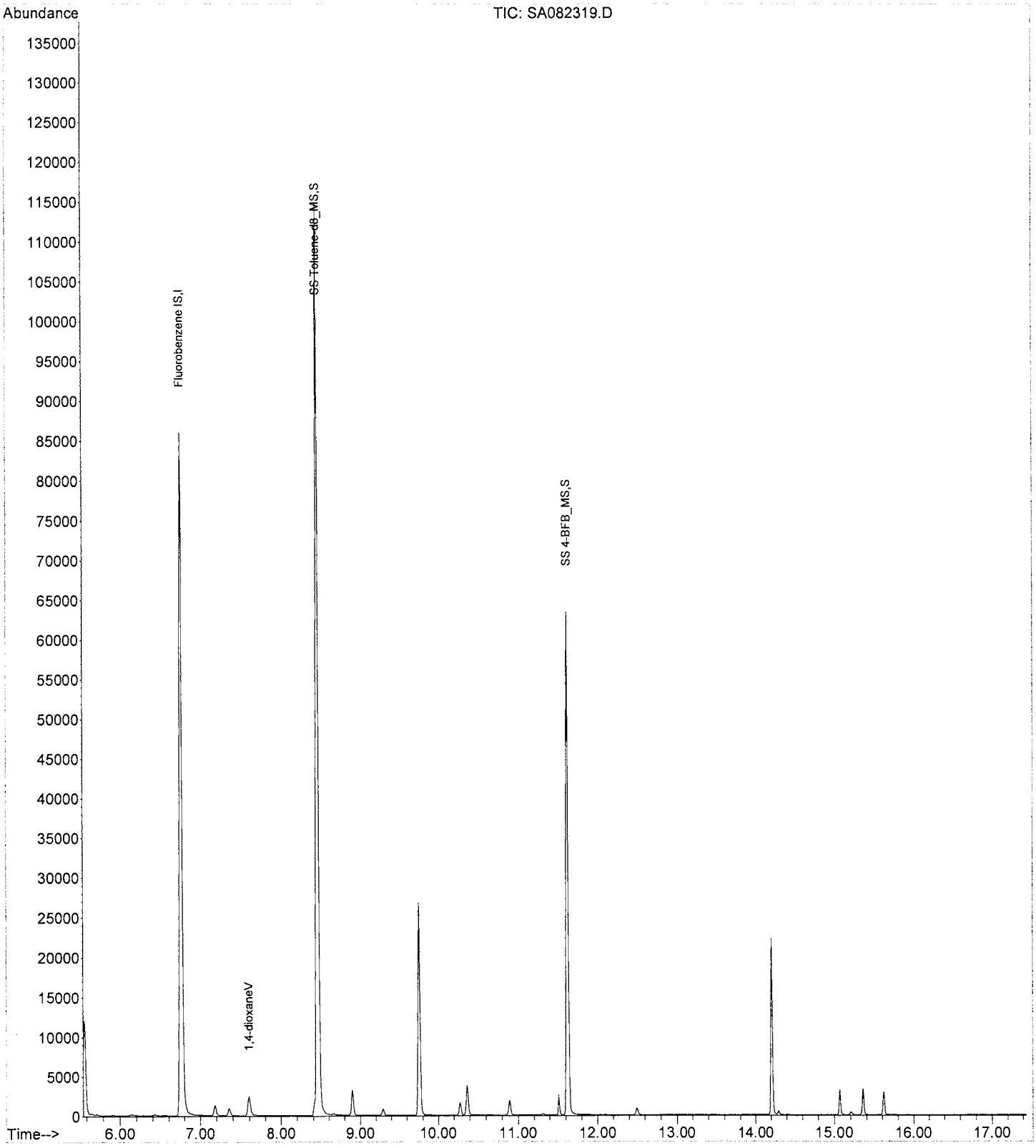
Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	153944	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	158730	9.93	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.33%			
4) SS 4-BFB_MS	11.62	95	59586	10.41	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.10%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3403m	5.267	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082319.D Vial: 19
Acq On : 24 Aug 2013 1:57 am Operator: VG
Sample : LCS5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:53 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082320.D Vial: 20
Acq On : 24 Aug 2013 2:49 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:29:19 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

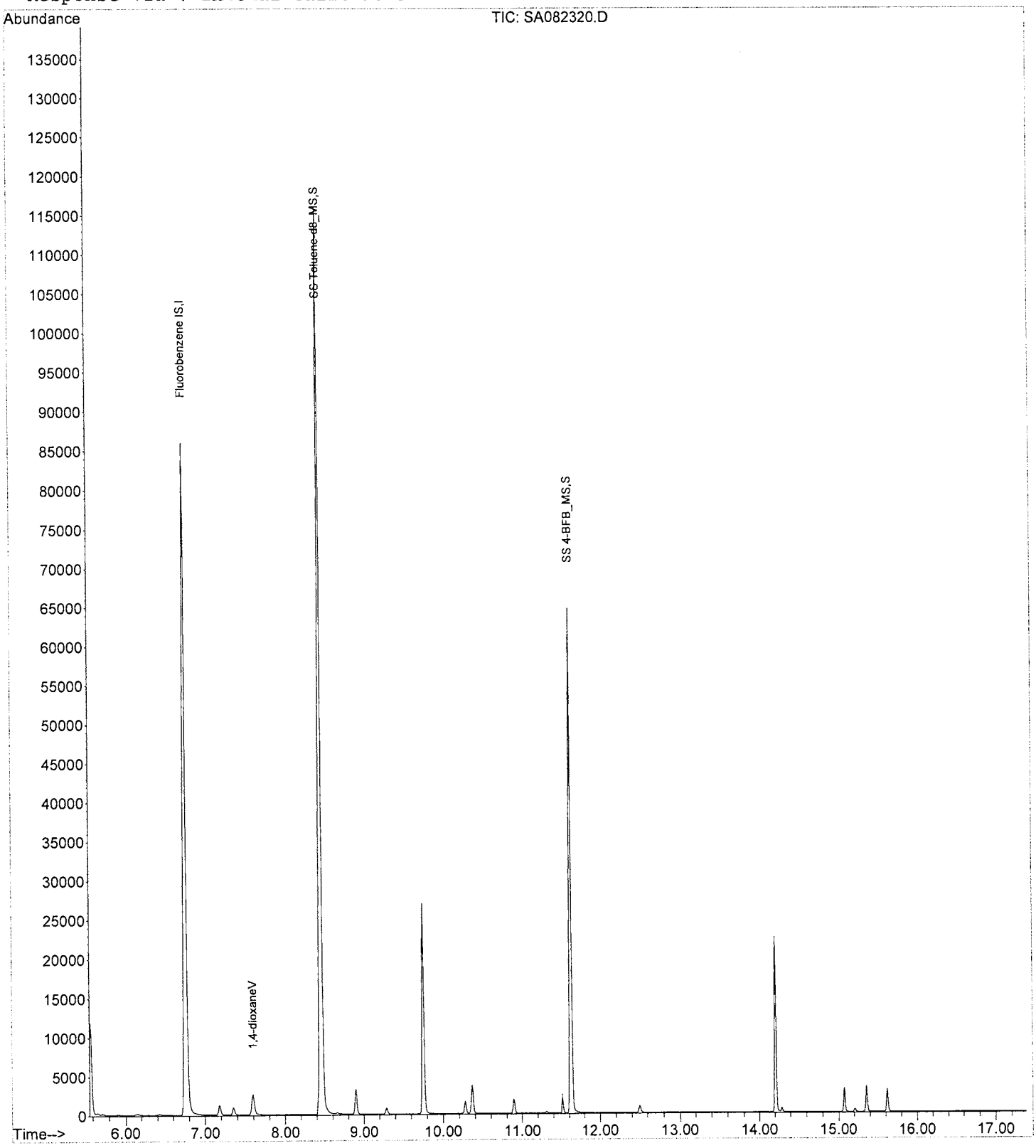
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	153203	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	150104	9.44	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.39%			
4) SS 4-BFB_MS	11.62	95	59863	10.51	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.09%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	3673m	5.713	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082320.D Vial: 20
Acq On : 24 Aug 2013 2:49 am Operator: VG
Sample : LCSD5 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:53 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082321.D Vial: 21
Acq On : 24 Aug 2013 3:39 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:29:28 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

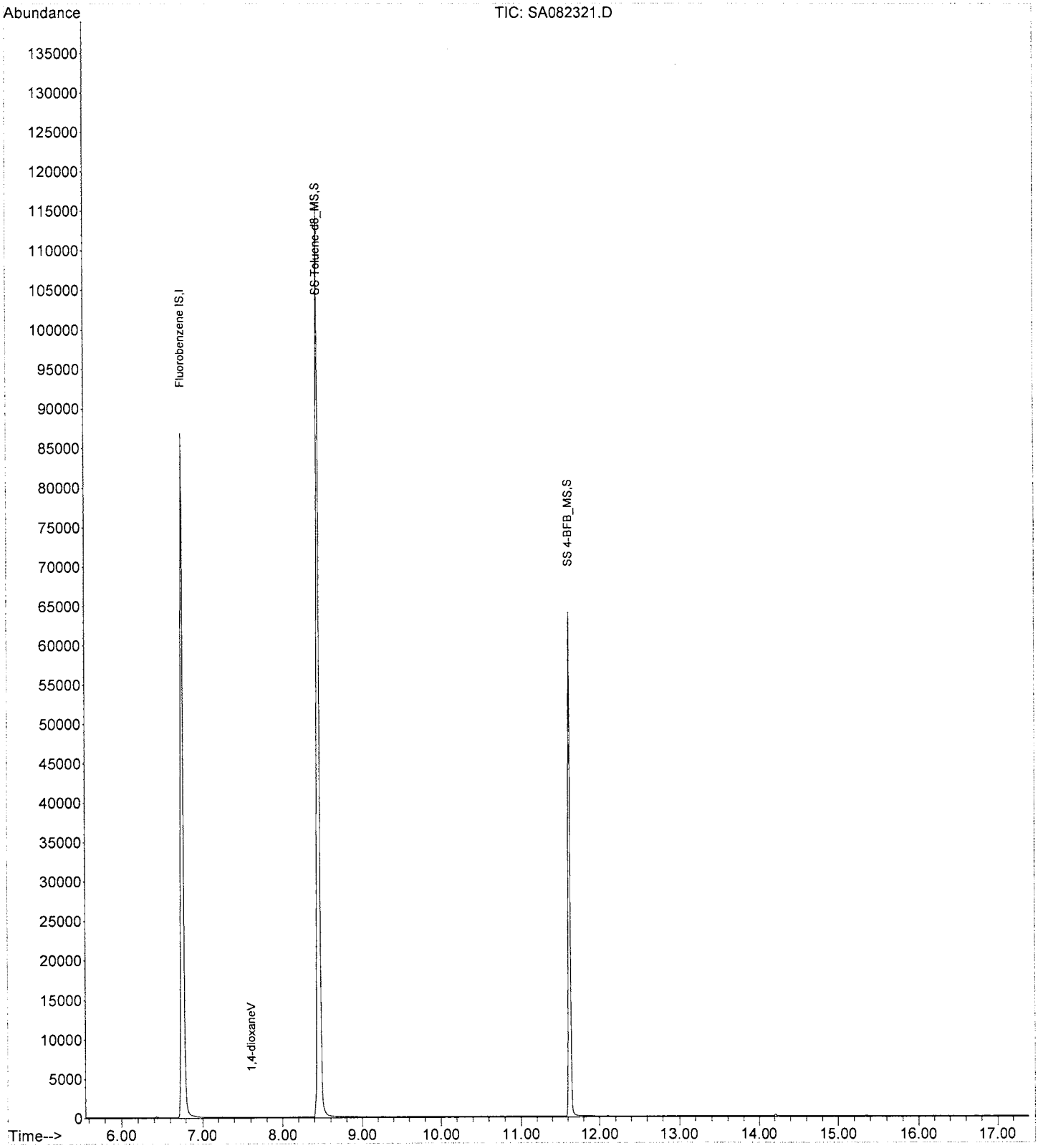
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	155535	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	152013	9.42	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.16%			
4) SS 4-BFB_MS	11.62	95	60606	10.48	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.79%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	89m	0.136	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082321.D Vial: 21
Acq On : 24 Aug 2013 3:39 am Operator: VG
Sample : BLANK Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:54 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082322.D Vial: 22
Acq On : 24 Aug 2013 4:30 am Operator: VG
Sample : 123739.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:05 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156117	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.45	98	152911	9.44	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.36%			
4) SS 4-BFB_MS	11.62	95	60826	10.48	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.78%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.61	88	8	0.012	ug/L	98

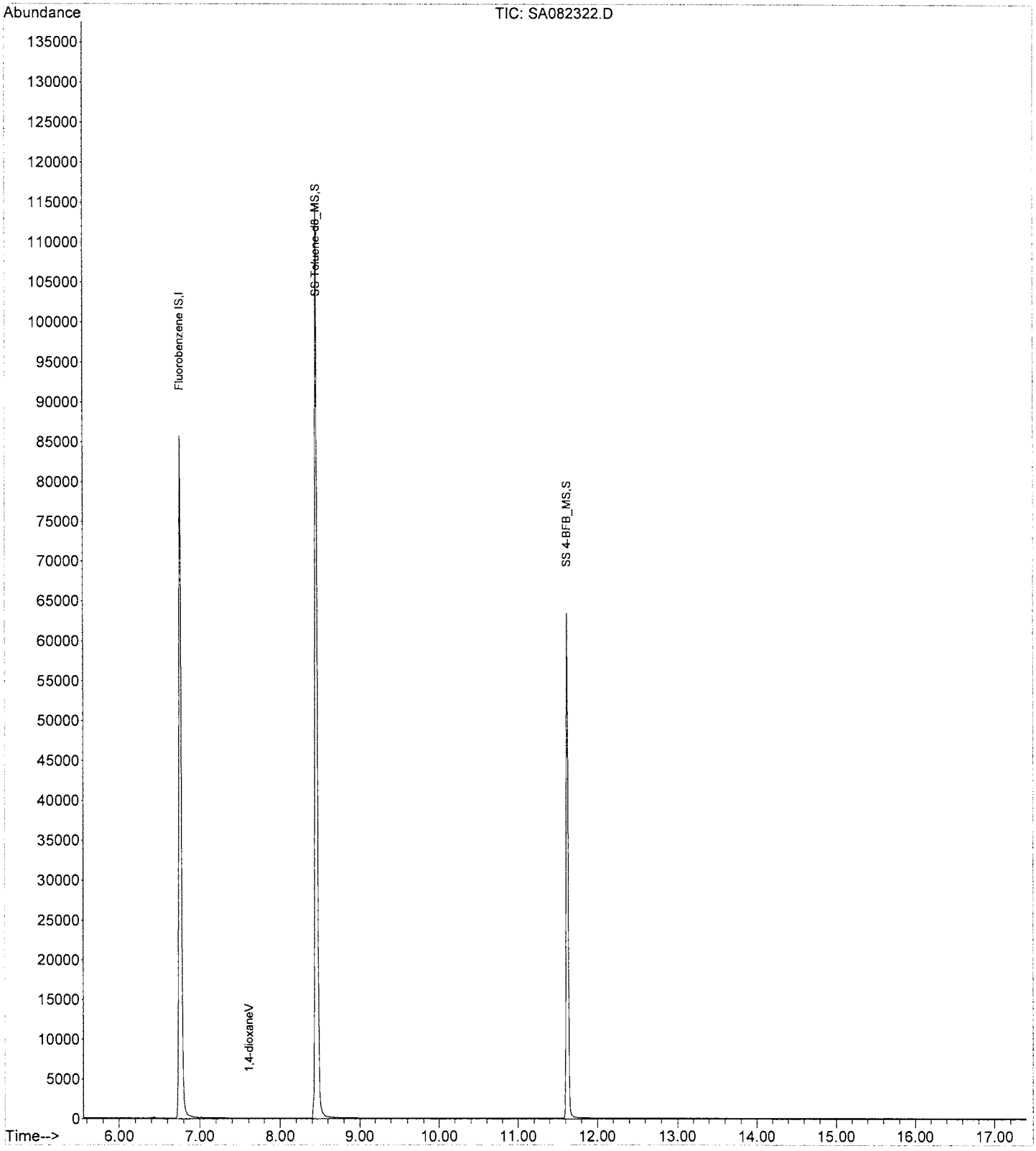
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082322.D 2SIM0510.M Mon Aug 26 08:31:05 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082322.D Vial: 22
Acq On : 24 Aug 2013 4:30 am Operator: VG
Sample : 123739.01 Inst : VOAMS2
Misc : X1;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082323.D Vial: 23
Acq On : 24 Aug 2013 5:20 am Operator: VG
Sample : 123739.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:08 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	157654	10.000	ug/L	-0.02
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	155459	9.50	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	95.00%		
4) SS 4-BFB_MS		11.62	95	61279	10.45	ug/L	-0.02
Spiked Amount	10.000	Range 70 - 130		Recovery =	104.53%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	1657	2.504	ug/L	86

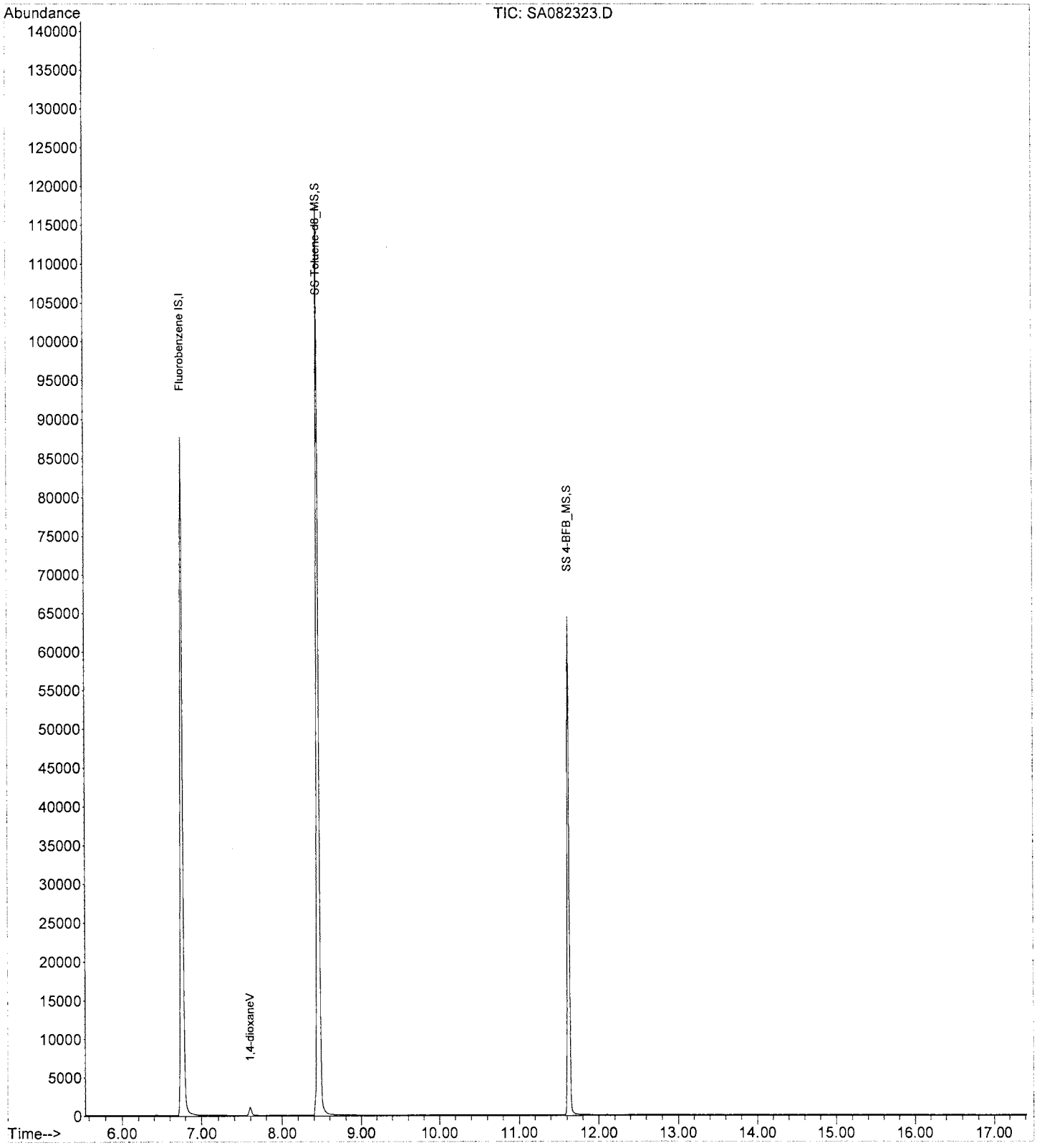
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082323.D 2SIM0510.M Mon Aug 26 08:31:08 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082323.D Vial: 23
Acq On : 24 Aug 2013 5:20 am Operator: VG
Sample : 123739.02 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082324.D Vial: 24
Acq On : 24 Aug 2013 6:10 am Operator: VG
Sample : 123739.03 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:11 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	161310	10.000 ug/L	-0.02
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	166383	9.94 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.37%		
4) SS 4-BFB_MS	11.63	95	63096	10.52 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.19%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	~~2392~~ 1613	~~3.533~~ 2.38 ug/L	# 66

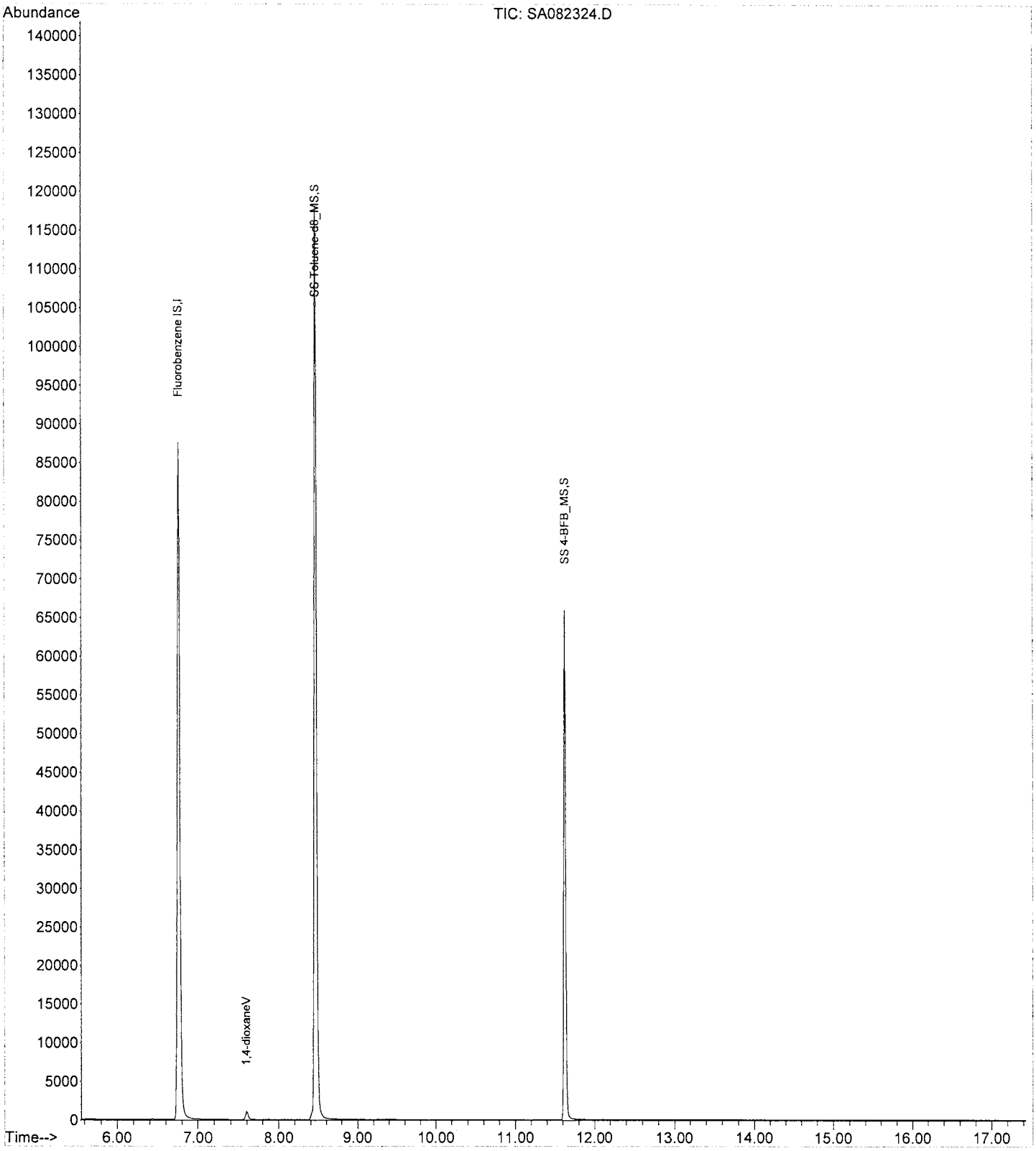
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082324.D 2SIM0510.M Mon Aug 26 08:31:11 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082324.D Vial: 24
Acq On : 24 Aug 2013 6:10 am Operator: VG
Sample : 123739.03 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082325.D Vial: 25
Acq On : 24 Aug 2013 7:00 am Operator: VG
Sample : 123739.04 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:14 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	160000	10.000 ug/L	-0.01
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	156430	9.42 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.19%		
4) SS 4-BFB_MS	11.63	95	62523	10.51 ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.09%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	~~2490~~ 1692	~~3.708~~ 2.52 ug/L	72

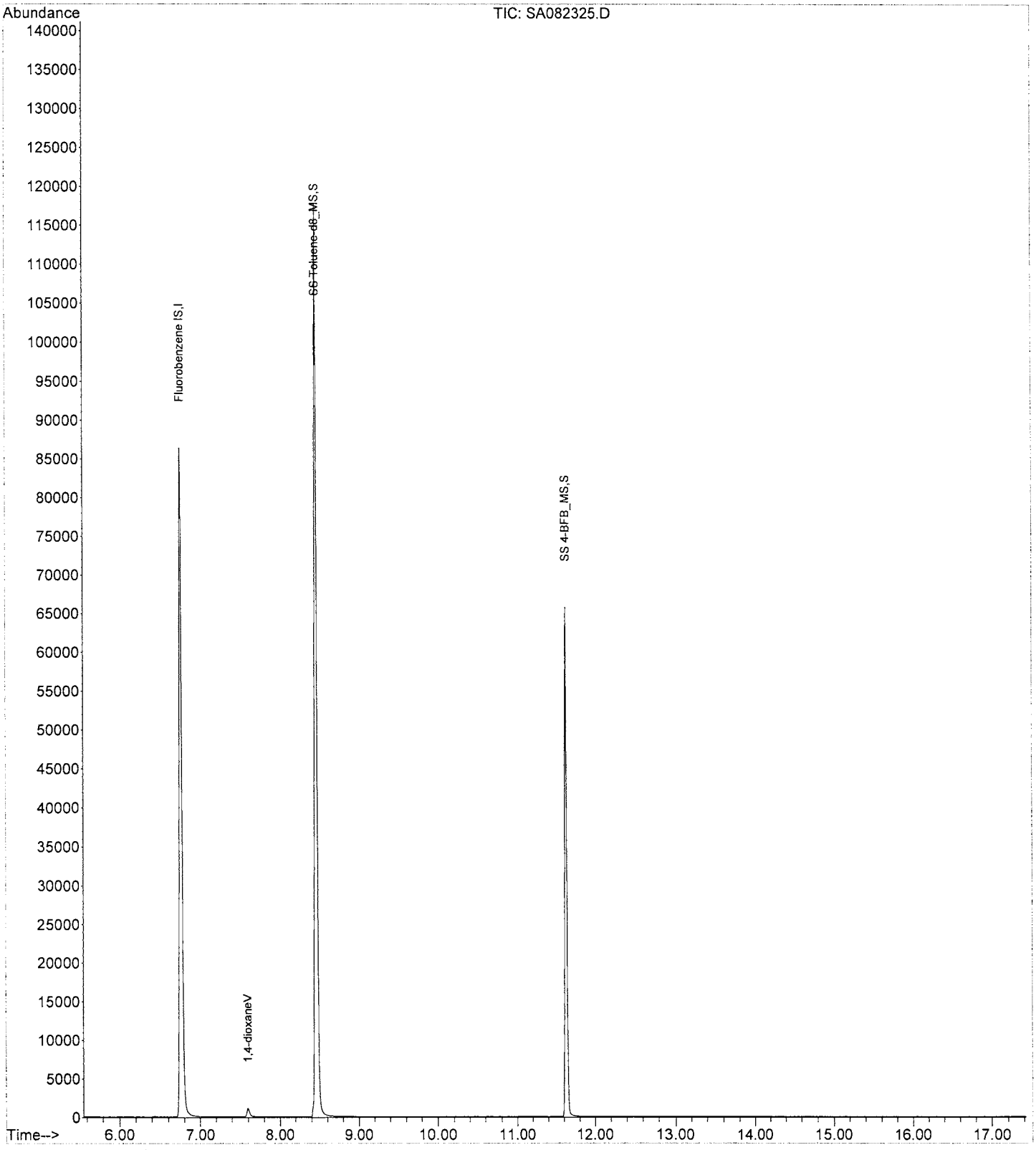
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082325.D 2SIM0510.M Mon Aug 26 08:31:14 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082325.D Vial: 25
Acq On : 24 Aug 2013 7:00 am Operator: VG
Sample : 123739.04 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082326.D Vial: 26
Acq On : 24 Aug 2013 7:49 am Operator: VG
Sample : 123739.09 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:17 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	155953	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	154214	9.53	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.26%			
4) SS 4-BFB_MS	11.62	95	61089	10.53	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.35%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	~~4957~~ 417	~~7.574~~ 6.29	ug/L	82

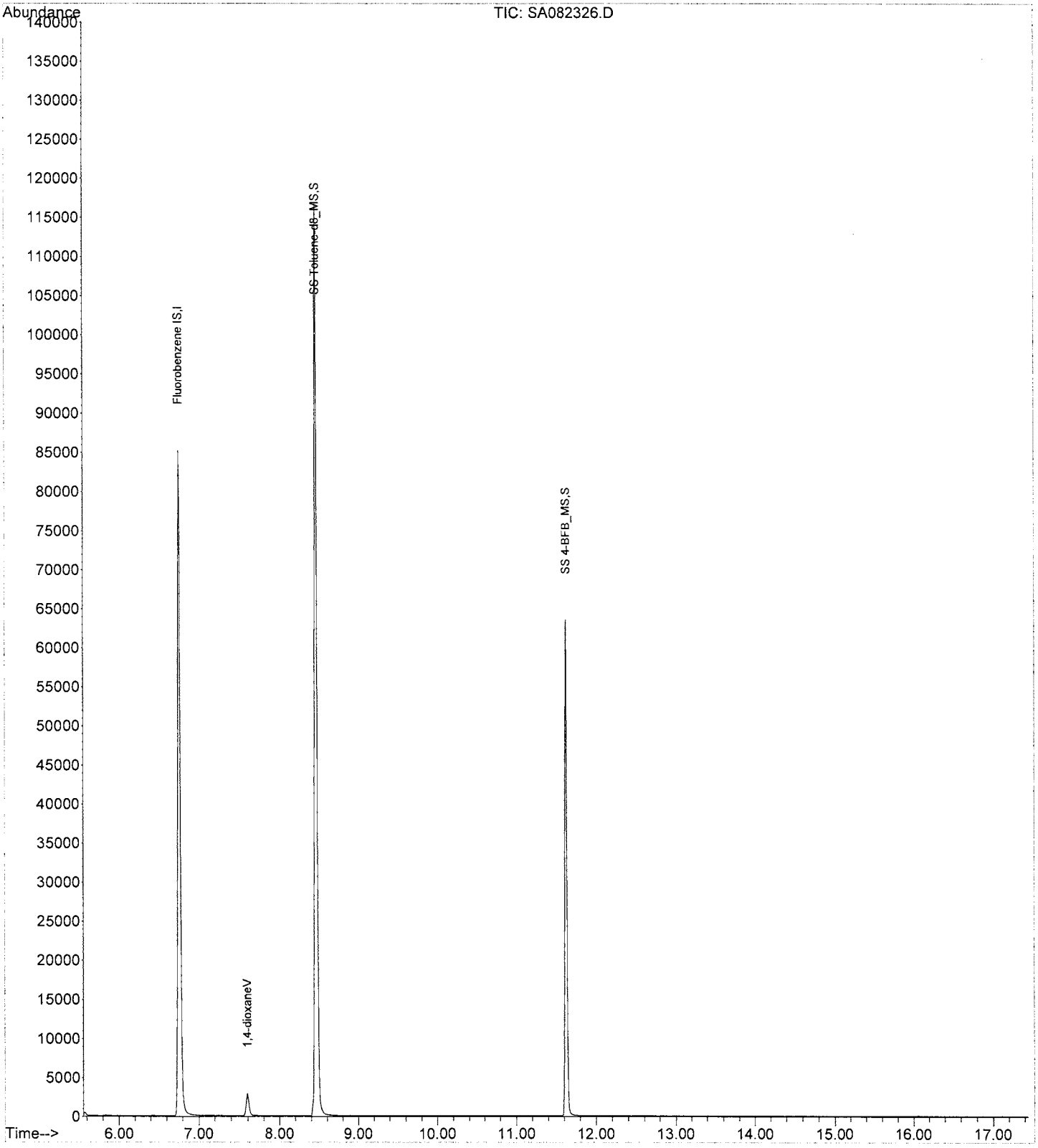
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082326.D 2SIM0510.M Mon Aug 26 08:31:17 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082326.D Vial: 26
Acq On : 24 Aug 2013 7:49 am Operator: VG
Sample : 123739.09 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082327.D Vial: 27
Acq On : 24 Aug 2013 8:39 am Operator: VG
Sample : 123739.10 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:20 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	156644	10.000 ug/L	-0.02
System Monitoring Compounds					
3) SS Toluene-d8_MS	8.46	98	154129	9.48 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.79%		
4) SS 4-BFB_MS	11.62	95	61087	10.49 ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.88%		
Target Compounds					Qvalue
2) 1,4-dioxaneV	7.59	88	4426	6.733 ug/L	88

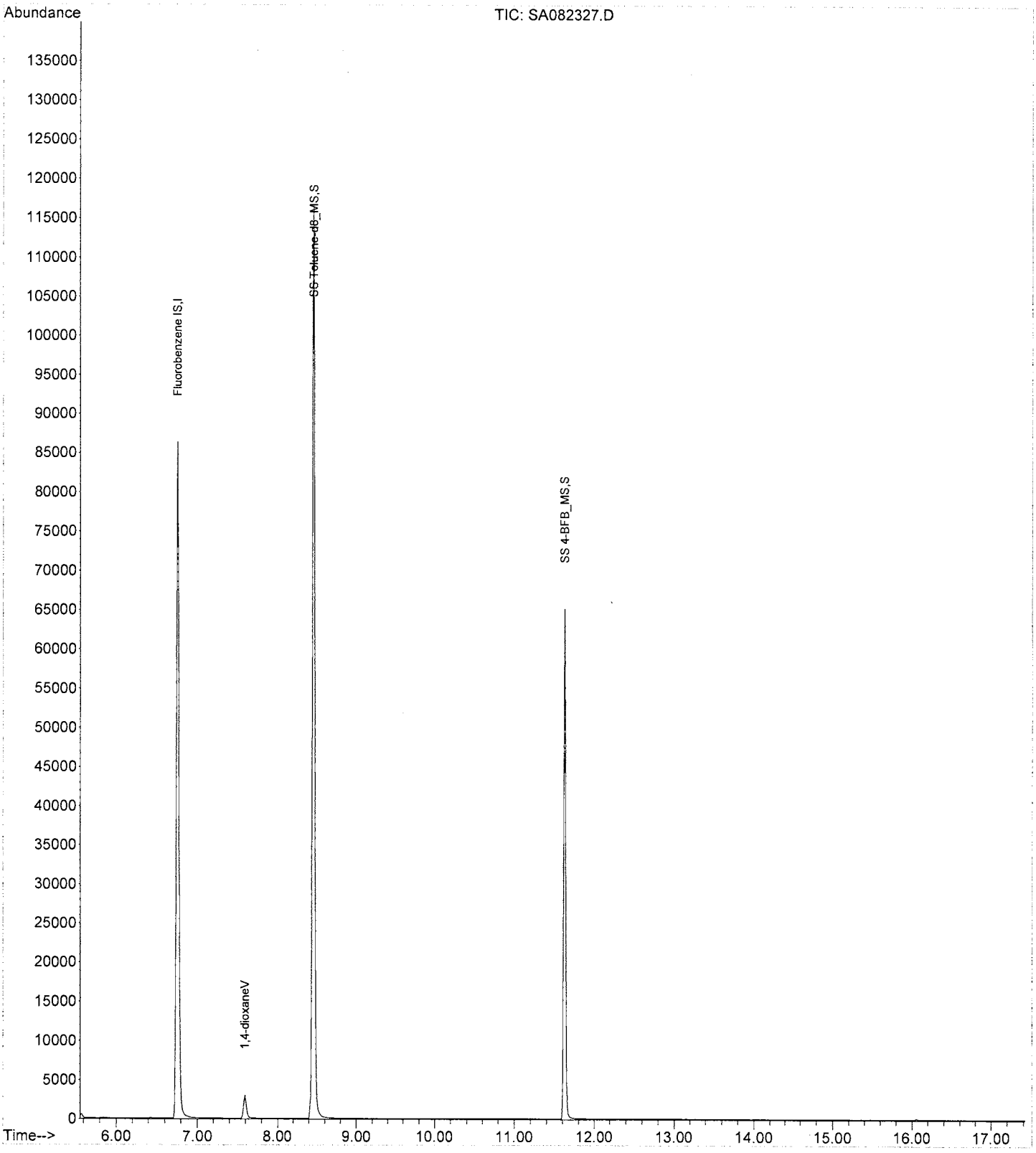
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082327.D 2SIM0510.M Mon Aug 26 08:31:20 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082327.D Vial: 27
Acq On : 24 Aug 2013 8:39 am Operator: VG
Sample : 123739.10 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082328.D Vial: 28
Acq On : 24 Aug 2013 9:28 am Operator: VG
Sample : 123739.11 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:23 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

Internal Standards		R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS		6.76	96	157328	10.000	ug/L	-0.01
System Monitoring Compounds							
3) SS Toluene-d8_MS		8.46	98	155555	9.53	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	95.25%		
4) SS 4-BFB_MS		11.63	95	61673	10.54	ug/L	-0.01
Spiked Amount	10.000	Range 70 - 130		Recovery =	105.42%		
Target Compounds							Qvalue
2) 1,4-dioxaneV		7.59	88	4226	6.400	ug/L	87

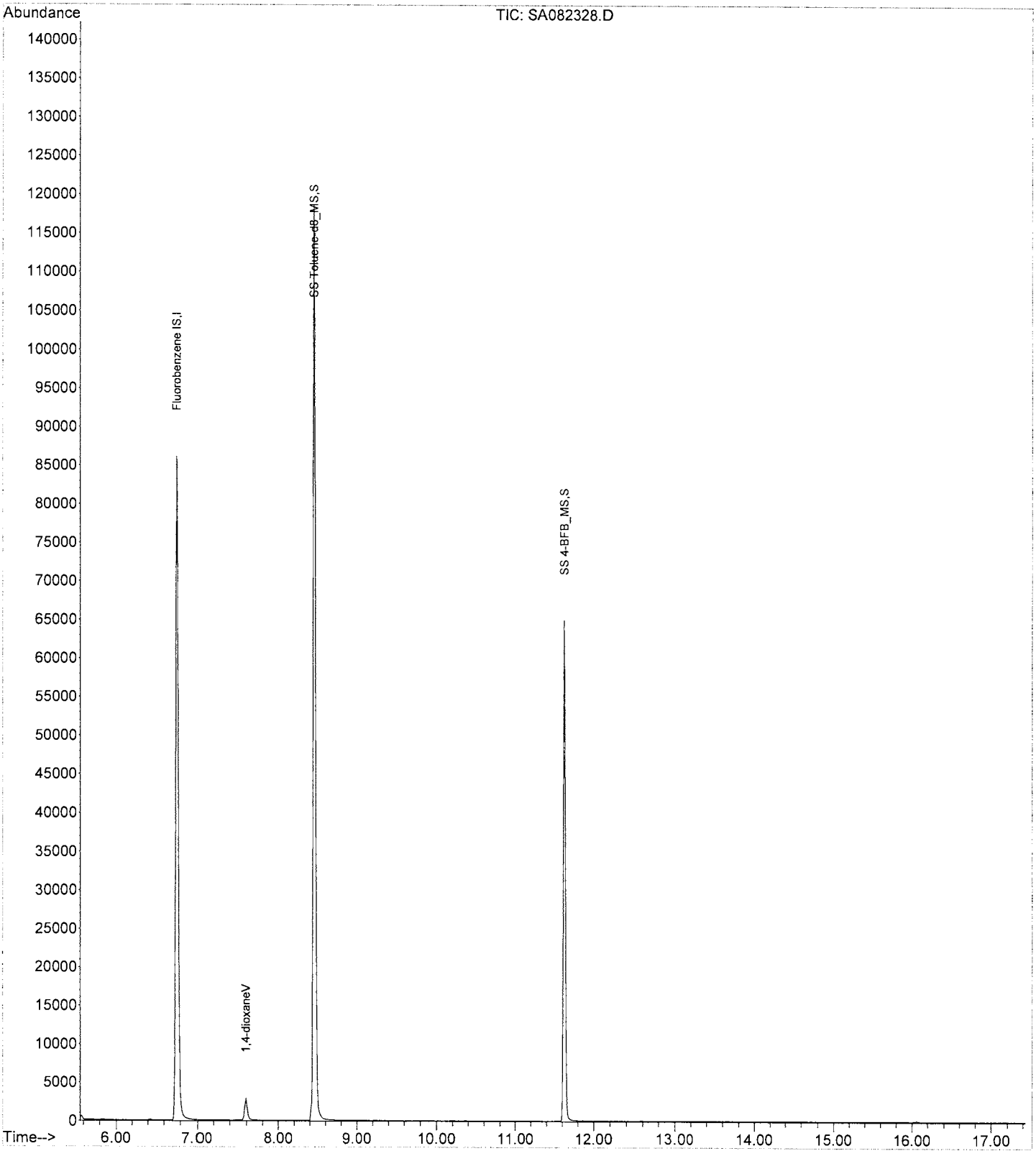
8/26/13

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082328.D 2SIM0510.M Mon Aug 26 08:31:23 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082328.D Vial: 28
Acq On : 24 Aug 2013 9:28 am Operator: VG
Sample : 123739.11 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082329.D Vial: 29
Acq On : 24 Aug 2013 10:17 am Operator: VG
Sample : 123739.12 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 08:31:26 2013 Quant Results File: 2SIM0510.RES

Quant Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration
DataAcq Meth : VOCSIM

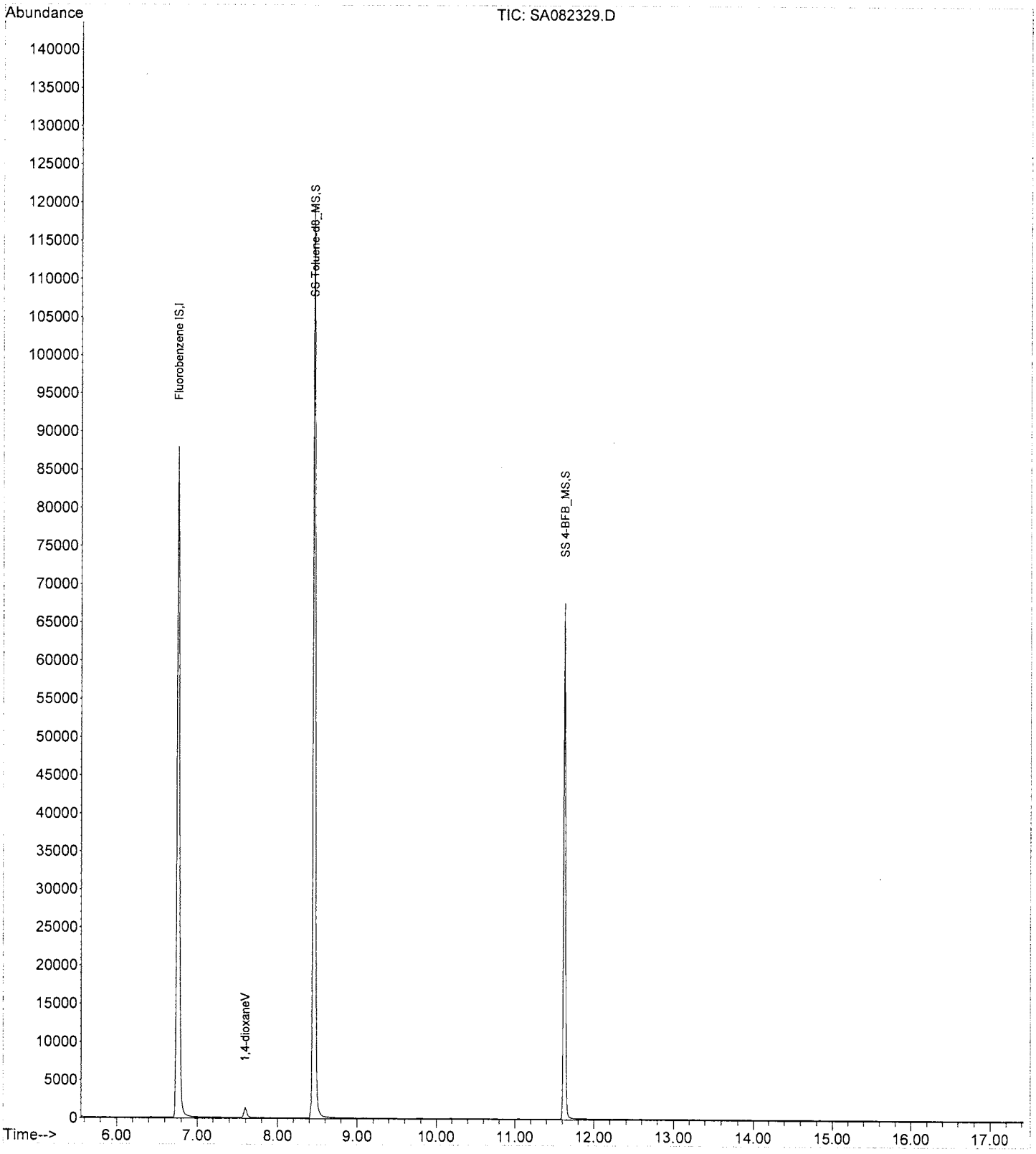
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene IS	6.76	96	159604	10.000	ug/L	-0.02
System Monitoring Compounds						
3) SS Toluene-d8_MS	8.46	98	157180	9.49	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.87%			
4) SS 4-BFB_MS	11.63	95	62976	10.61	ug/L	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.12%			
Target Compounds						Qvalue
2) 1,4-dioxaneV	7.59	88	~~2728~~ 1931	~~4.073~~ 2.89	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed
SA082329.D 2SIM0510.M Mon Aug 26 08:31:26 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : V:\1\DATA\2013\AUG13\AUG2313\SA082329.D Vial: 29
Acq On : 24 Aug 2013 10:17 am Operator: VG
Sample : 123739.12 Inst : VOAMS2
Misc : X10;5mL Multiplr: 1.00
MS Integration Params: INTP23.P
Quant Time: Aug 26 8:29 2013 Quant Results File: 2SIM0510.RES

Method : V:\1\METHODS\2013\2SIM0510.M (RTE Integrator)
Title : VOAMS2 4/8/09
Last Update : Sat May 11 08:55:49 2013
Response via : Initial Calibration



Eastern Analytical, Inc.
professional laboratory & drilling services

123739
Metals Support Data

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August212013.sam
Report Date/Time: Friday, August 23, 2013 15:22:23

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA	new	Sample					
21		ICSAB	new	Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-19 A		Sample					
27		BLK 8-21 A		Sample					
28		BLK 8-21 B		Sample					
29		Ag LCS 8-15 A	1:10	Sample					
30		Ag LCS 8-15 B		Sample					
31		Ag LCS 8-19 A		Sample					
32		Ag LCS 8-21 A		Sample					
33		Ag LCS 8-21 B		Sample					
34		LCS 8-15 A		Sample					
35		LCS 8-15 B		Sample					
36		LCS 8-19 A		Sample					
37		LCS 8-21 A		Sample					
38		LCS 8-21 B		Sample					
39		flush		Sample					
40		flush		Sample					
41		flush		Sample					
42		flush		Sample					
43		123528.02	1:1 Ca LR	Sample					
44		123528.03	1:1 Ca LR	Sample					
45		123528.04	1:1 Sc met che	Sample					
46		123528.04 MS	1:1 Sc mets pre	Sample					
47		123528.04 MS	1:1 Sc mets pre	Sample					
48		123528.04 MS	1:1 Sc mets po	Sample					
49		123528.04 MS	1:1 Sc mets po	Sample					

50	flush		Sample
51	flush		Sample
52	flush		Sample
53	flush		Sample
54	123529.01		Sample
55	123529.02		Sample
56	123529.03		Sample
57	123529.04	1:1 Na LR	Sample
58	123529.05	1:1 Na + Ca LR	Sample
59	123649.01	1:1 Na + Ca LR	Sample
60	123649.01 MS	1:1 Sc mets pre	Sample
61	123649.01 MS	1:1 Sc mets pre	Sample
62	123649.01 MS	1:1 Sc mets pos	Sample
63	123649.01 MS	1:1 Sc mets pos	Sample
64	flush		Sample
65	flush		Sample
66	flush		Sample
67	flush		Sample
68	123649.02	1:1 Na + Ca + F	Sample
69	123649.03		Sample
70	123649.06	1:1 Na LR	Sample
71	123649.06 MS	1:1 Sc mets pre	Sample
72	123649.06 MS	1:1 Sc mets pre	Sample
73	123649.06 MS	1:1 Sc mets pos	Sample
74	123649.06 MS	1:1 Sc mets pos	Sample
75	flush		Sample
76	flush		Sample
77	flush		Sample
78	flush		Sample
79	123650.01		Sample
80	123650.02		Sample
81	123650.03		Sample
82	123650.04	1:10 Na LR	Sample
83	123705.09		Sample
84	123739.05		Sample
85	123739.12	1:1 Na LR	Sample
86	123739.13	1:1 Na LR	Sample
87	123739.13 MS	1:1 Sc mets pre	Sample
88	123739.13 MS	1:1 Sc mets pre	Sample
89	123739.13 MS	1:1 Sc mets pos	Sample
90	123739.13 MS	1:1 Sc mets pos	Sample
91	flush		Sample
92	flush		Sample
93	flush		Sample
94	flush		Sample
95	123739.14	1:1 Na LR	Sample
96	123739.15		Sample
97	123739.16		Sample
98	123529.06		Sample
99	123529.07		Sample
100	123529.08		Sample
101	123529.09		Sample
102	123529.10		Sample
103	123529.10 Mspre		Sample
104	123529.10 Mspre		Sample
105	flush		Sample
106	flush		Sample
107	flush		Sample
108	flush		Sample
109	123529.11		Sample

Last ~~good~~ passing QC set.
autosampler malfunctions
Not Reporting any As, Mn

auto sampler malfuctions

110	123529.12	Sample
111	123529.13	Sample
112	123529.14	Sample
113	123529.15	Sample
114	123529.16	Sample
115	123529.17	Sample
116	123529.18	Sample
117	123529.19	Sample
118	123529.20	Sample
119	123529.20 M$post	Sample
120	123529.20 M$post	Sample
121	flush	Sample
122	flush	Sample
123	flush	Sample
124	123529.21	Sample
125	123529.22	Sample
126	123529.23	Sample
127	123529.24	Sample
128	123529.25	Sample
129	123529.27	Sample
130	123529.28	Sample
131	123529.29	Sample
132	123739.02	Sample
133	123739.03	Sample
134	123739.03 M$post	Sample
135	123739.03 M$post	Sample
136	flush	Sample
137	flush	Sample
138	flush	Sample
139	123739.04	Sample
140	123739.06	Sample
141	123739.07	Sample
142	123739.08	Sample
143	123739.09	Sample
144	123739.10	Sample
145	123739.11	Sample
146	123739.17	Sample
147	123739.18	Sample
148	123739.19	Sample
149	123739.19 M$post	Sample
150	123739.19 M$post	Sample
151	flush	Sample
152	flush	Sample
153	flush	Sample
154	123739.20	Sample
155	123739.21	Sample
156	123739.22	Sample
157		Sample
158		Sample
159		Sample
160		Sample

Not Reported

Autosampler malfunction

not run

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 21, 2013 13:14:57
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.016
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual

Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.57 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	52531.2	52531.176	202.434	0.4
	Rh	102.9	350682.7	350682.715	1462.055	0.4
	In	114.9	410464.8	410464.827	5375.577	1.3
	Pb	208.0	344933.5	344933.504	6270.296	1.8
⌈>	Ba	137.9	401627.5	401627.526	2266.858	0.6
⌊	Ba++	69.0	4623.8	0.012	0.000	1.8
⌈>	Ce	139.9	490808.2	490808.202	2010.857	0.4
⌊	CeO	155.9	13310.7	0.027	0.001	2.2
	Bkgd	220.0	3.8	3.800	2.050	53.9

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74162

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	5284.5
Co	59	11	6.5	149579.0
In	115	11	7.3	453465.0

74168

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	604	2087	0.635	
Mg	23.985	23.978	5743	2024	0.658	
Rh	102.905	102.928	25058	1900	0.687	
Ce	139.905	139.879	34033	1961	0.699	
Pb	207.977	207.978	50450	2247	0.678	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Wednesday, August 21, 2013 13:27:35	0	0	0	0
Standard 1	Wednesday, August 21, 2013 13:34:05	0	0	0	0
Standard 2	Wednesday, August 21, 2013 13:40:36	0	0	0	0
Standard 3	Wednesday, August 21, 2013 13:47:08	0	0	0	0
Standard 4	Wednesday, August 21, 2013 13:53:39	0	0	0	0
Standard 5	Wednesday, August 21, 2013 14:00:11	0	0	0	0
Standard 6	Wednesday, August 21, 2013 14:06:43	0	0	0	0
Standard 7	Wednesday, August 21, 2013 14:13:16	0	0	0	0
Standard 8	Wednesday, August 21, 2013 14:19:49	0	0	0	0
Standard 9	Wednesday, August 21, 2013 14:26:20	0	0	0	0
QC Std 1	Wednesday, August 21, 2013 14:32:52	98	99	98	100
QC Std 2	Wednesday, August 21, 2013 14:39:23	98	98	98	100
QC Std 3	Wednesday, August 21, 2013 14:45:53	99	99	97	101
QC Std 5	Wednesday, August 21, 2013 14:52:24	98	97	97	99
QC Std 6	Wednesday, August 21, 2013 14:58:54	98	98	96	99
LLCS	Wednesday, August 21, 2013 15:11:55	100	99	98	98
LLCS	Wednesday, August 21, 2013 15:18:26	99	100	99	100
LLCS	Wednesday, August 21, 2013 15:24:56	100	100	100	99
ICSA	Wednesday, August 21, 2013 15:31:27	96	99	91	94
ICSAB	Wednesday, August 21, 2013 15:37:59	90	99	90	93
ICSA	Wednesday, August 21, 2013 15:44:31	89	97	88	92
ICSA	Wednesday, August 21, 2013 15:51:37	87	96	88	91
ICSAB	Wednesday, August 21, 2013 15:58:08	85	95	87	92
5ppm LRC-flush	Wednesday, August 21, 2013 16:14:45	90	95	97	97
BLK 8-15 A	Wednesday, August 21, 2013 16:27:49	93	94	96	96
BLK 8-15 B	Wednesday, August 21, 2013 16:34:22	93	95	96	98
BLK 8-19 A	Wednesday, August 21, 2013 16:40:54	93	93	94	95
BLK 8-21 A	Wednesday, August 21, 2013 16:47:25	94	95	94	94
BLK 8-21 B	Wednesday, August 21, 2013 16:53:56	94	96	96	97
Ag LCS 8-15 A	Wednesday, August 21, 2013 17:00:27	94	95	96	96
Ag LCS 8-15 B	Wednesday, August 21, 2013 17:06:57	94	94	96	96
Ag LCS 8-19 A	Wednesday, August 21, 2013 17:13:28	94	93	96	98
QC Std 1	Wednesday, August 21, 2013 17:20:00	92	93	93	96
QC Std 2	Wednesday, August 21, 2013 17:26:31	90	91	94	97
QC Std 5	Wednesday, August 21, 2013 17:33:02	90	91	92	96
QC Std 6	Wednesday, August 21, 2013 17:39:32	90	89	91	95
Ag LCS 8-21 A	Wednesday, August 21, 2013 17:46:03	92	90	94	99
Ag LCS 8-21 B	Wednesday, August 21, 2013 17:52:35	92	92	94	96
LCS 8-15 A	Wednesday, August 21, 2013 17:59:06	91	88	91	96
LCS 8-15 B	Wednesday, August 21, 2013 18:05:38	85	84	89	94
LCS 8-19 A	Wednesday, August 21, 2013 18:12:11	85	82	86	92
LCS 8-21 A	Wednesday, August 21, 2013 18:18:44	84	83	86	94
LCS 8-21 B	Wednesday, August 21, 2013 18:25:16	84	81	87	94
QC Std 1	Wednesday, August 21, 2013 18:51:22	84	82	89	96
QC Std 2	Wednesday, August 21, 2013 18:57:53	83	83	88	95
QC Std 5	Wednesday, August 21, 2013 19:04:23	86	84	90	95
QC Std 6	Wednesday, August 21, 2013 19:10:54	87	85	88	96
123528.02	Wednesday, August 21, 2013 19:23:56	118	86	86	92
123528.03	Wednesday, August 21, 2013 19:30:28	119	88	86	92
123528.04	Wednesday, August 21, 2013 19:36:59	125	94	89	96
123528.04 MS	Wednesday, August 21, 2013 19:43:31	115	89	86	90
123528.04 MSD	Wednesday, August 21, 2013 19:50:03	114	89	83	90
123528.04 MS	Wednesday, August 21, 2013 19:56:35	111	88	84	91
123528.04 MSD	Wednesday, August 21, 2013 20:03:08	111	88	83	89
QC Std 1	Wednesday, August 21, 2013 20:22:45	83	84	90	98
QC Std 2	Wednesday, August 21, 2013 20:29:16	83	83	90	98
QC Std 5	Wednesday, August 21, 2013 20:35:46	83	83	90	97
QC Std 6	Wednesday, August 21, 2013 20:42:17	82	82	86	96
123529.01	Wednesday, August 21, 2013 21:01:51	103	86	88	97
123529.02	Wednesday, August 21, 2013 21:08:23	120	84	87	93

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.03	Wednesday, August 21, 2013 21:14:54	95	81	87	94
123529.04	Wednesday, August 21, 2013 21:21:26	107	87	84	91
123529.05	Wednesday, August 21, 2013 21:27:58	104	82	84	92
123649.01	Wednesday, August 21, 2013 21:34:30	104	86	83	91
123649.01 MS	Wednesday, August 21, 2013 21:41:03	101	88	83	89
123649.01 MSD	Wednesday, August 21, 2013 21:47:36	103	88	83	89
QC Std 1	Wednesday, August 21, 2013 21:54:09	85	86	90	97
QC Std 2	Wednesday, August 21, 2013 22:00:40	83	83	90	96
QC Std 5	Wednesday, August 21, 2013 22:07:10	82	83	90	96
QC Std 6	Wednesday, August 21, 2013 22:13:41	81	81	86	95
123649.01 MS	Wednesday, August 21, 2013 22:20:12	100	86	83	90
123649.01 MSD	Wednesday, August 21, 2013 22:26:44	99	86	83	87
123649.02	Wednesday, August 21, 2013 22:59:24	103	87	83	90
123649.03	Wednesday, August 21, 2013 23:05:56	97	83	88	95
123649.06	Wednesday, August 21, 2013 23:12:28	108	85	85	91
123649.06 MS	Wednesday, August 21, 2013 23:19:01	104	85	84	90
QC Std 1	Wednesday, August 21, 2013 23:25:34	85	84	89	96
QC Std 2	Wednesday, August 21, 2013 23:32:05	83	84	89	96
QC Std 5	Wednesday, August 21, 2013 23:38:35	83	84	91	97
QC Std 6	Wednesday, August 21, 2013 23:45:06	81	83	88	99
123649.06 MSD	Wednesday, August 21, 2013 23:51:38	102	83	84	89
123649.06 MS	Wednesday, August 21, 2013 23:58:11	102	83	83	91
123649.06 MSD	Thursday, August 22, 2013 00:04:45	102	82	83	89
123650.01	Thursday, August 22, 2013 00:37:28	92	82	85	92
123650.02	Thursday, August 22, 2013 00:44:00	92	84	86	92
123650.03	Thursday, August 22, 2013 00:50:32	102	84	87	93
QC Std 1	Thursday, August 22, 2013 00:57:05	82	82	91	99
QC Std 2	Thursday, August 22, 2013 01:03:36	81	82	92	97
QC Std 5	Thursday, August 22, 2013 01:10:06	80	83	90	97
QC Std 6	Thursday, August 22, 2013 01:16:37	79	80	87	96
123650.04	Thursday, August 22, 2013 01:23:09	101	79	81	91
123705.09	Thursday, August 22, 2013 01:29:41	93	82	92	97
123739.05	Thursday, August 22, 2013 01:36:14	95	80	89	97
123739.12	Thursday, August 22, 2013 01:42:46	102	78	82	92
123739.13	Thursday, August 22, 2013 01:49:19	91	79	83	92
123739.13 MS	Thursday, August 22, 2013 01:55:52	90	79	84	91
123739.13 MSD	Thursday, August 22, 2013 02:02:25	89	79	83	89
123739.13 MS	Thursday, August 22, 2013 02:08:57	89	78	82	89
123739.13 MSD	Thursday, August 22, 2013 02:15:30	88	78	80	89
QC Std 1	Thursday, August 22, 2013 02:28:35	81	81	89	97
QC Std 2	Thursday, August 22, 2013 02:35:06	80	81	90	96
QC Std 5	Thursday, August 22, 2013 02:41:37	81	81	89	97
QC Std 6	Thursday, August 22, 2013 02:48:07	78	79	87	95
123739.14	Thursday, August 22, 2013 03:14:17	89	77	83	92
123739.15	Thursday, August 22, 2013 03:20:50	94	79	88	98
123739.16	Thursday, August 22, 2013 03:27:23	98	79	92	102
123529.06	Thursday, August 22, 2013 03:33:56	93	112	127	121
123529.07	Thursday, August 22, 2013 03:40:29	98	77	80	89
123529.08	Thursday, August 22, 2013 03:47:03	98	78	81	90
123529.09	Thursday, August 22, 2013 03:53:36	96	78	81	90
QC Std 1	Thursday, August 22, 2013 04:00:09	81	80	89	96
QC Std 2	Thursday, August 22, 2013 04:06:40	81	81	90	96
QC Std 5	Thursday, August 22, 2013 04:13:10	81	81	88	96
QC Std 6	Thursday, August 22, 2013 04:19:41	79	80	86	96
123529.1	Thursday, August 22, 2013 04:26:13	96	78	83	90
123529.10 MS	Thursday, August 22, 2013 04:32:47	93	80	81	90
123529.10 MSD	Thursday, August 22, 2013 04:39:20	94	80	81	87
123529.11	Thursday, August 22, 2013 05:12:06	96	79	81	89
123529.12	Thursday, August 22, 2013 05:18:40	109	119	124	116
123529.13	Thursday, August 22, 2013 05:25:15	139	131	134	137

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
QC Std 1	Thursday, August 22, 2013 05:31:49	142	130	126	142
QC Std 2	Thursday, August 22, 2013 05:38:21	127	142	143	140
QC Std 5	Thursday, August 22, 2013 05:44:51	144	132	145	127
QC Std 6	Thursday, August 22, 2013 05:51:22	133	145	129	151
123529.14	Thursday, August 22, 2013 05:57:54	145	144	133	144
123529.15	Thursday, August 22, 2013 06:04:28	140	133	139	134
123529.16	Thursday, August 22, 2013 06:11:01	144	143	154	138
123529.17	Thursday, August 22, 2013 06:17:35	134	132	142	138
123529.18	Thursday, August 22, 2013 06:24:09	143	149	128	151
123529.19	Thursday, August 22, 2013 06:30:42	140	143	130	145
123529.2	Thursday, August 22, 2013 06:37:16	139	148	129	146
123529.20 MS	Thursday, August 22, 2013 06:43:50	141	152	134	150
123529.20 MSD	Thursday, August 22, 2013 06:50:23	143	134	142	138
QC Std 1	Thursday, August 22, 2013 07:03:30	135	136	133	136
QC Std 2	Thursday, August 22, 2013 07:10:02	138	154	133	153
QC Std 5	Thursday, August 22, 2013 07:16:32	130	148	123	145
QC Std 6	Thursday, August 22, 2013 07:23:02	138	133	142	137
123529.21	Thursday, August 22, 2013 07:42:44	134	139	127	149
123529.22	Thursday, August 22, 2013 07:49:18	134	141	131	143
123529.23	Thursday, August 22, 2013 07:55:52	134	137	141	131
123529.24	Thursday, August 22, 2013 08:02:26	131	131	123	137
123529.25	Thursday, August 22, 2013 08:09:00	124	148	136	136
123529.27	Thursday, August 22, 2013 08:15:34	133	146	131	139
123529.28	Thursday, August 22, 2013 08:22:08	128	142	129	141
123529.29	Thursday, August 22, 2013 08:28:42	131	131	141	129
QC Std 1	Thursday, August 22, 2013 08:35:16	131	135	144	141
QC Std 2	Thursday, August 22, 2013 08:41:47	117	135	146	133
QC Std 5	Thursday, August 22, 2013 08:48:17	119	139	132	133
QC Std 6	Thursday, August 22, 2013 08:54:48	134	131	137	131
QC Std 1	Thursday, August 22, 2013 09:33:49	86	89	93	99
QC Std 2	Thursday, August 22, 2013 09:40:21	87	88	94	98
QC Std 5	Thursday, August 22, 2013 09:46:51	86	90	95	101
QC Std 6	Thursday, August 22, 2013 09:53:22	85	88	92	100
123650.04	Thursday, August 22, 2013 10:12:53	88	88	94	100
123528.04	Thursday, August 22, 2013 10:20:40	104	91	92	98
123529.04	Thursday, August 22, 2013 10:27:12	99	91	92	98
123529.05	Thursday, August 22, 2013 10:33:44	93	85	90	99
123649.01	Thursday, August 22, 2013 10:40:16	96	88	88	95
123649.02	Thursday, August 22, 2013 10:50:38	97	89	89	96
123649.06	Thursday, August 22, 2013 10:58:07	99	89	90	99
123739.12	Thursday, August 22, 2013 11:04:40	98	88	90	98
123739.13	Thursday, August 22, 2013 11:11:13	91	88	90	97
123739.14	Thursday, August 22, 2013 11:17:46	92	86	89	98
QC Std 1	Thursday, August 22, 2013 11:24:19	85	86	93	101
QC Std 2	Thursday, August 22, 2013 11:30:50	86	87	94	99
QC Std 5	Thursday, August 22, 2013 11:37:20	86	88	93	100
QC Std 6	Thursday, August 22, 2013 11:43:51	87	86	91	99
123528.04 MS	Thursday, August 22, 2013 11:50:22	102	89	89	96
123528.04 MSD	Thursday, August 22, 2013 11:56:54	98	88	89	96
123528.04 MS	Thursday, August 22, 2013 12:03:27	98	88	88	97
123528.04 MSD	Thursday, August 22, 2013 12:10:00	98	87	89	95
123649.01 MS	Thursday, August 22, 2013 12:16:34	90	86	87	95
123649.01 MSD	Thursday, August 22, 2013 12:23:06	92	86	87	94
123649.01 MS	Thursday, August 22, 2013 12:29:39	91	83	86	93
123649.01 MSD	Thursday, August 22, 2013 12:36:11	89	84	86	91
123649.06 MS	Thursday, August 22, 2013 12:44:08	92	81	85	93
123649.06 MSD	Thursday, August 22, 2013 12:50:41	90	81	85	92
123649.06 MS	Thursday, August 22, 2013 12:57:14	89	81	84	92
123649.06 MSD	Thursday, August 22, 2013 13:03:47	88	80	83	91
123739.13 MS	Thursday, August 22, 2013 13:10:19	84	79	84	92

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123739.13 MSD	Thursday, August 22, 2013 13:16:52	83	78	84	92
123739.13 MS	Thursday, August 22, 2013 13:23:25	82	78	83	90
123739.13 MSD	Thursday, August 22, 2013 13:29:57	81	75	81	88
QC Std 1	Thursday, August 22, 2013 13:43:03	76	79	86	92
QC Std 2	Thursday, August 22, 2013 13:49:35	77	77	86	93
QC Std 5	Thursday, August 22, 2013 13:56:05	76	77	85	91
QC Std 6	Thursday, August 22, 2013 14:02:36	79	78	86	92
123528.02	Thursday, August 22, 2013 14:09:07	91	77	84	90
123528.03	Thursday, August 22, 2013 14:15:38	91	78	82	89
ICSA	Thursday, August 22, 2013 14:22:10	74	78	78	85
ICSAB	Thursday, August 22, 2013 14:28:42	74	80	80	84
QC Std 1	Thursday, August 22, 2013 14:35:14	77	79	88	93
QC Std 2	Thursday, August 22, 2013 14:41:45	76	78	87	93
QC Std 5	Thursday, August 22, 2013 14:48:16	76	77	87	92
QC Std 6	Thursday, August 22, 2013 14:54:46	75	77	84	91

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: ICSA
Sample Date/Time: Wednesday, August 21, 2013 15:31:27
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Wednesday, August 21, 2013 15:37:59
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.140194	ug/L			< 1	Ag	107	8.917385	ug/L	89.17		10
Ag	109	0.134411	ug/L			< 1	Ag	109	8.884419	ug/L	88.84		10
Al	27	44505.11	ug/L	89.01		50000	Al	27	46780.42	ug/L	93.56		50000
As	75	0.042476	ug/L			< 1	As	75	9.156372	ug/L	91.56		10
Ba	137	0.905179	ug/L			< 1	Ba	137	10.24077	ug/L	102.41		10
Ba	138	0.903509	ug/L			< 1	Ba	138	10.21001	ug/L	102.10		10
Be	9	0.105277	ug/L			< 1	Be	9	9.530525	ug/L	95.31		10
Ca	44	45609.4	ug/L	91.22		50000	Ca	44	47204.8	ug/L	94.41		50000
Cd	111	0.116276	ug/L			< 1	Cd	111	9.379985	ug/L	93.80		10
Cd	114	0.114607	ug/L			< 1	Cd	114	9.547241	ug/L	95.47		10
Co	59	0.116849	ug/L			< 1	Co	59	9.456491	ug/L	94.56		10
Cr	52	0.373557	ug/L			< 1	Cr	52	10.0154	ug/L	100.15		10
Cu	63	0.901934	ug/L			< 1	Cu	63	9.485669	ug/L	94.86		10
Cu	65	0.743279	ug/L			< 1	Cu	65	9.149498	ug/L	91.49		10
Fe	54	45560.45	ug/L	91.12		50000	Fe	54	48303.35	ug/L	96.61		50000
Fe	56	47263.18	ug/L	94.53		50000	Fe	56	49276.52	ug/L	98.55		50000
Fe	57	46736.53	ug/L	93.47		50000	Fe	57	49061.53	ug/L			50000
Ge	72		ug/L		99.185		Ge	72		ug/L		98.534	
Hg	200	0.059255	ug/L			< 0.1	Hg	200	1.045212	ug/L	104.52		1
Hg	202	0.059577	ug/L			< 0.1	Hg	202	1.043196	ug/L	104.32		1
Ho	165		ug/L		93.551		Ho	165		ug/L		93.472	
In	115		ug/L		90.634		In	115		ug/L		89.947	
K	39	45665.27	ug/L	91.33		50000	K	39	47748.98	ug/L	95.50		50000
Mg	24	43586.92	ug/L	87.17		50000	Mg	24	45139.11	ug/L	90.28		50000
Mg	25	43298.42	ug/L	86.60		50000	Mg	25	45512.59	ug/L	91.03		50000
Mn	55	0.39726	ug/L			< 5	Mn	55	9.863196	ug/L	98.63		10
Na	23	44180.44	ug/L	88.36		50000	Na	23	45884.79	ug/L	91.77		50000
Ni	60	1.718215	ug/L			1.72	Ni	60	10.93528	ug/L	92.17		10
Ni	62	0.915194	ug/L			< 1	Ni	62	10.11181	ug/L	101.12		10
P	31	44302.14	ug/L	88.60		50000	P	31	46081.4	ug/L	92.16		50000
Pb	208	0.245458	ug/L			< 1	Pb	208	9.39539	ug/L	93.95		10
Sb	121	0.255187	ug/L			< 1	Sb	121	11.56969	ug/L	115.70		10
Sb	123	0.25748	ug/L			< 1	Sb	123	11.52797	ug/L	115.28		10
Sc	45		ug/L		95.77		Sc	45		ug/L		90.492	
Se	82	-0.0654	ug/L			< 1	Se	82	8.744416	ug/L	87.44		10
Tl	205	0.047886	ug/L			< 1	Tl	205	9.279377	ug/L	92.79		10
V	51	1.254407	ug/L			1.25	V	51	11.41086	ug/L	101.56		10
Zn	64	17.7102	ug/L			17.7	Zn	64	28.34885	ug/L	106.39		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.19		2001

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		85.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.208
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 96.089
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 101.260
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.389
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.603
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 99.877
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 14:32:52
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.000698	ug/L		< 1
Ag	109	-0.000269	ug/L		< 1
Al	27	-0.26208	ug/L		< 50
As	75	-0.071958	ug/L		< 1
Ba	137	-0.002776	ug/L		< 1
Ba	138	0.000189	ug/L		< 1
Be	9	-0.011526	ug/L		< 1
Ca	44	1.285014	ug/L		< 50
Cd	111	-0.000049	ug/L		< 1
Cd	114	0.007666	ug/L		< 1
Co	59	-0.060007	ug/L		< 1
Cr	52	-0.022368	ug/L		< 1
Cu	63	0.021397	ug/L		< 1
Cu	65	0.029362	ug/L		< 1
Fe	54	-1.560302	ug/L		< 50
Fe	56	-0.512968	ug/L		< 50
Fe	57	0.03486	ug/L		< 50
Ge	72		ug/L	98.551	
Hg	200	0.000835	ug/L		< 0.2
Hg	202	-0.000297	ug/L		< 0.2
Ho	165		ug/L	99.821	
In	115		ug/L	97.623	
K	39	-1.029991	ug/L		< 50
Mg	24	-0.037408	ug/L		< 50
Mg	25	-0.113673	ug/L		< 50
Mn	55	-0.018879	ug/L		< 5
Na	23	-0.328412	ug/L		< 5000
Ni	60	0.002631	ug/L		< 1
Ni	62	-0.032413	ug/L		< 1
P	31	-0.685617	ug/L		< 50
Pb	208	-0.003873	ug/L		< 1
Sb	121	0.072129	ug/L		< 1
Sb	123	0.074335	ug/L		< 1
Sc	45		ug/L	98.465	
Se	82	0.043643	ug/L		< 1
Tl	205	-0.039816	ug/L		< 1
V	51	0.220601	ug/L		< 1
Zn	64	-1.197262	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 21, 2013 17:20:00
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.11138	ug/L		< 1
Ag	109	0.119796	ug/L		< 1
Al	27	-0.096673	ug/L		< 50
As	75	-0.107506	ug/L		< 1
Ba	137	0.009978	ug/L		< 1
Ba	138	0.013973	ug/L		< 1
Be	9	-0.013222	ug/L		< 1
Ca	44	2.131988	ug/L		< 50
Cd	111	-0.044567	ug/L		< 1
Cd	114	-0.038087	ug/L		< 1
Co	59	-0.0905	ug/L		< 1
Cr	52	0.017578	ug/L		< 1
Cu	63	0.021827	ug/L		< 1
Cu	65	0.027876	ug/L		< 1
Fe	54	-4.694121	ug/L		< 50
Fe	56	0.7008	ug/L		< 50
Fe	57	-1.756416	ug/L		< 50
Ge	72		ug/L	92.793	
Hg	200	0.000594	ug/L		< 0.2
Hg	202	-0.001332	ug/L		< 0.2
Ho	165		ug/L	95.506	
In	115		ug/L	93.097	
K	39	-2.584433	ug/L		< 50
Mg	24	-0.002752	ug/L		< 50
Mg	25	-0.129567	ug/L		< 50
Mn	55	-0.0295	ug/L		< 5
Na	23	-0.140785	ug/L		< 5000
Ni	60	0.004618	ug/L		< 1
Ni	62	-0.035148	ug/L		< 1
P	31	-4.843357	ug/L		< 50
Pb	208	-0.004769	ug/L		< 1
Sb	121	-0.001531	ug/L		< 1
Sb	123	-0.004614	ug/L		< 1
Sc	45		ug/L	92.391	
Se	82	-0.033791	ug/L		< 1
Tl	205	-0.068961	ug/L		< 1
V	51	0.347795	ug/L		< 1
Zn	64	-1.17774	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	**QC Std 1**	**Sample ID:**	**QC Std 1**
Sample Date/Time:	**Wednesday, August 21, 2013 18:51:22**	**Sample Date/Time:**	**Wednesday, August 21, 2013 20:22:45**
Sample Description:	**Blank**	**Sample Description:**	**Blank**

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.377107	ug/L		< 1	Ag	107	0.409088	ug/L		< 1
Ag	109	0.382578	ug/L		< 1	Ag	109	0.462557	ug/L		< 1
Al	27	-0.04987	ug/L		< 50	Al	27	-0.058166	ug/L		< 50
As	75	-0.029484	ug/L		< 1	As	75	0.021676	ug/L		< 1
Ba	137	0.00932	ug/L		< 1	Ba	137	0.012484	ug/L		< 1
Ba	138	0.013228	ug/L		< 1	Ba	138	0.01333	ug/L		< 1
Be	9	-0.010209	ug/L		< 1	Be	9	-0.001978	ug/L		< 1
Ca	44	-2.461743	ug/L		< 50	Ca	44	-3.15844	ug/L		< 50
Cd	111	-0.048944	ug/L		< 1	Cd	111	-0.066903	ug/L		< 1
Cd	114	-0.049447	ug/L		< 1	Cd	114	-0.07032	ug/L		< 1
Co	59	-0.098027	ug/L		< 1	Co	59	-0.099707	ug/L		< 1
Cr	52	-0.094208	ug/L		< 1	Cr	52	-0.090933	ug/L		< 1
Cu	63	0.069722	ug/L		< 1	Cu	63	0.082017	ug/L		< 1
Cu	65	0.073293	ug/L		< 1	Cu	65	0.073695	ug/L		< 1
Fe	54	-9.972305	ug/L		< 50	Fe	54	-6.674499	ug/L		< 50
Fe	56	-57.514546	ug/L		< 50	Fe	56	-55.093425	ug/L		< 50
Fe	57	-4.487256	ug/L		< 50	Fe	57	-2.961038	ug/L		< 50
Ge	72		ug/L	82.019		Ge	72		ug/L	83.541	
Hg	200	0.002538	ug/L		< 0.2	Hg	200	0.000883	ug/L		< 0.2
Hg	202	0.002077	ug/L		< 0.2	Hg	202	0.003088	ug/L		< 0.2
Ho	165		ug/L	95.831		Ho	165		ug/L	97.845	
In	115		ug/L	88.586		In	115		ug/L	89.505	
K	39	-5.938476	ug/L		< 50	K	39	-6.379123	ug/L		< 50
Mg	24	-0.05446	ug/L		< 50	Mg	24	-0.032861	ug/L		< 50
Mg	25	-0.11914	ug/L		< 50	Mg	25	-0.104743	ug/L		< 50
Mn	55	-0.02501	ug/L		< 5	Mn	55	-0.022123	ug/L		< 5
Na	23	-0.216884	ug/L		< 5000	Na	23	0.056546	ug/L		< 5000
Ni	60	0.003587	ug/L		< 1	Ni	60	0.008771	ug/L		< 1
Ni	62	-0.027874	ug/L		< 1	Ni	62	-0.024023	ug/L		< 1
P	31	0.144733	ug/L		< 50	P	31	-2.824856	ug/L		< 50
Pb	208	0.003305	ug/L		< 1	Pb	208	0.008953	ug/L		< 1
Sb	121	0.546547	ug/L		< 1	Sb	121	0.723441	ug/L		< 1
Sb	123	0.557478	ug/L		< 1	Sb	123	0.729039	ug/L		< 1
Sc	45		ug/L	83.518		Sc	45		ug/L	82.676	
Se	82	-0.069326	ug/L		< 1	Se	82	0.060139	ug/L		< 1
Tl	205	-0.058287	ug/L		< 1	Tl	205	-0.045467	ug/L		< 1
V	51	-0.169861	ug/L		< 1	V	51	-0.214544	ug/L		< 1
Zn	64	-1.200079	ug/L		< 5	Zn	64	-1.192636	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	**QC Std 1**	**Sample ID:**	**QC Std 1**
Sample Date/Time:	**Wednesday, August 21, 2013 21:54:09**	**Sample Date/Time:**	**Wednesday, August 21, 2013 23:25:34**
Sample Description:	**Blank**	**Sample Description:**	**Blank**

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.153846	ug/L		< 1	Ag	107	0.155097	ug/L		< 1
Ag	109	0.15035	ug/L		< 1	Ag	109	0.156398	ug/L		< 1
Al	27	0.013772	ug/L		< 50	Al	27	0.049873	ug/L		< 50
As	75	0.37065	ug/L		< 1	As	75	0.319848	ug/L		< 1
Ba	137	0.01947	ug/L		< 1	Ba	137	0.01958	ug/L		< 1
Ba	138	0.021745	ug/L		< 1	Ba	138	0.021384	ug/L		< 1
Be	9	0.004878	ug/L		< 1	Be	9	0.004036	ug/L		< 1
Ca	44	-5.911852	ug/L		< 50	Ca	44	-7.303539	ug/L		< 50
Cd	111	-0.060024	ug/L		< 1	Cd	111	-0.063187	ug/L		< 1
Cd	114	-0.057297	ug/L		< 1	Cd	114	-0.063347	ug/L		< 1
Co	59	-0.10566	ug/L		< 1	Co	59	-0.109626	ug/L		< 1
Cr	52	-0.083138	ug/L		< 1	Cr	52	-0.075727	ug/L		< 1
Cu	63	0.163582	ug/L		< 1	Cu	63	0.09756	ug/L		< 1
Cu	65	0.161789	ug/L		< 1	Cu	65	0.094357	ug/L		< 1
Fe	54	-0.87773	ug/L		< 50	Fe	54	-2.050464	ug/L		< 50
Fe	56	-5.326469	ug/L		< 50	Fe	56	-4.061431	ug/L		< 50
Fe	57	2.66129	ug/L		< 50	Fe	57	2.490421	ug/L		< 50
Ge	72		ug/L	85.734		Ge	72		ug/L	84.343	
Hg	200	0.007564	ug/L		< 0.2	Hg	200	0.010206	ug/L		< 0.2
Hg	202	0.007216	ug/L		< 0.2	Hg	202	0.005194	ug/L		< 0.2
Ho	165		ug/L	96.63		Ho	165		ug/L	95.521	
In	115		ug/L	90.015		In	115		ug/L	89.464	
K	39	-3.247278	ug/L		< 50	K	39	-3.193172	ug/L		< 50
Mg	24	0.269698	ug/L		< 50	Mg	24	0.229747	ug/L		< 50
Mg	25	0.317386	ug/L		< 50	Mg	25	0.143982	ug/L		< 50
Mn	55	0.018114	ug/L		< 5	Mn	55	-0.007129	ug/L		< 5
Na	23	4.750616	ug/L		< 5000	Na	23	4.091156	ug/L		< 5000
Ni	60	0.020077	ug/L		< 1	Ni	60	0.014038	ug/L		< 1
Ni	62	-0.021219	ug/L		< 1	Ni	62	-0.037908	ug/L		< 1
P	31	-0.93812	ug/L		< 50	P	31	-3.357474	ug/L		< 50
Pb	208	0.033931	ug/L		< 1	Pb	208	0.029733	ug/L		< 1
Sb	121	0.653921	ug/L		< 1	Sb	121	1.653256	ug/L		< 1
Sb	123	0.671316	ug/L		< 1	Sb	123	1.688407	ug/L		< 1
Sc	45		ug/L	85.08		Sc	45		ug/L	85.39	
Se	82	0.575163	ug/L		< 1	Se	82	0.458721	ug/L		< 1
Tl	205	0.003967	ug/L		< 1	Tl	205	-0.01207	ug/L		< 1
V	51	-0.280011	ug/L		< 1	V	51	-0.30454	ug/L		< 1
Zn	64	-1.184035	ug/L		< 5	Zn	64	-1.20593	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 00:57:05	Sample Date/Time:	Thursday, August 22, 2013 02:28:35
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.152331	ug/L		< 1	Ag	107	1.288914	ug/L		< 1
Ag	109	0.15027	ug/L		< 1	Ag	109	1.28419	ug/L		< 1
Al	27	-0.03779	ug/L		< 50	Al	27	0.044205	ug/L		< 50
As	75	0.057719	ug/L		< 1	As	75	0.225436	ug/L		< 1
Ba	137	0.010942	ug/L		< 1	Ba	137	0.018145	ug/L		< 1
Ba	138	0.015616	ug/L		< 1	Ba	138	0.017597	ug/L		< 1
Be	9	-0.011321	ug/L		< 1	Be	9	-0.003792	ug/L		< 1
Ca	44	-8.71086	ug/L		< 50	Ca	44	-9.938125	ug/L		< 50
Cd	111	-0.077656	ug/L		< 1	Cd	111	-0.061296	ug/L		< 1
Cd	114	-0.078748	ug/L		< 1	Cd	114	-0.062216	ug/L		< 1
Co	59	-0.115011	ug/L		< 1	Co	59	-0.110973	ug/L		< 1
Cr	52	-0.105174	ug/L		< 1	Cr	52	-0.064696	ug/L		< 1
Cu	63	0.036833	ug/L		< 1	Cu	63	0.072073	ug/L		< 1
Cu	65	0.037452	ug/L		< 1	Cu	65	0.06893	ug/L		< 1
Fe	54	-0.536662	ug/L		< 50	Fe	54	-3.680317	ug/L		< 50
Fe	56	-7.190913	ug/L		< 50	Fe	56	-47.09427	ug/L		< 50
Fe	57	1.44184	ug/L		< 50	Fe	57	-2.122166	ug/L		< 50
Ge	72		ug/L	82.371		Ge	72		ug/L	80.61	
Hg	200	0.001505	ug/L		< 0.2	Hg	200	0.005209	ug/L		< 0.2
Hg	202	-0.000458	ug/L		< 0.2	Hg	202	0.004294	ug/L		< 0.2
Ho	165		ug/L	98.75		Ho	165		ug/L	97.019	
In	115		ug/L	90.548		In	115		ug/L	88.977	
K	39	-3.35505	ug/L		< 50	K	39	-3.434466	ug/L		< 50
Mg	24	0.204655	ug/L		< 50	Mg	24	0.148344	ug/L		< 50
Mg	25	0.12711	ug/L		< 50	Mg	25	0.037963	ug/L		< 50
Mn	55	-0.007661	ug/L		< 5	Mn	55	0.008374	ug/L		< 5
Na	23	2.807046	ug/L		< 5000	Na	23	5.300602	ug/L		< 5000
Ni	60	0.007958	ug/L		< 1	Ni	60	0.012988	ug/L		< 1
Ni	62	-0.017392	ug/L		< 1	Ni	62	-0.005112	ug/L		< 1
P	31	-0.22554	ug/L		< 50	P	31	-2.730091	ug/L		< 50
Pb	208	0.002268	ug/L		< 1	Pb	208	0.018434	ug/L		< 1
Sb	121	0.174891	ug/L		< 1	Sb	121	1.521021	ug/L		< 1
Sb	123	0.17576	ug/L		< 1	Sb	123	1.536541	ug/L		< 1
Sc	45		ug/L	81.683		Sc	45		ug/L	80.611	
Se	82	0.112483	ug/L		< 1	Se	82	0.174458	ug/L		< 1
Tl	205	-0.069371	ug/L		< 1	Tl	205	-0.053724	ug/L		< 1
V	51	-0.328191	ug/L		< 1	V	51	-0.309052	ug/L		< 1
Zn	64	-1.232167	ug/L		< 5	Zn	64	-1.212734	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 04:00:09	Sample Date/Time:	Thursday, August 22, 2013 05:31:49
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.109538	ug/L		< 1	Ag	107	0.005663	ug/L		< 1
Ag	109	0.107885	ug/L		< 1	Ag	109	0.010628	ug/L		< 1
Al	27	-0.008883	ug/L		< 50	Al	27	-0.502926	ug/L		< 50
As	75	0.127157	ug/L		< 1	As	75	1.129123	ug/L		< 1
Ba	137	0.016023	ug/L		< 1	Ba	137	-0.010148	ug/L		< 1
Ba	138	0.016167	ug/L		< 1	Ba	138	-0.008275	ug/L		< 1
Be	9	-0.007956	ug/L		< 1	Be	9	-0.015683	ug/L		< 1
Ca	44	-11.451617	ug/L		< 50	Ca	44	-20.416826	ug/L		< 50
Cd	111	-0.077865	ug/L		< 1	Cd	111	-0.036593	ug/L		< 1
Cd	114	-0.079025	ug/L		< 1	Cd	114	-0.039959	ug/L		< 1
Co	59	-0.114875	ug/L		< 1	Co	59	0.012542	ug/L		< 1
Cr	52	-0.147268	ug/L		< 1	Cr	52	-0.491944	ug/L		< 1
Cu	63	0.032424	ug/L		< 1	Cu	63	-0.001465	ug/L		< 1
Cu	65	0.030497	ug/L		< 1	Cu	65	-0.006339	ug/L		< 1
Fe	54	-1.80897	ug/L		< 50	Fe	54	284.471578	ug/L		< 50
Fe	56	-53.642466	ug/L		< 50	Fe	56	-129.55362	ug/L		< 50
Fe	57	-0.316463	ug/L		< 50	Fe	57	-21.115797	ug/L		< 50
Ge	72		ug/L	80.444		Ge	72		ug/L	129.949	
Hg	200	0.001923	ug/L		< 0.2	Hg	200	-0.003001	ug/L		< 0.2
Hg	202	0.000235	ug/L		< 0.2	Hg	202	-0.003601	ug/L		< 0.2
Ho	165		ug/L	95.511		Ho	165		ug/L	141.908	
In	115		ug/L	88.955		In	115		ug/L	125.817	
K	39	-3.001431	ug/L		< 50	K	39	-31.826232	ug/L		< 50
Mg	24	0.309671	ug/L		< 50	Mg	24	-0.136734	ug/L		< 50
Mg	25	0.298606	ug/L		< 50	Mg	25	-0.19183	ug/L		< 50
Mn	55	0.023224	ug/L		< 5	Mn	55	0.061396	ug/L		< 5
Na	23	7.000406	ug/L		< 5000	Na	23	1.090327	ug/L		< 5000
Ni	60	0.011125	ug/L		< 1	Ni	60	-0.011478	ug/L		< 1
Ni	62	-0.026494	ug/L		< 1	Ni	62	-0.076872	ug/L		< 1
P	31	-0.44829	ug/L		< 50	P	31	26.141474	ug/L		< 50
Pb	208	0.001211	ug/L		< 1	Pb	208	-0.007794	ug/L		< 1
Sb	121	0.079278	ug/L		< 1	Sb	121	0.002988	ug/L		< 1
Sb	123	0.083749	ug/L		< 1	Sb	123	0.004551	ug/L		< 1
Sc	45		ug/L	81.009		Sc	45		ug/L	141.513	
Se	82	0.129524	ug/L		< 1	Se	82	-0.152989	ug/L		< 1
Tl	205	-0.074821	ug/L		< 1	Tl	205	-0.081941	ug/L		< 1
V	51	-0.509723	ug/L		< 1	V	51	-2.241279	ug/L		< 1
Zn	64	-1.185252	ug/L		< 5	Zn	64	-1.218836	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 07:03:30	Sample Date/Time:	Thursday, August 22, 2013 08:35:16
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	-0.00659	ug/L		< 1	Ag	107	-0.011362	ug/L		< 1
Ag	109	-0.00557	ug/L		< 1	Ag	109	-0.010194	ug/L		< 1
Al	27	-0.524824	ug/L		< 50	Al	27	-0.524517	ug/L		< 50
As	75	1.098666	ug/L		< 1	As	75	1.054567	ug/L		< 1
Ba	137	-0.010776	ug/L		< 1	Ba	137	-0.011109	ug/L		< 1
Ba	138	-0.008656	ug/L		< 1	Ba	138	-0.009079	ug/L		< 1
Be	9	-0.016149	ug/L		< 1	Be	9	-0.014621	ug/L		< 1
Ca	44	-21.314819	ug/L		< 50	Ca	44	-21.149679	ug/L		< 50
Cd	111	-0.08255	ug/L		< 1	Cd	111	-0.090107	ug/L		< 1
Cd	114	-0.085577	ug/L		< 1	Cd	114	-0.090179	ug/L		< 1
Co	59	-0.033016	ug/L		< 1	Co	59	-0.078269	ug/L		< 1
Cr	52	-0.466295	ug/L		< 1	Cr	52	-0.47418	ug/L		< 1
Cu	63	-0.001029	ug/L		< 1	Cu	63	0.0013	ug/L		< 1
Cu	65	-0.006476	ug/L		< 1	Cu	65	-0.003215	ug/L		< 1
Fe	54	318.31098	ug/L		< 50	Fe	54	319.135316	ug/L		< 50
Fe	56	-132.5125	ug/L		< 50	Fe	56	-131.81492	ug/L		< 50
Fe	57	-21.90233	ug/L		< 50	Fe	57	-21.650027	ug/L		< 50
Ge	72		ug/L	135.534		Ge	72		ug/L	135.134	
Hg	200	-0.00305	ug/L		< 0.2	Hg	200	-0.002851	ug/L		< 0.2
Hg	202	-0.00348	ug/L		< 0.2	Hg	202	-0.002412	ug/L		< 0.2
Ho	165		ug/L	135.791		Ho	165		ug/L	140.956	
In	115		ug/L	133.042		In	115		ug/L	144.07	
K	39	-33.575308	ug/L		< 50	K	39	-32.805094	ug/L		< 50
Mg	24	-0.151123	ug/L		< 50	Mg	24	-0.175153	ug/L		< 50
Mg	25	-0.243572	ug/L		< 50	Mg	25	-0.229129	ug/L		< 50
Mn	55	0.05205	ug/L		< 5	Mn	55	0.048782	ug/L		< 5
Na	23	0.12898	ug/L		< 5000	Na	23	-0.438608	ug/L		< 5000
Ni	60	-0.011384	ug/L		< 1	Ni	60	-0.011806	ug/L		< 1
Ni	62	-0.075965	ug/L		< 1	Ni	62	-0.061371	ug/L		< 1
P	31	28.414772	ug/L		< 50	P	31	27.860573	ug/L		< 50
Pb	208	-0.010717	ug/L		< 1	Pb	208	-0.011657	ug/L		< 1
Sb	121	-0.014885	ug/L		< 1	Sb	121	-0.018958	ug/L		< 1
Sb	123	-0.012852	ug/L		< 1	Sb	123	-0.017417	ug/L		< 1
Sc	45		ug/L	135.399		Sc	45		ug/L	130.84	
Se	82	-0.162972	ug/L		< 1	Se	82	-0.404338	ug/L		< 1
Tl	205	-0.092316	ug/L		< 1	Tl	205	-0.093371	ug/L		< 1
V	51	-2.302445	ug/L		< 1	V	51	-2.29718	ug/L		< 1
Zn	64	-1.419172	ug/L		< 5	Zn	64	-1.426746	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 09:33:49	Sample Date/Time:	Thursday, August 22, 2013 11:24:19
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.095298	ug/L		< 1	Ag	107	0.090915	ug/L		< 1
Ag	109	0.094355	ug/L		< 1	Ag	109	0.09819	ug/L		< 1
Al	27	0.075903	ug/L		< 50	Al	27	0.047217	ug/L		< 50
As	75	-0.03098	ug/L		< 1	As	75	-0.030436	ug/L		< 1
Ba	137	0.017392	ug/L		< 1	Ba	137	0.016176	ug/L		< 1
Ba	138	0.020186	ug/L		< 1	Ba	138	0.020659	ug/L		< 1
Be	9	-0.010611	ug/L		< 1	Be	9	-0.011288	ug/L		< 1
Ca	44	-10.604355	ug/L		< 50	Ca	44	-9.111732	ug/L		< 50
Cd	111	-0.075208	ug/L		< 1	Cd	111	-0.083692	ug/L		< 1
Cd	114	-0.07623	ug/L		< 1	Cd	114	-0.082977	ug/L		< 1
Co	59	-0.137349	ug/L		< 1	Co	59	-0.147596	ug/L		< 1
Cr	52	-0.091017	ug/L		< 1	Cr	52	-0.06319	ug/L		< 1
Cu	63	0.039414	ug/L		< 1	Cu	63	0.038297	ug/L		< 1
Cu	65	0.031906	ug/L		< 1	Cu	65	0.034062	ug/L		< 1
Fe	54	-2.138407	ug/L		< 50	Fe	54	-1.456751	ug/L		< 50
Fe	56	-10.666935	ug/L		< 50	Fe	56	-0.025537	ug/L		< 50
Fe	57	-1.390399	ug/L		< 50	Fe	57	1.652479	ug/L		< 50
Ge	72		ug/L	89.373		Ge	72		ug/L	86.417	
Hg	200	0.000491	ug/L		< 0.2	Hg	200	0.00115	ug/L		< 0.2
Hg	202	0.000466	ug/L		< 0.2	Hg	202	-0.00014	ug/L		< 0.2
Ho	165		ug/L	98.89		Ho	165		ug/L	100.905	
In	115		ug/L	92.57		In	115		ug/L	92.826	
K	39	-4.157267	ug/L		< 50	K	39	-0.314828	ug/L		< 50
Mg	24	0.574241	ug/L		< 50	Mg	24	0.573024	ug/L		< 50
Mg	25	0.636205	ug/L		< 50	Mg	25	0.393241	ug/L		< 50
Mn	55	0.021759	ug/L		< 5	Mn	55	0.02926	ug/L		< 5
Na	23	2.780659	ug/L		< 5000	Na	23	4.257669	ug/L		< 5000
Ni	60	0.005989	ug/L		< 1	Ni	60	0.00676	ug/L		< 1
Ni	62	-0.005599	ug/L		< 1	Ni	62	-0.003664	ug/L		< 1
P	31	-0.173755	ug/L		< 50	P	31	0.06278	ug/L		< 50
Pb	208	0.001538	ug/L		< 1	Pb	208	0.000639	ug/L		< 1
Sb	121	0.078009	ug/L		< 1	Sb	121	0.071262	ug/L		< 1
Sb	123	0.087634	ug/L		< 1	Sb	123	0.071033	ug/L		< 1
Sc	45		ug/L	85.875		Sc	45		ug/L	85.343	
Se	82	0.043633	ug/L		< 1	Se	82	0.023146	ug/L		< 1
Tl	205	-0.073163	ug/L		< 1	Tl	205	-0.073176	ug/L		< 1
V	51	-0.596453	ug/L		< 1	V	51	-0.366388	ug/L		< 1
Zn	64	-1.105696	ug/L		< 5	Zn	64	-1.165944	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 13:43:03	Sample Date/Time:	Thursday, August 22, 2013 14:35:14
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.655126	ug/L		< 1	Ag	107	0.222791	ug/L		< 1
Ag	109	0.640631	ug/L		< 1	Ag	109	0.224883	ug/L		< 1
Al	27	0.09732	ug/L		< 50	Al	27	0.500197	ug/L		< 50
As	75	0.128392	ug/L		< 1	As	75	-0.06713	ug/L		< 1
Ba	137	0.023246	ug/L		< 1	Ba	137	0.017237	ug/L		< 1
Ba	138	0.021737	ug/L		< 1	Ba	138	0.021829	ug/L		< 1
Be	9	-0.002378	ug/L		< 1	Be	9	-0.010387	ug/L		< 1
Ca	44	-7.47435	ug/L		< 50	Ca	44	-8.265958	ug/L		< 50
Cd	111	-0.067233	ug/L		< 1	Cd	111	-0.081584	ug/L		< 1
Cd	114	-0.073002	ug/L		< 1	Cd	114	-0.085964	ug/L		< 1
Co	59	-0.14108	ug/L		< 1	Co	59	-0.146151	ug/L		< 1
Cr	52	-0.041862	ug/L		< 1	Cr	52	-0.045782	ug/L		< 1
Cu	63	0.072079	ug/L		< 1	Cu	63	0.041847	ug/L		< 1
Cu	65	0.082805	ug/L		< 1	Cu	65	0.035843	ug/L		< 1
Fe	54	-1.0619	ug/L		< 50	Fe	54	4.533522	ug/L		< 50
Fe	56	-40.680423	ug/L		< 50	Fe	56	-35.057302	ug/L		< 50
Fe	57	2.699095	ug/L		< 50	Fe	57	8.174603	ug/L		< 50
Ge	72		ug/L	79.059		Ge	72		ug/L	79.142	
Hg	200	0.003667	ug/L		< 0.2	Hg	200	0.007184	ug/L		< 0.2
Hg	202	0.003752	ug/L		< 0.2	Hg	202	0.007401	ug/L		< 0.2
Ho	165		ug/L	92.372		Ho	165		ug/L	93.451	
In	115		ug/L	86.481		In	115		ug/L	87.75	
K	39	-0.06939	ug/L		< 50	K	39	0.959589	ug/L		< 50
Mg	24	0.658856	ug/L		< 50	Mg	24	0.990964	ug/L		< 50
Mg	25	0.529086	ug/L		< 50	Mg	25	0.888904	ug/L		< 50
Mn	55	0.027991	ug/L		< 5	Mn	55	0.014971	ug/L		< 5
Na	23	4.666609	ug/L		< 5000	Na	23	5.109504	ug/L		< 5000
Ni	60	0.013484	ug/L		< 1	Ni	60	0.00981	ug/L		< 1
Ni	62	-0.013687	ug/L		< 1	Ni	62	-0.00789	ug/L		< 1
P	31	0.073182	ug/L		< 50	P	31	0.284032	ug/L		< 50
Pb	208	0.015682	ug/L		< 1	Pb	208	0.007423	ug/L		< 1
Sb	121	1.267409	ug/L		< 1	Sb	121	0.253468	ug/L		< 1
Sb	123	1.287874	ug/L		< 1	Sb	123	0.258929	ug/L		< 1
Sc	45		ug/L	76.201		Sc	45		ug/L	76.542	
Se	82	0.150628	ug/L		< 1	Se	82	0.06488	ug/L		< 1
Tl	205	-0.044337	ug/L		< 1	Tl	205	-0.051882	ug/L		< 1
V	51	-0.220549	ug/L		< 1	V	51	-0.227237	ug/L		< 1
Zn	64	-1.142322	ug/L		< 5	Zn	64	-0.728753	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 14:39:23
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	102.957433	ug/L	102.752		100
As	75	100.439215	ug/L	99.543		100
Ba	137	100.954156	ug/L	100.652		100
Be	9	99.91138	ug/L	100.011		100
Ca	44	102.168124	ug/L	101.357		100
Cd	111	103.589228	ug/L	103.589		100
Cd	114	102.611044	ug/L	102.611		100
Co	59	101.979381	ug/L	101.878		100
Cr	52	101.343236	ug/L	100.839		100
Cu	63	100.950187	ug/L	101.356		100
Cu	65	100.175411	ug/L	100.578		100
Fe	54	107.117132	ug/L	106.584		100
Fe	57	99.590852	ug/L	99.095		100
Ge	72		ug/L		97.64	
Hg	200	1.019293	ug/L	101.929		1
Hg	202	1.040778	ug/L	104.078		1
Ho	165		ug/L		100.126	
In	115		ug/L		98.023	
K	39	994.508725	ug/L	98.662		1000
Mg	24	103.781446	ug/L	103.368		100
Mg	25	101.910134	ug/L	101.504		100
Mn	55	101.057709	ug/L	100.455		100
Na	23	100.277066	ug/L	98.795		100
Ni	60	102.584982	ug/L	102.176		100
Ni	62	102.933276	ug/L	102.523		100
Pb	208	99.694126	ug/L	98.903		100
Sb	121	100.398697	ug/L	99.999		100
Sb	123	100.622444	ug/L	100.222		100
Sc	45		ug/L		98.421	
Se	82	101.043546	ug/L	100.043		100
Tl	205	99.216104	ug/L	99.515		100
V	51	101.059419	ug/L	100.059		100
Zn	64	107.272953	ug/L	106.846		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 17:26:31
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	99.783334	ug/L	99.584		100
As	75	99.709261	ug/L	98.82		100
Ba	137	97.051353	ug/L	96.761		100
Be	9	99.748338	ug/L	99.848		100
Ca	44	100.748608	ug/L	99.949		100
Cd	111	101.681344	ug/L	101.681		100
Cd	114	102.66791	ug/L	102.668		100
Co	59	99.256405	ug/L	99.157		100
Cr	52	102.258147	ug/L	101.749		100
Cu	63	103.239509	ug/L	103.654		100
Cu	65	103.072014	ug/L	103.486		100
Fe	54	103.964219	ug/L	103.447		100
Fe	57	96.3628	ug/L	95.883		100
Ge	72		ug/L		91.133	
Hg	200	1.035935	ug/L	103.593		1
Hg	202	1.040768	ug/L	104.077		1
Ho	165		ug/L		97.044	
In	115		ug/L		94.253	
K	39	960.135626	ug/L	95.252		1000
Mg	24	98.319154	ug/L	97.927		100
Mg	25	96.031291	ug/L	95.649		100
Mn	55	98.959577	ug/L	98.369		100
Na	23	96.168791	ug/L	94.748		100
Ni	60	100.55402	ug/L	100.153		100
Ni	62	102.661248	ug/L	102.252		100
Pb	208	98.323004	ug/L	97.543		100
Sb	121	99.99654	ug/L	99.598		100
Sb	123	99.453167	ug/L	99.057		100
Sc	45		ug/L		90.352	
Se	82	100.579086	ug/L	99.583		100
Tl	205	97.452476	ug/L	97.746		100
V	51	101.271779	ug/L	100.269		100
Zn	64	109.836832	ug/L	109.399		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 14:58:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9823.47862	ug/L	98.235		10000
Ca	44	9663.27108	ug/L	96.633		10000
Fe	54	9710.73717	ug/L	97.107		10000
Fe	56	9802.32125	ug/L	98.023		10000
Fe	57	9872.15178	ug/L	98.722		10000
Ge	72		ug/L		97.852	
Ho	165		ug/L		98.901	
In	115		ug/L		96.311	
K	39	9840.01997	ug/L	98.4		10000
Mg	24	9880.11872	ug/L	98.801		10000
Mg	25	9759.45121	ug/L	97.595		10000
Na	23	9883.02508	ug/L	98.83		10000
P	31	9713.82327	ug/L	97.138		10000
Sc	45		ug/L		97.978	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 17:39:32
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9489.60818	ug/L	94.896		10000
Ca	44	9476.5712	ug/L	94.766		10000
Fe	54	9340.30755	ug/L	93.403		10000
Fe	56	9343.2867	ug/L	93.433		10000
Fe	57	9405.50488	ug/L	94.055		10000
Ge	72		ug/L		89.075	
Ho	165		ug/L		94.664	
In	115		ug/L		90.801	
K	39	9289.57865	ug/L	92.896		10000
Mg	24	8956.63881	ug/L	89.566		10000
Mg	25	8963.69564	ug/L	89.637		10000
Na	23	9024.94466	ug/L	90.249		10000
P	31	9411.4984	ug/L	94.115		10000
Sc	45		ug/L		89.775	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 14:52:24
Sample Description: CV - Trace Metals 2

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 21, 2013 17:33:02
Sample Description: CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.666144	ug/L	108.251		31.1	Ag	107	33.216111	ug/L	106.804		31.1
Ag	109	33.528061	ug/L	107.807		31.1	Ag	109	33.401584	ug/L	107.401		31.1
Al	27	175.79957	ug/L	108.518		162	Al	27	170.207121	ug/L	105.066		162
As	75	44.004738	ug/L	108.654		40.5	As	75	42.89123	ug/L	105.904		40.5
Ba	137	26.819208	ug/L	101.974		26.3	Ba	137	26.746419	ug/L	101.697		26.3
Be	9	57.677018	ug/L	108.212		53.3	Be	9	57.545865	ug/L	107.966		53.3
Cd	111	48.935119	ug/L	101.525		48.2	Cd	111	48.594241	ug/L	100.818		48.2
Cd	114	49.027357	ug/L	101.717		48.2	Cd	114	49.108289	ug/L	101.884		48.2
Co	59	26.704507	ug/L	108.555		24.6	Co	59	26.02674	ug/L	105.8		24.6
Cr	52	12.125672	ug/L	105.441		11.5	Cr	52	11.823609	ug/L	102.814		11.5
Cu	63	29.535617	ug/L	105.484		28	Cu	63	29.501355	ug/L	105.362		28
Cu	65	29.324751	ug/L	104.731		28	Cu	65	29.265666	ug/L	104.52		28
Fe	54	49.158941	ug/L	110.718		44.4	Fe	54	45.209039	ug/L	101.822		44.4
Fe	57	48.011563	ug/L	108.134		44.4	Fe	57	41.252547	ug/L	92.911		44.4
Ge	72		ug/L		96.994		Ge	72		ug/L		90.92	
Hg	200	1.073622	ug/L	107.362		1	Hg	200	1.054498	ug/L	105.45		1
Hg	202	1.06403	ug/L	106.403		1	Hg	202	1.056758	ug/L	105.676		1
Ho	165		ug/L		98.773		Ho	165		ug/L		95.67	
In	115		ug/L		97.432		In	115		ug/L		91.805	
Mn	55	156.696069	ug/L	105.876		148	Mn	55	152.821227	ug/L	103.258		148
Ni	60	37.877474	ug/L	104.924		36.1	Ni	60	36.916631	ug/L	102.262		36.1
Ni	62	37.770046	ug/L	104.626		36.1	Ni	62	37.182033	ug/L	102.997		36.1
Pb	208	140.241661	ug/L	102.366		137	Pb	208	140.83278	ug/L	102.798		137
Sb	121	77.130222	ug/L	120.894		63.8	Sb	121	78.676941	ug/L	123.318		63.8
Sb	123	78.14608	ug/L	122.486		63.8	Sb	123	79.081144	ug/L	123.952		63.8
Sc	45		ug/L		97.791		Sc	45		ug/L		89.874	
Se	82	170.349456	ug/L	105.154		162	Se	82	163.258818	ug/L	100.777		162
Tl	205	29.143939	ug/L	104.834		27.8	Tl	205	28.779001	ug/L	103.522		27.8
V	51	146.163334	ug/L	102.932		142	V	51	145.251347	ug/L	102.29		142
Zn	64	136.871927	ug/L	108.629		126	Zn	64	134.909895	ug/L	107.071		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 18:57:53
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.48276	ug/L	103.276		100
As	75	99.678076	ug/L	98.789		100
Ba	137	101.424864	ug/L	101.121		100
Be	9	107.237422	ug/L	107.345		100
Ca	44	99.505404	ug/L	98.716		100
Cd	111	103.883761	ug/L	103.884		100
Cd	114	105.566007	ug/L	105.566		100
Co	59	97.876541	ug/L	97.779		100
Cr	52	100.107223	ug/L	99.609		100
Cu	63	102.27686	ug/L	102.688		100
Cu	65	103.008968	ug/L	103.423		100
Fe	54	98.248348	ug/L	97.76		100
Fe	57	89.755526	ug/L	89.309		100
Ge	72		ug/L		82.732	
Hg	200	1.069217	ug/L	106.922		1
Hg	202	1.082203	ug/L	108.22		1
Ho	165		ug/L		94.663	
In	115		ug/L		87.705	
K	39	948.714601	ug/L	94.119		1000
Mg	24	99.317125	ug/L	98.921		100
Mg	25	97.694613	ug/L	97.305		100
Mn	55	97.083947	ug/L	96.505		100
Na	23	97.926622	ug/L	96.479		100
Ni	60	99.931756	ug/L	99.534		100
Ni	62	101.122532	ug/L	100.72		100
Pb	208	104.220792	ug/L	103.394		100
Sb	121	103.564096	ug/L	103.151		100
Sb	123	105.370593	ug/L	104.951		100
Sc	45		ug/L		83.349	
Se	82	102.66377	ug/L	101.647		100
Tl	205	102.083183	ug/L	102.39		100
V	51	99.948537	ug/L	98.959		100
Zn	64	111.868594	ug/L	111.423		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 20:29:16
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	100.063248	ug/L	99.864		100
As	75	98.854897	ug/L	97.973		100
Ba	137	98.407145	ug/L	98.113		100
Be	9	103.924109	ug/L	104.028		100
Ca	44	95.368514	ug/L	94.612		100
Cd	111	100.908783	ug/L	100.909		100
Cd	114	102.829772	ug/L	102.83		100
Co	59	97.388481	ug/L	97.291		100
Cr	52	99.582672	ug/L	99.087		100
Cu	63	102.170272	ug/L	102.581		100
Cu	65	102.78435	ug/L	103.197		100
Fe	54	96.603922	ug/L	96.123		100
Fe	57	90.310525	ug/L	89.861		100
Ge	72		ug/L		82.859	
Hg	200	1.014893	ug/L	101.489		1
Hg	202	1.036762	ug/L	103.676		1
Ho	165		ug/L		97.839	
In	115		ug/L		90.43	
K	39	929.517715	ug/L	92.214		1000
Mg	24	97.583939	ug/L	97.195		100
Mg	25	96.371483	ug/L	95.988		100
Mn	55	96.222644	ug/L	95.649		100
Na	23	94.867561	ug/L	93.466		100
Ni	60	99.787099	ug/L	99.39		100
Ni	62	100.716791	ug/L	100.316		100
Pb	208	101.118943	ug/L	100.316		100
Sb	121	101.603508	ug/L	101.199		100
Sb	123	101.96027	ug/L	101.554		100
Sc	45		ug/L		83.318	
Se	82	101.690178	ug/L	100.683		100
Tl	205	99.868488	ug/L	100.169		100
V	51	99.064993	ug/L	98.084		100
Zn	64	110.300389	ug/L	109.861		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 19:10:54
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9506.81159	ug/L	95.068		10000
Ca	44	9429.83015	ug/L	94.298		10000
Fe	54	9114.44314	ug/L	91.144		10000
Fe	56	9188.16986	ug/L	91.882		10000
Fe	57	9259.29638	ug/L	92.593		10000
Ge	72		ug/L		85.485	
Ho	165		ug/L		96.28	
In	115		ug/L		88.195	
K	39	9133.94305	ug/L	91.339		10000
Mg	24	9107.17615	ug/L	91.072		10000
Mg	25	9113.08412	ug/L	91.131		10000
Na	23	9142.69945	ug/L	91.427		10000
P	31	9237.4397	ug/L	92.374		10000
Sc	45		ug/L		87.483	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 20:42:17
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9644.85182	ug/L	96.449		10000
Ca	44	9513.19033	ug/L	95.132		10000
Fe	54	9321.52027	ug/L	93.215		10000
Fe	56	9397.11838	ug/L	93.971		10000
Fe	57	9522.68438	ug/L	95.227		10000
Ge	72		ug/L		82.267	
Ho	165		ug/L		96.12	
In	115		ug/L		85.876	
K	39	9123.01039	ug/L	91.23		10000
Mg	24	9115.36461	ug/L	91.154		10000
Mg	25	9076.8622	ug/L	90.769		10000
Na	23	9186.42576	ug/L	91.864		10000
P	31	9240.66309	ug/L	92.407		10000
Sc	45		ug/L		82.243	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 19:04:23	Sample Date/Time:	Wednesday, August 21, 2013 20:35:46
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.505721	ug/L	104.52		31.1	Ag	107	32.3298	ug/L	103.954		31.1
Ag	109	32.243043	ug/L	103.675		31.1	Ag	109	32.405125	ug/L	104.197		31.1
Al	27	169.877405	ug/L	104.863		162	Al	27	169.56866	ug/L	104.672		162
As	75	43.649422	ug/L	107.776		40.5	As	75	44.047956	ug/L	108.76		40.5
Ba	137	26.539059	ug/L	100.909		26.3	Ba	137	26.253222	ug/L	99.822		26.3
Be	9	58.537574	ug/L	109.827		53.3	Be	9	58.869324	ug/L	110.449		53.3
Cd	111	47.686438	ug/L	98.935		48.2	Cd	111	47.596193	ug/L	98.747		48.2
Cd	114	48.50097	ug/L	100.624		48.2	Cd	114	47.957987	ug/L	99.498		48.2
Co	59	24.967966	ug/L	101.496		24.6	Co	59	25.561943	ug/L	103.91		24.6
Cr	52	11.295588	ug/L	98.223		11.5	Cr	52	11.612332	ug/L	100.977		11.5
Cu	63	28.509718	ug/L	101.82		28	Cu	63	29.183414	ug/L	104.226		28
Cu	65	28.505075	ug/L	101.804		28	Cu	65	29.283253	ug/L	104.583		28
Fe	54	36.488238	ug/L	82.181		44.4	Fe	54	39.649689	ug/L	89.301		44.4
Fe	57	37.63998	ug/L	84.775		44.4	Fe	57	39.628776	ug/L	89.254		44.4
Ge	72		ug/L		83.794		Ge	72		ug/L		82.957	
Hg	200	1.079841	ug/L	107.984		1	Hg	200	1.042653	ug/L	104.265		1
Hg	202	1.075676	ug/L	107.568		1	Hg	202	1.053038	ug/L	105.304		1
Ho	165		ug/L		94.617		Ho	165		ug/L		96.96	
In	115		ug/L		89.825		In	115		ug/L		90.311	
Mn	55	146.325811	ug/L	98.869		148	Mn	55	149.386866	ug/L	100.937		148
Ni	60	35.354291	ug/L	97.934		36.1	Ni	60	36.380882	ug/L	100.778		36.1
Ni	62	35.812885	ug/L	99.205		36.1	Ni	62	36.737082	ug/L	101.765		36.1
Pb	208	142.748232	ug/L	104.196		137	Pb	208	139.712907	ug/L	101.98		137
Sb	121	78.438027	ug/L	122.944		63.8	Sb	121	77.567572	ug/L	121.579		63.8
Sb	123	79.381895	ug/L	124.423		63.8	Sb	123	77.733594	ug/L	121.839		63.8
Sc	45		ug/L		85.798		Sc	45		ug/L		83.441	
Se	82	168.196615	ug/L	103.825		162	Se	82	170.175299	ug/L	105.046		162
Tl	205	29.939774	ug/L	107.697		27.8	Tl	205	28.521962	ug/L	102.597		27.8
V	51	138.465296	ug/L	97.511		142	V	51	142.922273	ug/L	100.649		142
Zn	64	132.284935	ug/L	104.988		126	Zn	64	134.514816	ug/L	106.758		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 22:00:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	101.581946	ug/L	101.379		100
As	75	100.124302	ug/L	99.231		100
Ba	137	99.464134	ug/L	99.167		100
Be	9	106.23908	ug/L	106.345		100
Ca	44	93.579186	ug/L	92.836		100
Cd	111	101.846439	ug/L	101.846		100
Cd	114	103.634156	ug/L	103.634		100
Co	59	99.366315	ug/L	99.267		100
Cr	52	102.352662	ug/L	101.843		100
Cu	63	102.119056	ug/L	102.529		100
Cu	65	102.932898	ug/L	103.346		100
Fe	54	102.164173	ug/L	101.656		100
Fe	57	96.137491	ug/L	95.659		100
Ge	72		ug/L		83.496	
Hg	200	1.052562	ug/L	105.256		1
Hg	202	1.048049	ug/L	104.805		1
Ho	165		ug/L		96.217	
In	115		ug/L		90.488	
K	39	951.868003	ug/L	94.431		1000
Mg	24	99.280468	ug/L	98.885		100
Mg	25	98.34555	ug/L	97.954		100
Mn	55	99.689011	ug/L	99.094		100
Na	23	101.487361	ug/L	99.988		100
Ni	60	100.976142	ug/L	100.574		100
Ni	62	102.81994	ug/L	102.41		100
Pb	208	102.867077	ug/L	102.051		100
Sb	121	102.34235	ug/L	101.935		100
Sb	123	103.734748	ug/L	103.321		100
Sc	45		ug/L		82.666	
Se	82	102.147598	ug/L	101.136		100
Tl	205	102.2415	ug/L	102.549		100
V	51	101.039505	ug/L	100.039		100
Zn	64	109.843572	ug/L	109.406		100

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 21, 2013 23:32:05
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.340436	ug/L	103.134		100
As	75	98.839808	ug/L	97.958		100
Ba	137	100.564748	ug/L	100.264		100
Be	9	106.481937	ug/L	106.589		100
Ca	44	93.345774	ug/L	92.605		100
Cd	111	102.548393	ug/L	102.548		100
Cd	114	104.016706	ug/L	104.017		100
Co	59	100.140623	ug/L	100.041		100
Cr	52	101.896086	ug/L	101.389		100
Cu	63	101.568198	ug/L	101.976		100
Cu	65	101.406845	ug/L	101.814		100
Fe	54	104.119136	ug/L	103.601		100
Fe	57	101.78911	ug/L	101.283		100
Ge	72		ug/L		83.935	
Hg	200	1.028688	ug/L	102.869		1
Hg	202	1.010936	ug/L	101.094		1
Ho	165		ug/L		96.308	
In	115		ug/L		88.761	
K	39	968.325271	ug/L	96.064		1000
Mg	24	101.567197	ug/L	101.163		100
Mg	25	99.584933	ug/L	99.188		100
Mn	55	100.529382	ug/L	99.93		100
Na	23	102.465509	ug/L	100.951		100
Ni	60	100.714073	ug/L	100.313		100
Ni	62	101.656859	ug/L	101.252		100
Pb	208	101.482287	ug/L	100.677		100
Sb	121	104.556333	ug/L	104.14		100
Sb	123	105.711459	ug/L	105.29		100
Sc	45		ug/L		82.712	
Se	82	101.162641	ug/L	100.161		100
Tl	205	100.631693	ug/L	100.934		100
V	51	101.588788	ug/L	100.583		100
Zn	64	110.357783	ug/L	109.918		100

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 22:13:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9701.94504	ug/L	97.019		10000
Ca	44	9527.91234	ug/L	95.279		10000
Fe	54	9628.72546	ug/L	96.287		10000
Fe	56	9678.55292	ug/L	96.786		10000
Fe	57	9727.71214	ug/L	97.277		10000
Ge	72		ug/L		81.275	
Ho	165		ug/L		95.392	
In	115		ug/L		85.527	
K	39	9171.54904	ug/L	91.715		10000
Mg	24	9270.69376	ug/L	92.707		10000
Mg	25	9262.49936	ug/L	92.625		10000
Na	23	9231.17866	ug/L	92.312		10000
P	31	9358.45984	ug/L	93.585		10000
Sc	45		ug/L		80.819	

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 21, 2013 23:45:06
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9871.28963	ug/L	98.713		10000
Ca	44	9587.21249	ug/L	95.872		10000
Fe	54	9725.91813	ug/L	97.259		10000
Fe	56	9711.42303	ug/L	97.114		10000
Fe	57	9927.84612	ug/L	99.278		10000
Ge	72		ug/L		82.579	
Ho	165		ug/L		98.972	
In	115		ug/L		88.478	
K	39	9440.04545	ug/L	94.4		10000
Mg	24	9493.29976	ug/L	94.933		10000
Mg	25	9538.07073	ug/L	95.381		10000
Na	23	9509.70247	ug/L	95.097		10000
P	31	9510.15143	ug/L	95.102		10000
Sc	45		ug/L		81.375	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Wednesday, August 21, 2013 22:07:10	Sample Date/Time:	Wednesday, August 21, 2013 23:38:35
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.122006	ug/L	103.286		31.1	Ag	107	32.463388	ug/L	104.384		31.1
Ag	109	32.406514	ug/L	104.201		31.1	Ag	109	32.302451	ug/L	103.866		31.1
Al	27	172.409828	ug/L	106.426		162	Al	27	174.491333	ug/L	107.711		162
As	75	43.691029	ug/L	107.879		40.5	As	75	42.471663	ug/L	104.868		40.5
Ba	137	26.650409	ug/L	101.332		26.3	Ba	137	26.754336	ug/L	101.728		26.3
Be	9	61.205936	ug/L	114.833		53.3	Be	9	60.690738	ug/L	113.866		53.3
Cd	111	47.759383	ug/L	99.086		48.2	Cd	111	47.346007	ug/L	98.228		48.2
Cd	114	48.474858	ug/L	100.57		48.2	Cd	114	47.882028	ug/L	99.34		48.2
Co	59	26.118623	ug/L	106.173		24.6	Co	59	25.845652	ug/L	105.064		24.6
Cr	52	11.967553	ug/L	104.066		11.5	Cr	52	12.003743	ug/L	104.38		11.5
Cu	63	29.553261	ug/L	105.547		28	Cu	63	28.911723	ug/L	103.256		28
Cu	65	29.631293	ug/L	105.826		28	Cu	65	29.021877	ug/L	103.65		28
Fe	54	45.005076	ug/L	101.363		44.4	Fe	54	44.633594	ug/L	100.526		44.4
Fe	57	43.961477	ug/L	99.012		44.4	Fe	57	42.879625	ug/L	96.576		44.4
Ge	72		ug/L		82.987		Ge	72		ug/L		84.408	
Hg	200	1.075452	ug/L	107.545		1	Hg	200	1.054294	ug/L	105.429		1
Hg	202	1.079242	ug/L	107.924		1	Hg	202	1.080888	ug/L	108.089		1
Ho	165		ug/L		96.43		Ho	165		ug/L		96.53	
In	115		ug/L		89.864		In	115		ug/L		90.941	
Mn	55	154.919967	ug/L	104.676		148	Mn	55	154.353238	ug/L	104.293		148
Ni	60	36.717373	ug/L	101.71		36.1	Ni	60	36.546834	ug/L	101.238		36.1
Ni	62	36.863688	ug/L	102.115		36.1	Ni	62	36.641706	ug/L	101.501		36.1
Pb	208	142.525749	ug/L	104.033		137	Pb	208	143.425596	ug/L	104.69		137
Sb	121	78.28244	ug/L	122.7		63.8	Sb	121	78.539566	ug/L	123.103		63.8
Sb	123	79.475218	ug/L	124.569		63.8	Sb	123	79.130975	ug/L	124.03		63.8
Sc	45		ug/L		81.59		Sc	45		ug/L		83.166	
Se	82	168.991176	ug/L	104.316		162	Se	82	166.059848	ug/L	102.506		162
Tl	205	29.147718	ug/L	104.848		27.8	Tl	205	29.612348	ug/L	106.519		27.8
V	51	146.840673	ug/L	103.409		142	V	51	146.608737	ug/L	103.246		142
Zn	64	137.091209	ug/L	108.803		126	Zn	64	135.788849	ug/L	107.769		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 01:03:36
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.237623	ug/L	103.032		100
As	75	100.330761	ug/L	99.436		100
Ba	137	98.433698	ug/L	98.139		100
Be	9	108.464754	ug/L	108.573		100
Ca	44	90.818862	ug/L	90.098		100
Cd	111	100.445725	ug/L	100.446		100
Cd	114	101.603777	ug/L	101.604		100
Co	59	99.762001	ug/L	99.662		100
Cr	52	102.670376	ug/L	102.16		100
Cu	63	102.198541	ug/L	102.609		100
Cu	65	103.345647	ug/L	103.761		100
Fe	54	102.970394	ug/L	102.458		100
Fe	57	97.280473	ug/L	96.796		100
Ge	72		ug/L		82.227	
Hg	200	1.023065	ug/L	102.307		1
Hg	202	1.05482	ug/L	105.482		1
Ho	165		ug/L		97.497	
In	115		ug/L		91.708	
K	39	964.266885	ug/L	95.661		1000
Mg	24	100.974886	ug/L	100.573		100
Mg	25	98.695309	ug/L	98.302		100
Mn	55	100.349553	ug/L	99.751		100
Na	23	101.932617	ug/L	100.426		100
Ni	60	101.068662	ug/L	100.666		100
Ni	62	102.107322	ug/L	101.701		100
Pb	208	102.027257	ug/L	101.218		100
Sb	121	100.50455	ug/L	100.104		100
Sb	123	101.509342	ug/L	101.105		100
Sc	45		ug/L		80.925	
Se	82	104.491413	ug/L	103.457		100
Tl	205	102.294975	ug/L	102.603		100
V	51	101.305442	ug/L	100.302		100
Zn	64	112.316146	ug/L	111.869		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 02:35:06
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	105.136885	ug/L	104.927		100
As	75	100.572687	ug/L	99.676		100
Ba	137	98.6439	ug/L	98.349		100
Be	9	111.012061	ug/L	111.123		100
Ca	44	93.909839	ug/L	93.165		100
Cd	111	101.97379	ug/L	101.974		100
Cd	114	102.787416	ug/L	102.787		100
Co	59	101.941103	ug/L	101.839		100
Cr	52	103.326398	ug/L	102.812		100
Cu	63	101.177756	ug/L	101.584		100
Cu	65	101.710625	ug/L	102.119		100
Fe	54	104.506331	ug/L	103.986		100
Fe	57	100.465645	ug/L	99.966		100
Ge	72		ug/L		81.18	
Hg	200	1.025744	ug/L	102.574		1
Hg	202	1.047416	ug/L	104.742		1
Ho	165		ug/L		95.586	
In	115		ug/L		90.046	
K	39	978.5463	ug/L	97.078		1000
Mg	24	104.436553	ug/L	104.02		100
Mg	25	104.031209	ug/L	103.617		100
Mn	55	103.088777	ug/L	102.474		100
Na	23	107.801134	ug/L	106.208		100
Ni	60	101.499262	ug/L	101.095		100
Ni	62	101.041718	ug/L	100.639		100
Pb	208	102.124459	ug/L	101.314		100
Sb	121	103.190758	ug/L	102.78		100
Sb	123	103.794078	ug/L	103.381		100
Sc	45		ug/L		80.224	
Se	82	105.224068	ug/L	104.182		100
Tl	205	100.216776	ug/L	100.518		100
V	51	102.602148	ug/L	101.586		100
Zn	64	110.89242	ug/L	110.451		100

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 01:16:37
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9947.91031	ug/L	99.479		10000
Ca	44	9618.79316	ug/L	96.188		10000
Fe	54	9692.19588	ug/L	96.922		10000
Fe	56	9710.82769	ug/L	97.108		10000
Fe	57	9825.60154	ug/L	98.256		10000
Ge	72		ug/L		80.48	
Ho	165		ug/L		96.383	
In	115		ug/L		87.145	
K	39	9360.41934	ug/L	93.604		10000
Mg	24	9515.10622	ug/L	95.151		10000
Mg	25	9548.04223	ug/L	95.48		10000
Na	23	9733.78561	ug/L	97.338		10000
P	31	9557.40292	ug/L	95.574		10000
Sc	45		ug/L		79.264	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 02:48:07
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10030.9411	ug/L	100.309		10000
Ca	44	9709.33364	ug/L	97.093		10000
Fe	54	9914.82148	ug/L	99.148		10000
Fe	56	9979.37248	ug/L	99.794		10000
Fe	57	10140.3062	ug/L	101.403		10000
Ge	72		ug/L		79.051	
Ho	165		ug/L		95.332	
In	115		ug/L		87.216	
K	39	9419.45677	ug/L	94.195		10000
Mg	24	9636.25431	ug/L	96.363		10000
Mg	25	9559.26659	ug/L	95.593		10000
Na	23	9750.6494	ug/L	97.506		10000
P	31	9614.34551	ug/L	96.143		10000
Sc	45		ug/L		78.041	

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

ıple ID:	QC Std 5	Sample ID:	QC Std 5
ıple Date/Time:	Thursday, August 22, 2013 01:10:06	Sample Date/Time:	Thursday, August 22, 2013 02:41:37
ıple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

centration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
lyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
	107	32.085084	ug/L	103.167		31.1	Ag	107	32.40122	ug/L	104.184		31.1
	109	32.283397	ug/L	103.805		31.1	Ag	109	32.681402	ug/L	105.085		31.1
	27	176.628105	ug/L	109.03		162	Al	27	175.971114	ug/L	108.624		162
	75	43.800976	ug/L	108.151		40.5	As	75	43.433784	ug/L	107.244		40.5
	137	26.837539	ug/L	102.044		26.3	Ba	137	26.985416	ug/L	102.606		26.3
	9	61.614851	ug/L	115.6		53.3	Be	9	61.712462	ug/L	115.783		53.3
	111	47.430034	ug/L	98.403		48.2	Cd	111	47.380861	ug/L	98.301		48.2
	114	48.746097	ug/L	101.133		48.2	Cd	114	48.585557	ug/L	100.8		48.2
	59	26.280712	ug/L	106.832		24.6	Co	59	26.170913	ug/L	106.386		24.6
	52	12.015753	ug/L	104.485		11.5	Cr	52	11.920527	ug/L	103.657		11.5
ı	63	29.462402	ug/L	105.223		28	Cu	63	28.915989	ug/L	103.271		28
ı	65	29.259493	ug/L	104.498		28	Cu	65	29.162714	ug/L	104.153		28
ı	54	44.033776	ug/L	99.175		44.4	Fe	54	44.487941	ug/L	100.198		44.4
ı	57	43.567683	ug/L	98.125		44.4	Fe	57	42.710078	ug/L	96.194		44.4
e	72		ug/L		82.707		Ge	72		ug/L		81.216	
g	200	1.057705	ug/L	105.77		1	Hg	200	1.026397	ug/L	102.64		1
g	202	1.069887	ug/L	106.989		1	Hg	202	1.042264	ug/L	104.226		1
o	165		ug/L		96.744		Ho	165		ug/L		96.797	
ı	115		ug/L		90.217		In	115		ug/L		88.977	
ſn	55	156.302321	ug/L	105.61		148	Mn	55	155.899113	ug/L	105.337		148
ıi	60	37.297646	ug/L	103.318		36.1	Ni	60	36.847545	ug/L	102.071		36.1
ıi	62	37.56515	ug/L	104.059		36.1	Ni	62	36.750603	ug/L	101.802		36.1
?b	208	141.740015	ug/L	103.46		137	Pb	208	140.681713	ug/L	102.687		137
Sb	121	78.450993	ug/L	122.964		63.8	Sb	121	78.164808	ug/L	122.515		63.8
Sb	123	78.806471	ug/L	123.521		63.8	Sb	123	79.249706	ug/L	124.216		63.8
Sc	45		ug/L		79.964		Sc	45		ug/L		81.057	
Se	82	169.290777	ug/L	104.5		162	Se	82	169.545511	ug/L	104.658		162
Tl	205	28.847121	ug/L	103.767		27.8	Tl	205	28.82577	ug/L	103.69		27.8
V	51	147.903791	ug/L	104.158		142	V	51	146.069039	ug/L	102.866		142
Zn	64	138.748402	ug/L	110.118		126	Zn	64	136.170963	ug/L	108.072		126

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 04:06:40
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.855035	ug/L	106.642		100
As	75	99.738286	ug/L	98.849		100
Ba	137	99.427534	ug/L	99.13		100
Be	9	111.359736	ug/L	111.471		100
Ca	44	90.844556	ug/L	90.124		100
Cd	111	101.6245	ug/L	101.625		100
Cd	114	102.363104	ug/L	102.363		100
Co	59	99.993398	ug/L	99.894		100
Cr	52	102.316464	ug/L	101.807		100
Cu	63	101.568423	ug/L	101.976		100
Cu	65	101.394263	ug/L	101.801		100
Fe	54	106.778376	ug/L	106.247		100
Fe	57	99.11921	ug/L	98.626		100
Ge	72		ug/L		81.325	
Hg	200	1.039045	ug/L	103.905		1
Hg	202	1.034894	ug/L	103.489		1
Ho	165		ug/L		95.8	
In	115		ug/L		89.613	
K	39	980.406712	ug/L	97.263		1000
Mg	24	106.075733	ug/L	105.653		100
Mg	25	104.41786	ug/L	104.002		100
Mn	55	102.265355	ug/L	101.655		100
Na	23	109.383336	ug/L	107.767		100
Ni	60	101.325264	ug/L	100.922		100
Ni	62	102.911047	ug/L	102.501		100
Pb	208	100.596911	ug/L	99.799		100
Sb	121	100.886785	ug/L	100.485		100
Sb	123	102.45858	ug/L	102.05		100
Sc	45		ug/L		80.931	
Se	82	103.594045	ug/L	102.568		100
Tl	205	100.403285	ug/L	100.705		100
V	51	101.454542	ug/L	100.45		100
Zn	64	111.594075	ug/L	111.149		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 05:38:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.521598	ug/L	-0.521		100
As	75	1.019506	ug/L	1.01		100
Ba	137	-0.011168	ug/L	-0.011		100
Be	9	-0.013119	ug/L	-0.013		100
Ca	44	-19.317029	ug/L	-19.164		100
Cd	111	-0.041502	ug/L	-0.042		100
Cd	114	-0.047541	ug/L	-0.048		100
Co	59	0.033949	ug/L	0.034		100
Cr	52	-0.447378	ug/L	-0.445		100
Cu	63	0.006482	ug/L	0.007		100
Cu	65	-0.003219	ug/L	-0.003		100
Fe	54	341.040571	ug/L	339.344		100
Fe	57	-20.281472	ug/L	-20.181		100
Ge	72		ug/L		141.672	
Hg	200	-0.001972	ug/L	-0.197		1
Hg	202	-0.003494	ug/L	-0.349		1
Ho	165		ug/L		140.001	
In	115		ug/L		143.401	
K	39	-29.203674	ug/L	-2.897		1000
Mg	24	-0.128433	ug/L	-0.128		100
Mg	25	-0.176593	ug/L	-0.176		100
Mn	55	0.068222	ug/L	0.068		100
Na	23	1.1586	ug/L	1.141		100
Ni	60	-0.007254	ug/L	-0.007		100
Ni	62	-0.040271	ug/L	-0.04		100
Pb	208	-0.008554	ug/L	-0.008		100
Sb	121	-0.001948	ug/L	-0.002		100
Sb	123	-0.000004	ug/L	0		100
Sc	45		ug/L		127.131	
Se	82	-0.102041	ug/L	-0.101		100
Tl	205	-0.078819	ug/L	-0.079		100
V	51	-2.177959	ug/L	-2.156		100
Zn	64	-1.176953	ug/L	-1.172		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 04:19:41
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10048.9356	ug/L	100.489		10000
Ca	44	9616.58138	ug/L	96.166		10000
Fe	54	9708.67189	ug/L	97.087		10000
Fe	56	9793.94005	ug/L	97.939		10000
Fe	57	9863.06701	ug/L	98.631		10000
Ge	72		ug/L		80.146	
Ho	165		ug/L		95.898	
In	115		ug/L		85.558	
K	39	9439.43254	ug/L	94.394		10000
Mg	24	9619.6998	ug/L	96.197		10000
Mg	25	9625.27055	ug/L	96.253		10000
Na	23	9591.54487	ug/L	95.915		10000
P	31	9620.46246	ug/L	96.205		10000
Sc	45		ug/L		79.417	

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 05:51:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	-0.523385	ug/L	-0.005		10000
Ca	44	-19.764145	ug/L	-0.198		10000
Fe	54	330.933232	ug/L	3.309		10000
Fe	56	-124.84355	ug/L	-1.248		10000
Fe	57	-20.813741	ug/L	-0.208		10000
Ge	72		ug/L		145.412	
Ho	165		ug/L		150.946	
In	115		ug/L		129.203	
K	39	-30.358663	ug/L	-0.304		10000
Mg	24	-0.154086	ug/L	-0.002		10000
Mg	25	-0.24564	ug/L	-0.002		10000
Na	23	1.149832	ug/L	0.011		10000
P	31	26.365882	ug/L	0.264		10000
Sc	45		ug/L		132.98	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

mple ID:	QC Std 5	Sample ID:	QC Std 5
mple Date/Time:	Thursday, August 22, 2013 04:13:10	Sample Date/Time:	Thursday, August 22, 2013 05:44:51
mple Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

ncentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
alyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
]	107	31.910435	ug/L	102.606		31.1	Ag	107	-0.002583	ug/L	-0.008		31.1
]	109	32.451735	ug/L	104.346		31.1	Ag	109	-0.001163	ug/L	-0.004		31.1
	27	176.978661	ug/L	109.246		162	Al	27	-0.512186	ug/L	-0.316		162
s	75	43.693437	ug/L	107.885		40.5	As	75	1.099476	ug/L	2.715		40.5
a	137	26.960732	ug/L	102.512		26.3	Ba	137	-0.009982	ug/L	-0.038		26.3
e	9	63.399941	ug/L	118.949		53.3	Be	9	-0.016701	ug/L	-0.031		53.3
d	111	48.186725	ug/L	99.972		48.2	Cd	111	-0.043471	ug/L	-0.09		48.2
d	114	48.776891	ug/L	101.197		48.2	Cd	114	-0.050387	ug/L	-0.105		48.2
o	59	26.421149	ug/L	107.403		24.6	Co	59	0.008112	ug/L	0.033		24.6
r	52	11.97374	ug/L	104.119		11.5	Cr	52	-0.495766	ug/L	-4.311		11.5
u	63	29.055703	ug/L	103.77		28	Cu	63	-0.000159	ug/L	-0.001		28
u	65	29.197034	ug/L	104.275		28	Cu	65	-0.005692	ug/L	-0.02		28
e	54	43.74309	ug/L	98.52		44.4	Fe	54	291.990802	ug/L	657.637		44.4
e	57	41.962856	ug/L	94.511		44.4	Fe	57	-21.372424	ug/L	-48.136		44.4
;e	72		ug/L		80.709		Ge	72		ug/L		132.416	
lg	200	1.069262	ug/L	106.926		1	Hg	200	-0.003091	ug/L	-0.309		1
lg	202	1.056357	ug/L	105.636		1	Hg	202	-0.003251	ug/L	-0.325		1
lo	165		ug/L		95.83		Ho	165		ug/L		126.741	
n	115		ug/L		88.442		In	115		ug/L		145.25	
Mn	55	156.943489	ug/L	106.043		148	Mn	55	0.053751	ug/L	0.036		148
Ni	60	37.048042	ug/L	102.626		36.1	Ni	60	-0.011788	ug/L	-0.033		36.1
Ni	62	36.398976	ug/L	100.828		36.1	Ni	62	-0.058488	ug/L	-0.162		36.1
Pb	208	141.718411	ug/L	103.444		137	Pb	208	-0.007995	ug/L	-0.006		137
Sb	121	78.316181	ug/L	122.753		63.8	Sb	121	-0.004589	ug/L	-0.007		63.8
Sb	123	78.931664	ug/L	123.717		63.8	Sb	123	-0.002685	ug/L	-0.004		63.8
Sc	45		ug/L		80.835		Sc	45		ug/L		143.741	
Se	82	171.023934	ug/L	105.57		162	Se	82	-0.047835	ug/L	-0.03		162
Tl	205	28.771042	ug/L	103.493		27.8	Tl	205	-0.076379	ug/L	-0.275		27.8
V	51	146.166037	ug/L	102.934		142	V	51	-2.27818	ug/L	-1.604		142
Zn	64	138.002467	ug/L	109.526		126	Zn	64	-1.176203	ug/L	-0.933		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 07:10:02
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.540823	ug/L	-0.54		100
As	75	0.995263	ug/L	0.986		100
Ba	137	-0.010092	ug/L	-0.01		100
Be	9	-0.014364	ug/L	-0.014		100
Ca	44	-21.167987	ug/L	-21		100
Cd	111	-0.084667	ug/L	-0.085		100
Cd	114	-0.088271	ug/L	-0.088		100
Co	59	-0.042045	ug/L	-0.042		100
Cr	52	-0.483589	ug/L	-0.481		100
Cu	63	-0.002174	ug/L	-0.002		100
Cu	65	-0.003571	ug/L	-0.004		100
Fe	54	320.22924	ug/L	318.636		100
Fe	57	-22.621752	ug/L	-22.509		100
Ge	72		ug/L		153.704	
Hg	200	-0.002818	ug/L	-0.282		1
Hg	202	-0.003181	ug/L	-0.318		1
Ho	165		ug/L		152.649	
In	115		ug/L		133.34	
K	39	-34.329377	ug/L	-3.406		1000
Mg	24	-0.174617	ug/L	-0.174		100
Mg	25	-0.247938	ug/L	-0.247		100
Mn	55	0.05222	ug/L	0.052		100
Na	23	0.032718	ug/L	0.032		100
Ni	60	-0.011779	ug/L	-0.012		100
Ni	62	-0.061766	ug/L	-0.062		100
Pb	208	-0.011789	ug/L	-0.012		100
Sb	121	-0.014839	ug/L	-0.015		100
Sb	123	-0.014279	ug/L	-0.014		100
Sc	45		ug/L		137.572	
Se	82	-0.153896	ug/L	-0.152		100
Tl	205	-0.096793	ug/L	-0.097		100
V	51	-2.312245	ug/L	-2.289		100
Zn	64	-1.422791	ug/L	-1.417		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 08:41:47
Sample Description: CV - Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.510594	ug/L	-0.51		100
As	75	1.081437	ug/L	1.072		100
Ba	137	-0.010034	ug/L	-0.01		100
Be	9	-0.016971	ug/L	-0.017		100
Ca	44	-19.064572	ug/L	-18.913		100
Cd	111	-0.08819	ug/L	-0.088		100
Cd	114	-0.08839	ug/L	-0.088		100
Co	59	-0.070712	ug/L	-0.071		100
Cr	52	-0.423726	ug/L	-0.422		100
Cu	63	0.003198	ug/L	0.003		100
Cu	65	0.004821	ug/L	0.005		100
Fe	54	374.745626	ug/L	372.881		100
Fe	57	-19.721032	ug/L	-19.623		100
Ge	72		ug/L		134.551	
Hg	200	-0.00295	ug/L	-0.295		1
Hg	202	-0.002419	ug/L	-0.242		1
Ho	165		ug/L		132.938	
In	115		ug/L		145.516	
K	39	-30.263053	ug/L	-3.002		1000
Mg	24	-0.166032	ug/L	-0.165		100
Mg	25	-0.22414	ug/L	-0.223		100
Mn	55	0.061606	ug/L	0.061		100
Na	23	-0.358021	ug/L	-0.353		100
Ni	60	-0.011193	ug/L	-0.011		100
Ni	62	-0.060722	ug/L	-0.06		100
Pb	208	-0.011966	ug/L	-0.012		100
Sb	121	-0.018787	ug/L	-0.019		100
Sb	123	-0.01744	ug/L	-0.017		100
Sc	45		ug/L		116.953	
Se	82	-0.297324	ug/L	-0.294		100
Tl	205	-0.09285	ug/L	-0.093		100
V	51	-2.221141	ug/L	-2.199		100
Zn	64	-1.411079	ug/L	-1.405		100

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 07:23:02
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.521359	ug/L	-0.005		10000
Ca	44	-21.641595	ug/L	-0.216		10000
Fe	54	318.561792	ug/L	3.186		10000
Fe	56	-133.89749	ug/L	-1.339		10000
Fe	57	-22.422602	ug/L	-0.224		10000
Ge	72		ug/L		133.071	
Ho	165		ug/L		137.038	
In	115		ug/L		141.501	
K	39	-34.358722	ug/L	-0.344		10000
Mg	24	-0.161123	ug/L	-0.002		10000
Mg	25	-0.20827	ug/L	-0.002		10000
Na	23	-0.132712	ug/L	-0.001		10000
P	31	22.784733	ug/L	0.228		10000
Sc	45		ug/L		138.399	

Autosampler malfunction, no data reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 08:54:48
Sample Description: CV - Minerals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Al	27	-0.522842	ug/L	-0.005		10000
Ca	44	-20.840967	ug/L	-0.208		10000
Fe	54	323.336123	ug/L	3.233		10000
Fe	56	-130.06964	ug/L	-1.301		10000
Fe	57	-21.2047	ug/L	-0.212		10000
Ge	72		ug/L		131.449	
Ho	165		ug/L		130.742	
In	115		ug/L		136.686	
K	39	-33.793576	ug/L	-0.338		10000
Mg	24	-0.17897	ug/L	-0.002		10000
Mg	25	-0.22029	ug/L	-0.002		10000
Na	23	-0.508698	ug/L	-0.005		10000
P	31	22.801151	ug/L	0.228		10000
Sc	45		ug/L		133.737	

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 07:16:32	Sample Date/Time:	Thursday, August 22, 2013 08:48:17
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.005683	ug/L	-0.018		31.1
Ag	109	-0.004672	ug/L	-0.015		31.1
Al	27	-0.526243	ug/L	-0.325		162
As	75	1.047622	ug/L	2.587		40.5
Ba	137	-0.010625	ug/L	-0.04		26.3
Be	9	-0.011672	ug/L	-0.022		53.3
Cd	111	-0.081204	ug/L	-0.168		48.2
Cd	114	-0.084633	ug/L	-0.176		48.2
Co	59	-0.037544	ug/L	-0.153		24.6
Cr	52	-0.455464	ug/L	-3.961		11.5
Cu	63	-0.001302	ug/L	-0.005		28
Cu	65	-0.008634	ug/L	-0.031		28
Fe	54	343.19247	ug/L	772.956		44.4
Fe	57	-21.807524	ug/L	-49.116		44.4
Ge	72		ug/L		147.655	
Hg	200	-0.002745	ug/L	-0.274		1
Hg	202	-0.003859	ug/L	-0.386		1
Ho	165		ug/L		144.736	
In	115		ug/L		122.827	
Mn	55	0.059264	ug/L	0.04		148
Ni	60	-0.011871	ug/L	-0.033		36.1
Ni	62	-0.066178	ug/L	-0.183		36.1
Pb	208	-0.011159	ug/L	-0.008		137
Sb	121	-0.007662	ug/L	-0.012		63.8
Sb	123	-0.006636	ug/L	-0.01		63.8
Sc	45		ug/L		130.453	
Se	82	-0.176531	ug/L	-0.109		162
Tl	205	-0.095748	ug/L	-0.344		27.8
V	51	-2.294386	ug/L	-1.616		142
Zn	64	-1.419684	ug/L	-1.127		126

Autosampler malfunction, no data reported.

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	-0.010261	ug/L	-0.033		31.1
Ag	109	-0.008561	ug/L	-0.028		31.1
Al	27	-0.512647	ug/L	-0.316		162
As	75	0.997516	ug/L	2.463		40.5
Ba	137	-0.011502	ug/L	-0.044		26.3
Be	9	-0.016217	ug/L	-0.03		53.3
Cd	111	-0.086102	ug/L	-0.179		48.2
Cd	114	-0.090207	ug/L	-0.187		48.2
Co	59	-0.063167	ug/L	-0.257		24.6
Cr	52	-0.41994	ug/L	-3.652		11.5
Cu	63	0.003664	ug/L	0.013		28
Cu	65	-0.000089	ug/L	0		28
Fe	54	383.964492	ug/L	864.785		44.4
Fe	57	-20.739285	ug/L	-46.71		44.4
Ge	72		ug/L		139.435	
Hg	200	-0.002395	ug/L	-0.239		1
Hg	202	-0.003308	ug/L	-0.331		1
Ho	165		ug/L		133.242	
In	115		ug/L		132.119	
Mn	55	0.062949	ug/L	0.043		148
Ni	60	-0.011191	ug/L	-0.031		36.1
Ni	62	-0.064263	ug/L	-0.178		36.1
Pb	208	-0.011494	ug/L	-0.008		137
Sb	121	-0.016918	ug/L	-0.027		63.8
Sb	123	-0.017497	ug/L	-0.027		63.8
Sc	45		ug/L		118.604	
Se	82	-0.416035	ug/L	-0.257		162
Tl	205	-0.091322	ug/L	-0.328		27.8
V	51	-2.224339	ug/L	-1.566		142
Zn	64	-1.415112	ug/L	-1.123		126

Autosampler malfunction, no data reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 09:40:21
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	103.855372	ug/L	103.648		100
As	75	99.397911	ug/L	98.511		100
Ba	137	101.379979	ug/L	101.077		100
Be	9	104.941907	ug/L	105.047		100
Ca	44	92.251439	ug/L	91.519		100
Cd	111	101.469767	ug/L	101.47		100
Cd	114	102.299385	ug/L	102.299		100
Co	59	100.573809	ug/L	100.473		100
Cr	52	100.753156	ug/L	100.252		100
Cu	63	102.047841	ug/L	102.458		100
Cu	65	101.175695	ug/L	101.582		100
Fe	54	102.843626	ug/L	102.332		100
Fe	57	95.71243	ug/L	95.236		100
Ge	72		ug/L		87.963	
Hg	200	1.029146	ug/L	102.915		1
Hg	202	1.042264	ug/L	104.226		1
Ho	165		ug/L		98.386	
In	115		ug/L		93.527	
K	39	996.870219	ug/L	98.896		1000
Mg	24	105.051985	ug/L	104.633		100
Mg	25	102.434119	ug/L	102.026		100
Mn	55	100.109215	ug/L	99.512		100
Na	23	102.692603	ug/L	101.175		100
Ni	60	100.908565	ug/L	100.507		100
Ni	62	101.518379	ug/L	101.114		100
Pb	208	102.485529	ug/L	101.672		100
Sb	121	99.971715	ug/L	99.573		100
Sb	123	101.409663	ug/L	101.006		100
Sc	45		ug/L		87.1	
Se	82	103.10843	ug/L	102.088		100
Tl	205	100.3262	ug/L	100.628		100
V	51	99.856418	ug/L	98.868		100
Zn	64	111.102676	ug/L	110.66		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 11:30:50
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	104.03511	ug/L	103.827		100
As	75	99.641839	ug/L	98.753		100
Ba	137	100.887737	ug/L	100.586		100
Be	9	107.439656	ug/L	107.547		100
Ca	44	90.66372	ug/L	89.944		100
Cd	111	99.963108	ug/L	99.963		100
Cd	114	102.480838	ug/L	102.481		100
Co	59	102.209336	ug/L	102.107		100
Cr	52	101.631371	ug/L	101.126		100
Cu	63	103.334099	ug/L	103.749		100
Cu	65	103.872242	ug/L	104.289		100
Fe	54	107.134573	ug/L	106.602		100
Fe	57	101.128377	ug/L	100.625		100
Ge	72		ug/L		87.401	
Hg	200	1.007917	ug/L	100.792		1
Hg	202	1.02543	ug/L	102.543		1
Ho	165		ug/L		98.873	
In	115		ug/L		93.679	
K	39	989.740442	ug/L	98.189		1000
Mg	24	104.296986	ug/L	103.881		100
Mg	25	102.361758	ug/L	101.954		100
Mn	55	101.666783	ug/L	101.06		100
Na	23	104.77013	ug/L	103.222		100
Ni	60	103.325971	ug/L	102.914		100
Ni	62	103.975265	ug/L	103.561		100
Pb	208	101.214766	ug/L	100.411		100
Sb	121	100.512689	ug/L	100.112		100
Sb	123	101.366139	ug/L	100.962		100
Sc	45		ug/L		85.949	
Se	82	102.421724	ug/L	101.408		100
Tl	205	101.057397	ug/L	101.361		100
V	51	100.399897	ug/L	99.406		100
Zn	64	112.801648	ug/L	112.352		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 09:53:22
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9624.84854	ug/L	96.248		10000
Ca	44	9433.5959	ug/L	94.336		10000
Fe	54	9589.86673	ug/L	95.899		10000
Fe	56	9669.70289	ug/L	96.697		10000
Fe	57	9792.56964	ug/L	97.926		10000
Ge	72		ug/L		87.813	
Ho	165		ug/L		99.787	
In	115		ug/L		92.131	
K	39	9426.00325	ug/L	94.26		10000
Mg	24	9377.75601	ug/L	93.778		10000
Mg	25	9360.88392	ug/L	93.609		10000
Na	23	9457.46084	ug/L	94.575		10000
P	31	9227.86075	ug/L	92.279		10000
Sc	45		ug/L		85.499	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 11:43:51
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9658.94606	ug/L	96.589		10000
Ca	44	9275.66435	ug/L	92.757		10000
Fe	54	9360.27176	ug/L	93.603		10000
Fe	56	9612.11395	ug/L	96.121		10000
Fe	57	9697.57804	ug/L	96.976		10000
Ge	72		ug/L		86.108	
Ho	165		ug/L		99.483	
In	115		ug/L		91.344	
K	39	9272.59204	ug/L	92.726		10000
Mg	24	9373.06417	ug/L	93.731		10000
Mg	25	9331.49426	ug/L	93.315		10000
Na	23	9333.01463	ug/L	93.33		10000
P	31	9179.22447	ug/L	91.792		10000
Sc	45		ug/L		86.628	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 09:46:51
Sample Description: CV - Trace Metals 2

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Ag	107	31.896998	ug/L	102.563		31.1
Ag	109	31.841111	ug/L	102.383		31.1
Al	27	173.682345	ug/L	107.211		162
As	75	43.048065	ug/L	106.292		40.5
Ba	137	27.064294	ug/L	102.906		26.3
Be	9	59.90346	ug/L	112.389		53.3
Cd	111	46.076836	ug/L	95.595		48.2
Cd	114	47.156581	ug/L	97.835		48.2
Co	59	26.436397	ug/L	107.465		24.6
Cr	52	11.86025	ug/L	103.133		11.5
Cu	63	29.427617	ug/L	105.099		28
Cu	65	29.361522	ug/L	104.863		28
Fe	54	47.360123	ug/L	106.667		44.4
Fe	57	43.982058	ug/L	99.059		44.4
Ge	72		ug/L		89.941	
Hg	200	1.035414	ug/L	103.541		1
Hg	202	1.028259	ug/L	102.826		1
Ho	165		ug/L		100.503	
In	115		ug/L		94.972	
Mn	55	156.033414	ug/L	105.428		148
Ni	60	37.360375	ug/L	103.491		36.1
Ni	62	37.117588	ug/L	102.819		36.1
Pb	208	137.965676	ug/L	100.705		137
Sb	121	77.30276	ug/L	121.164		63.8
Sb	123	78.361562	ug/L	122.824		63.8
Sc	45		ug/L		86.442	
Se	82	165.054198	ug/L	101.885		162
Tl	205	28.609383	ug/L	102.911		27.8
V	51	146.087718	ug/L	102.879		142
Zn	64	138.405631	ug/L	109.846		126

Silver spike only reported.

Sample ID: QC Std 5
Sample Date/Time: Thursday, August 22, 2013 11:37:20
Sample Description: CV - Trace Metals 2

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Ag	107	32.293716	ug/L	103.838		31.1
Ag	109	32.738831	ug/L	105.27		31.1
Al	27	175.427873	ug/L	108.289		162
As	75	43.800938	ug/L	108.15		40.5
Ba	137	26.944094	ug/L	102.449		26.3
Be	9	61.359992	ug/L	115.122		53.3
Cd	111	48.399713	ug/L	100.414		48.2
Cd	114	48.384128	ug/L	100.382		48.2
Co	59	26.644405	ug/L	108.311		24.6
Cr	52	11.930948	ug/L	103.747		11.5
Cu	63	29.823207	ug/L	106.511		28
Cu	65	29.948456	ug/L	106.959		28
Fe	54	47.282511	ug/L	106.492		44.4
Fe	57	45.749586	ug/L	103.04		44.4
Ge	72		ug/L		88.051	
Hg	200	1.003497	ug/L	100.35		1
Hg	202	1.03339	ug/L	103.339		1
Ho	165		ug/L		100.284	
In	115		ug/L		92.841	
Mn	55	156.337068	ug/L	105.633		148
Ni	60	37.592437	ug/L	104.134		36.1
Ni	62	37.68354	ug/L	104.387		36.1
Pb	208	137.349263	ug/L	100.255		137
Sb	121	78.318798	ug/L	122.757		63.8
Sb	123	78.058879	ug/L	122.349		63.8
Sc	45		ug/L		85.711	
Se	82	170.046509	ug/L	104.967		162
Tl	205	28.428463	ug/L	102.261		27.8
V	51	145.411246	ug/L	102.402		142
Zn	64	140.620873	ug/L	111.604		126

Silver spike only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 13:49:35
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.11069	ug/L	105.899		100
As	75	102.626378	ug/L	101.711		100
Ba	137	100.612594	ug/L	100.312		100
Be	9	111.858314	ug/L	111.97		100
Ca	44	90.485333	ug/L	89.767		100
Cd	111	102.581917	ug/L	102.582		100
Cd	114	104.949397	ug/L	104.949		100
Co	59	102.477693	ug/L	102.375		100
Cr	52	104.696227	ug/L	104.175		100
Cu	63	103.471764	ug/L	103.887		100
Cu	65	102.904691	ug/L	103.318		100
Fe	54	110.224524	ug/L	109.676		100
Fe	57	103.923099	ug/L	103.406		100
Ge	72		ug/L		76.986	
Hg	200	1.041433	ug/L	104.143		1
Hg	202	1.052693	ug/L	105.269		1
Ho	165		ug/L		92.743	
In	115		ug/L		86.295	
K	39	988.520147	ug/L	98.067		1000
Mg	24	105.163942	ug/L	104.745		100
Mg	25	104.562376	ug/L	104.146		100
Mn	55	103.439706	ug/L	102.823		100
Na	23	107.064006	ug/L	105.482		100
Ni	60	103.416914	ug/L	103.005		100
Ni	62	104.626279	ug/L	104.209		100
Pb	208	102.222971	ug/L	101.412		100
Sb	121	105.67022	ug/L	105.249		100
Sb	123	106.381046	ug/L	105.957		100
Sc	45		ug/L		76.824	
Se	82	107.582395	ug/L	106.517		100
Tl	205	102.761032	ug/L	103.07		100
V	51	102.90077	ug/L	101.882		100
Zn	64	114.087363	ug/L	113.633		100

Silver spike only reported.

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 14:41:45
Sample Description: CV - Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	106.207731	ug/L	105.996		100
As	75	101.204774	ug/L	100.302		100
Ba	137	101.657033	ug/L	101.353		100
Be	9	113.725309	ug/L	113.839		100
Ca	44	91.576101	ug/L	90.849		100
Cd	111	102.4478	ug/L	102.448		100
Cd	114	103.982874	ug/L	103.983		100
Co	59	103.97917	ug/L	103.875		100
Cr	52	105.959992	ug/L	105.433		100
Cu	63	104.179022	ug/L	104.597		100
Cu	65	103.411509	ug/L	103.827		100
Fe	54	112.32915	ug/L	111.77		100
Fe	57	103.707752	ug/L	103.192		100
Ge	72		ug/L		78.268	
Hg	200	1.027573	ug/L	102.757		1
Hg	202	1.034154	ug/L	103.415		1
Ho	165		ug/L		93.287	
In	115		ug/L		87.325	
K	39	999.253714	ug/L	99.132		1000
Mg	24	104.129898	ug/L	103.715		100
Mg	25	103.655906	ug/L	103.243		100
Mn	55	104.253269	ug/L	103.631		100
Na	23	106.903493	ug/L	105.324		100
Ni	60	105.713366	ug/L	105.292		100
Ni	62	104.35735	ug/L	103.942		100
Pb	208	103.094453	ug/L	102.276		100
Sb	121	103.629563	ug/L	103.217		100
Sb	123	103.888418	ug/L	103.475		100
Sc	45		ug/L		75.911	
Se	82	104.336175	ug/L	103.303		100
Tl	205	102.099164	ug/L	102.406		100
V	51	103.657425	ug/L	102.631		100
Zn	64	114.231025	ug/L	113.776		100

Silver spike only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:02:36
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	9699.61046	ug/L	96.996		10000
Ca	44	9406.67019	ug/L	94.067		10000
Fe	54	9652.71055	ug/L	96.527		10000
Fe	56	9712.60396	ug/L	97.126		10000
Fe	57	9734.52911	ug/L	97.345		10000
Ge	72		ug/L		78.121	
Ho	165		ug/L		92.336	
In	115		ug/L		85.503	
K	39	9259.09896	ug/L	92.591		10000
Mg	24	9453.82297	ug/L	94.538		10000
Mg	25	9445.54684	ug/L	94.455		10000
Na	23	9519.12975	ug/L	95.191		10000
P	31	9507.21505	ug/L	95.072		10000
Sc	45		ug/L		79.268	

Sodium and Calcium only reported.

Sample ID: QC Std 6
Sample Date/Time: Thursday, August 22, 2013 14:54:46
Sample Description: CV - Minerals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Al	27	10043.7012	ug/L	100.437		10000
Ca	44	9473.8867	ug/L	94.739		10000
Fe	54	9828.36146	ug/L	98.284		10000
Fe	56	10120.8949	ug/L	101.209		10000
Fe	57	10283.8787	ug/L	102.839		10000
Ge	72		ug/L		76.571	
Ho	165		ug/L		90.849	
In	115		ug/L		83.597	
K	39	9533.31121	ug/L	95.333		10000
Mg	24	9627.10708	ug/L	96.271		10000
Mg	25	9643.50715	ug/L	96.435		10000
Na	23	9640.23924	ug/L	96.402		10000
P	31	9707.49771	ug/L	97.075		10000
Sc	45		ug/L		75.436	

Sodium and Calcium only reported.

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123528, 123529, 123649, 123650, 123705, 123739
Metals

Sample ID:	QC Std 5	Sample ID:	QC Std 5
Sample Date/Time:	Thursday, August 22, 2013 13:56:05	Sample Date/Time:	Thursday, August 22, 2013 14:48:16
Sample Description:	CV - Trace Metals 2	Sample Description:	CV - Trace Metals 2

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	33.442715	ug/L	107.533		31.1
Ag	109	33.688755	ug/L	108.324		31.1
Al	27	179.043586	ug/L	110.521		162
As	75	45.162096	ug/L	111.511		40.5
Ba	137	27.731851	ug/L	105.444		26.3
Be	9	64.398794	ug/L	120.823		53.3
Cd	111	49.461889	ug/L	102.618		48.2
Cd	114	49.490706	ug/L	102.678		48.2
Co	59	27.129774	ug/L	110.284		24.6
Cr	52	12.414864	ug/L	107.955		11.5
Cu	63	29.906814	ug/L	106.81		28
Cu	65	29.383655	ug/L	104.942		28
Fe	54	47.801167	ug/L	107.66		44.4
Fe	57	47.125058	ug/L	106.138		44.4
Ge	72		ug/L		77.442	
Hg	200	1.059861	ug/L	105.986		1
Hg	202	1.062051	ug/L	106.205		1
Ho	165		ug/L		91.204	
In	115		ug/L		85.046	
Mn	55	162.656169	ug/L	109.903		148
Ni	60	38.003502	ug/L	105.273		36.1
Ni	62	37.531851	ug/L	103.966		36.1
Pb	208	144.276791	ug/L	105.312		137
Sb	121	80.552718	ug/L	126.258		63.8
Sb	123	81.755156	ug/L	128.143		63.8
Sc	45		ug/L		76.245	
Se	82	176.391985	ug/L	108.884		162
Tl	205	29.572709	ug/L	106.377		27.8
V	51	149.952502	ug/L	105.6		142
Zn	64	141.444438	ug/L	112.257		126

Silver spike only reported.

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	32.816977	ug/L	105.521		31.1
Ag	109	33.078838	ug/L	106.363		31.1
Al	27	174.750964	ug/L	107.871		162
As	75	44.052461	ug/L	108.772		40.5
Ba	137	27.205882	ug/L	103.444		26.3
Be	9	62.863805	ug/L	117.943		53.3
Cd	111	47.743352	ug/L	99.053		48.2
Cd	114	48.546222	ug/L	100.718		48.2
Co	59	26.911723	ug/L	109.397		24.6
Cr	52	12.352885	ug/L	107.416		11.5
Cu	63	29.642764	ug/L	105.867		28
Cu	65	29.413619	ug/L	105.049		28
Fe	54	49.00759	ug/L	110.377		44.4
Fe	57	46.665312	ug/L	105.102		44.4
Ge	72		ug/L		77.354	
Hg	200	1.049008	ug/L	104.901		1
Hg	202	1.068119	ug/L	106.812		1
Ho	165		ug/L		92.327	
In	115		ug/L		86.826	
Mn	55	158.688787	ug/L	107.222		148
Ni	60	37.908498	ug/L	105.01		36.1
Ni	62	37.837597	ug/L	104.813		36.1
Pb	208	144.011138	ug/L	105.118		137
Sb	121	79.279513	ug/L	124.263		63.8
Sb	123	80.106254	ug/L	125.558		63.8
Sc	45		ug/L		76.361	
Se	82	174.683949	ug/L	107.83		162
Tl	205	29.024052	ug/L	104.403		27.8
V	51	148.64255	ug/L	104.678		142
Zn	64	139.285851	ug/L	110.544		126

Silver spike only reported.

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	A	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72776.5, 43816.1			
AgLCS			43818.1			
123529.01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
123529.1 MS			73087.1, 72776.5, 43816.1			25mL
123529.1 MSD			73087.1, 72776.5, 43816.1			25mL
123529.11						
12						
13						
14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/15/13	B	73966.5, 73992.1, 74240.1	83.4	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123529.21						
22						
23						
24						
25						
27						
28						
29						
123528.02						
03						
04						
123528.04 MS			73087.1, 72276.5, 43816.1			25 mL
123528.04 MSD			73087.1, 72276.5, 43816.1			25 mL
123521.02			↓			
123532.01			73966.6, 73992.1, 74240.1			* New HNO_3 bottle
02						
123540.01						
123542.01						
123549.01						1:100
123550.06						
123552.01						
123575.01	↓	↓	↓		↓	
123552.07	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8/19/13	A	73966.6, 73992.1, 74240.1	83.5	DMS	
LCS	↓	↓	73087.1, 72776.5, 43816.1	↓	↓	
AgLCS			43818.1			
123622.01						
123629.01						
02						
123641.01						
02						
123642.04						1:10 dilution
05						1:10 dilution
123647.01						
02						
03						
123648.01						
123649.01						
649.01 MS			73087.1, 72776.5, 43816.1			
649.01 MSD			73087.1, 72776.5, 43816.1			
123649.02						
123649.03						
123649.04						
649.04 MS			73087.1, 72776.5, 43816.1			
649.04 MSD			73087.1, 72776.5, 43816.1			
123650.01						
02						
03						
04	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	A	73916.16, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72276.5, 43816.1			
AgLCS			43818.1			
123705.09						
123739.02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
123739.13MS			73087.1, 72276.5, 43816.1			
123739.13MSD			73087.1, 72276.5, 43816.1			
123739.14						
15						
16						
17						
18						
19						
20	↓	↓	↓	↓	↓	

Eastern Analytical Inc.
Aqueous Digestion Logbook

BatSamNum	Prep Date	Digestion Batch ID	Reagent/Chem Inv.	Temp. °C	Analyst	Notes
BLK	8-21-13	B	73966.6, 73992.1, 74240.1	83.7	DMS	
LCS			73087.1, 72776.5, 43816.1			
AgLCS			43818.1			
123739.21						
22						
123693.01						
02						
123695.01						
02						
123696.01						
123710.01						
02						
123711.01						
02						
711.02 MS			73087.1, 72776.5, 43816.1			25 mL
711.02 MSD			73087.1, 72776.5, 43816.1			25 mL
123741.01	↓	↓	↓	↓	↓	

23 TAL mts

Sample ID: 123739.05
Sample Date/Time: Thursday, August 22, 2013 01:36:14
Autosampler Position: 84
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.05.77700

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24193.487	ug/L	
Be	9	-0.008079	9.667	ug/L	0.000
B	10	9.475759	1159.085	ug/L	0.498
B	11	9.619584	5992.034	ug/L	0.155
C	12		588994.851	ug/L	
Na	23	7388.736737	46886012.330	ug/L	242.588
Mg	24	3265.406406	14323115.754	ug/L	99.581
Mg	25	3303.431982	2057145.799	ug/L	115.206
Al	27	1.671582	15417.951	ug/L	0.170
Si	28		22008235.908	ug/L	
P	31	-0.765941	10820.869	ug/L	1.186
S	32		78911460.331	ug/L	
Cl	35		9085159.895	ug/L	
K	39	1672.991958	17774041.960	ug/L	41.348
Ca	44	10684.193082	3582590.156	ug/L	342.794
Sc	45		194676.602	ug/L	
Ti	47	1.447977	1454.798	ug/L	0.019
Ti	48	16.648301	156936.756	ug/L	0.353
V	51	-0.738911	27156.124	ug/L	0.003
ClO	51		27653.606	ug/L	
Cr	52	-0.108319	8300.897	ug/L	0.019
Cr	53	-2.527591	9056.600	ug/L	0.155
Fe	54	-12.594780	52049.997	ug/L	2.826
Mn	55	0.044640	2100.264	ug/L	0.009
Fe	56	-79.380476	1856619.702	ug/L	4.084
Fe	57	23.283525	17869.331	ug/L	2.112
Co	59	-0.094166	1179.756	ug/L	0.014
Ni	60	3.638664	9305.856	ug/L	0.009
Ni	62	3.410116	1343.779	ug/L	0.086
Cu	63	0.385136	2407.676	ug/L	0.015
Zn	64	1.313810	6924.347	ug/L	0.054
Cu	65	0.363136	1144.750	ug/L	0.016
Zn	66	0.914913	3539.058	ug/L	0.104
Zn	68	1.165778	3047.208	ug/L	0.161
Ge	72		157701.448	ug/L	
As	75	0.201321	193.120	ug/L	0.041
Se	82	0.315513	70.331	ug/L	0.012
ArCl	77		600.359	ug/L	
Br	79		17641.984	ug/L	

Br	81		36531.620	ug/L	
Y	89		416048.681	ug/L	
Mo	95	0.377189	1480.802	ug/L	0.007
Rh	103		394769.695	ug/L	
Ag	107	0.064701	1229.429	ug/L	0.003
Ag	109	0.064810	1153.085	ug/L	0.002
Cd	111	-0.080599	80.001	ug/L	0.001
Cd	114	-0.076562	231.005	ug/L	0.000
In	115		585861.670	ug/L	
Sb	121	0.163360	1752.520	ug/L	0.001
Sb	123	0.164462	1348.611	ug/L	0.002
Ba	137	3.062071	17480.634	ug/L	0.117
Ba	138	3.072306	113857.411	ug/L	0.058
Tb	159		803972.313	ug/L	
Ho	165		798320.682	ug/L	
Hg	200	0.002869	29.667	ug/L	0.002
Hg	202	0.002311	37.667	ug/L	0.001
Tl	205	-0.076182	2163.614	ug/L	0.007
Pb	208	0.008783	1652.744	ug/L	0.001
Bi	209		717067.552	ug/L	
Se	77	-1.317865	612.693	ug/L	0.200
Se	78	-6.786156	8345.972	ug/L	0.002

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
[	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		94.508
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe
	Co
	Ni
	Ni
	Cu
	Zn
	Cu
	Zn
	Zn
>	Ge
	As
	Se
	ArCl
	Br
	Br
	Y
	Mo
	Rh
	Ag
	Ag
	Cd
	Cd
>	In
	Sb
	Sb
	Ba
	Ba
	Tb
>	Ho
	Hg
	Hg
	Tl
	Pb
	Bi
	Se
	Se

79.903

89.443

96.705

Sample ID: 123739.12
Sample Date/Time: Thursday, August 22, 2013 01:42:46
Autosampler Position: 85
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.12.77701

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24460.897	ug/L	
Be	9	0.022001	26.000	ug/L	0.006
B	10	284.538994	35805.415	ug/L	5.410
B	11	290.817642	186381.735	ug/L	6.448
C	12		789353.147	ug/L	
Na	23	77610.989862	531968059.487	ug/L	2535.294
Mg	24	18687.718710	88544469.805	ug/L	673.706
Mg	25	18675.054334	12563833.488	ug/L	602.358
Al	27	82.785449	616456.387	ug/L	2.533
Si	28		33261134.759	ug/L	
P	31	95.854600	53720.285	ug/L	6.237
S	32		78242421.934	ug/L	
Cl	35		10994025.106	ug/L	
K	39	17709.024951	196921268.155	ug/L	428.482
Ca	44	38173.234360	13796173.448	ug/L	1422.063
Sc	45		210362.734	ug/L	
Ti	47	9.539624	9132.677	ug/L	0.237
Ti	48	59.555764	608013.581	ug/L	0.716
V	51	-0.158257	37545.760	ug/L	0.062
ClO	51		37937.390	ug/L	
Cr	52	0.133235	11852.378	ug/L	0.033
Cr	53	-2.283072	10138.753	ug/L	0.178
Fe	54	7886.040499	7137695.176	ug/L	269.054
Mn	55	113.922235	2097372.796	ug/L	3.485
Fe	56	8004.824645	122752954.173	ug/L	174.555
Fe	57	8171.078605	2941279.956	ug/L	243.013
Co	59	0.272220	6096.438	ug/L	0.023
Ni	60	6.903050	19002.362	ug/L	0.290
Ni	62	5.860197	2449.354	ug/L	0.162
Cu	63	1.004635	6360.621	ug/L	0.050
Zn	64	1.144718	7025.970	ug/L	0.115
Cu	65	0.314606	1089.409	ug/L	0.012
Zn	66	0.884768	3777.823	ug/L	0.020
Zn	68	3.091276	5602.449	ug/L	0.066
Ge	72		154228.253	ug/L	
As	75	52.343688	81093.942	ug/L	1.840
Se	82	3.896111	661.017	ug/L	0.307
ArCl	77		880.385	ug/L	
Br	79		266517.104	ug/L	

Br	81		296188.784	ug/L	
Y	89		409264.480	ug/L	
Mo	95	2.476765	9047.932	ug/L	0.019
Rh	103		370025.313	ug/L	
Ag	107	0.042908	860.049	ug/L	0.000
Ag	109	0.042544	794.043	ug/L	0.006
Cd	111	-0.050106	167.003	ug/L	0.002
Cd	114	-0.050534	397.346	ug/L	0.001
In	115		537366.647	ug/L	
Sb	121	0.182042	1762.522	ug/L	0.006
Sb	123	0.194995	1431.915	ug/L	0.003
Ba	137	103.428697	538906.585	ug/L	3.217
Ba	138	100.929174	3416278.262	ug/L	3.231
Tb	159		763602.598	ug/L	
Ho	165		761444.496	ug/L	
Hg	200	0.030879	112.002	ug/L	0.001
Hg	202	0.019329	103.335	ug/L	0.001
Tl	205	-0.085794	1661.836	ug/L	0.006
Pb	208	0.140484	9227.940	ug/L	0.002
Bi	209		660591.208	ug/L	
Se	77	0.445917	879.051	ug/L	0.053
Se	78	-6.565209	8453.011	ug/L	0.159

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		102.123
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 78.143
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 82.040
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 92.238
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.13
Sample Date/Time: Thursday, August 22, 2013 01:49:19
Autosampler Position: 86
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13.77702

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23615.969	ug/L	
Be	9	-0.008628	9.000	ug/L	0.008
B	10	272.629723	30619.786	ug/L	8.889
B	11	286.791299	164087.784	ug/L	5.773
C	12		772970.090	ug/L	
Na	23	79493.728059	486490931.778	ug/L	1917.398
Mg	24	12068.840331	51045462.343	ug/L	481.360
Mg	25	12071.123087	7249072.467	ug/L	449.375
Al	27	10.243205	71470.317	ug/L	0.258
Si	28		18097801.929	ug/L	
P	31	19.165145	18163.277	ug/L	2.493
S	32		80969832.497	ug/L	
Cl	35		11037658.047	ug/L	
K	39	6866.319395	68531727.052	ug/L	110.852
Ca	44	27885.932379	9002013.172	ug/L	698.471
Sc	45		187779.489	ug/L	
Ti	47	1.492257	1439.462	ug/L	0.064
Ti	48	37.746201	343445.175	ug/L	1.644
V	51	-0.235696	32529.085	ug/L	0.101
ClO	51		33251.032	ug/L	
Cr	52	0.031407	9492.371	ug/L	0.042
Cr	53	-1.584613	9953.212	ug/L	0.230
Fe	54	2756.238151	2266497.082	ug/L	79.476
Mn	55	2271.350836	37310271.373	ug/L	54.415
Fe	56	2723.457936	39151453.170	ug/L	105.446
Fe	57	2744.306884	888159.974	ug/L	114.919
Co	59	6.489948	78480.754	ug/L	0.279
Ni	60	5.418282	13322.558	ug/L	0.337
Ni	62	4.668963	1753.187	ug/L	0.185
Cu	63	0.927000	5259.907	ug/L	0.024
Zn	64	0.291402	4238.807	ug/L	0.048
Cu	65	0.197892	656.364	ug/L	0.001
Zn	66	0.000143	2108.266	ug/L	0.063
Zn	68	1.020631	2785.788	ug/L	0.036
Ge	72		156219.359	ug/L	
As	75	18.486853	28940.488	ug/L	0.680
Se	82	2.913322	504.009	ug/L	0.026
ArCl	77		841.714	ug/L	
Br	79		205205.210	ug/L	

Br	81		231046.349	ug/L	
Y	89		411906.859	ug/L	
Mo	95	21.955522	80563.003	ug/L	0.023
Rh	103		379634.792	ug/L	
Ag	107	0.036181	790.709	ug/L	0.002
Ag	109	0.037572	748.705	ug/L	0.002
Cd	111	-0.011738	289.674	ug/L	0.001
Cd	114	-0.029734	554.689	ug/L	0.002
In	115		546259.650	ug/L	
Sb	121	0.155169	1564.150	ug/L	0.011
Sb	123	0.158054	1215.749	ug/L	0.005
Ba	137	36.954744	195854.351	ug/L	0.365
Ba	138	36.778018	1265939.737	ug/L	1.017
Tb	159		770043.569	ug/L	
Ho	165		762724.096	ug/L	
Hg	200	-0.000348	18.667	ug/L	0.000
Hg	202	0.001485	32.667	ug/L	0.001
Tl	205	-0.059249	2774.119	ug/L	0.006
Pb	208	0.030252	2828.535	ug/L	0.000
Bi	209		651792.778	ug/L	
Se	77	0.289184	855.382	ug/L	0.025
Se	78	-6.167780	8645.549	ug/L	0.378

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		91.160
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 79.152
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 83.397
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 92.393
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.13 MS
Sample Date/Time: Thursday, August 22, 2013 01:55:52
Autosampler Position: 87
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MS.77703

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22387.565	ug/L	
Be	9	930.347031	425714.746	ug/L	19.864
B	10	260.794325	28937.274	ug/L	4.105
B	11	268.921980	152011.348	ug/L	0.114
C	12		1426489.718	ug/L	
Na	23	84547.435048	511019130.224	ug/L	1781.619
Mg	24	20777.221200	86818328.740	ug/L	389.335
Mg	25	20874.148597	12383179.225	ug/L	466.928
Al	27	9861.505112	64294741.223	ug/L	292.374
Si	28		17190364.733	ug/L	
P	31	8605.639480	3314214.259	ug/L	180.908
S	32		79540032.696	ug/L	
Cl	35		12445156.882	ug/L	
K	39	16082.484310	157730925.826	ug/L	285.704
Ca	44	37423.086514	11927798.876	ug/L	807.086
Sc	45		185427.328	ug/L	
Ti	47	28.481960	23639.638	ug/L	2.225
Ti	48	52.025904	467817.280	ug/L	1.529
V	51	917.204878	11477465.799	ug/L	19.777
ClO	51		11692610.425	ug/L	
Cr	52	878.294946	9262269.953	ug/L	7.222
Cr	53	859.243519	1109484.771	ug/L	5.562
Fe	54	12405.030176	9869508.514	ug/L	23.256
Mn	55	3123.940653	50690515.425	ug/L	18.099
Fe	56	12458.821236	166912265.307	ug/L	19.239
Fe	57	12664.377552	4015837.607	ug/L	82.423
Co	59	852.868939	9901196.568	ug/L	9.621
Ni	60	835.517854	2021768.028	ug/L	17.267
Ni	62	838.621396	301073.658	ug/L	27.556
Cu	63	778.531305	4168078.256	ug/L	20.935
Zn	64	875.890117	2066990.009	ug/L	20.930
Cu	65	773.497061	2072274.141	ug/L	14.078
Zn	66	904.079695	1276060.091	ug/L	29.238
Zn	68	910.249163	963163.507	ug/L	30.749
Ge	72		155797.020	ug/L	
As	75	1032.017935	1618853.536	ug/L	12.647
Se	82	1021.312446	170284.629	ug/L	2.227
ArCl	77		127203.691	ug/L	
Br	79		207400.682	ug/L	

Br	81		233203.160	ug/L	
Y	89		400128.490	ug/L	
Mo	95	1131.578756	4136885.856	ug/L	8.654
Rh	103		368031.778	ug/L	
Ag	107	379.659332	4756902.653	ug/L	23.373
Ag	109	413.522841	4989098.576	ug/L	25.746
Cd	111	955.750376	3002121.746	ug/L	20.210
Cd	114	962.332250	7007141.343	ug/L	32.292
In	115		549435.224	ug/L	
Sb	121	1192.452867	10077290.997	ug/L	31.588
Sb	123	1186.747163	7726159.415	ug/L	22.191
Ba	137	1016.017779	5412932.959	ug/L	24.082
Ba	138	1013.916146	35093449.837	ug/L	21.391
Tb	159		772607.689	ug/L	
Ho	165		753902.198	ug/L	
Hg	200	1.024170	3050.876	ug/L	0.039
Hg	202	1.008745	3978.577	ug/L	0.019
Tl	205	974.223545	40160154.446	ug/L	20.265
Pb	208	961.364659	55286587.706	ug/L	30.050
Bi	209		689842.199	ug/L	
Se	77	828.437324	125918.302	ug/L	1.472
Se	78	826.041304	411814.859	ug/L	1.566

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		90.018
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 78.938
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 83.882
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 91.324
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.13 MSD
Sample Date/Time: Thursday, August 22, 2013 02:02:25
Autosampler Position: 88
Sample Description: pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MSD.77704

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22281.947	ug/L	
Be	9	944.425112	429005.539	ug/L	54.711
B	10	267.222875	29450.260	ug/L	8.079
B	11	278.307003	156208.665	ug/L	9.027
C	12		1438475.144	ug/L	
Na	23	86134.516077	517106740.718	ug/L	2941.259
Mg	24	21189.846770	87953454.115	ug/L	624.214
Mg	25	21230.730400	12510722.038	ug/L	683.692
Al	27	9857.520155	63832721.684	ug/L	406.522
Si	28		17243162.105	ug/L	
P	31	8542.179828	3267823.360	ug/L	279.051
S	32		78487915.862	ug/L	
Cl	35		12163648.432	ug/L	
K	39	16047.730558	156278038.162	ug/L	751.473
Ca	44	37563.649228	11888798.585	ug/L	1713.362
Sc	45		184276.326	ug/L	
Ti	47	27.163189	22409.143	ug/L	1.455
Ti	48	53.957739	481805.417	ug/L	2.727
V	51	914.657169	11365968.015	ug/L	40.562
ClO	51		11543767.737	ug/L	
Cr	52	877.769405	9193885.012	ug/L	25.716
Cr	53	853.798049	1094568.426	ug/L	40.070
Fe	54	12375.603377	9776118.783	ug/L	494.150
Mn	55	3204.392015	51620815.655	ug/L	146.894
Fe	56	12654.128560	168251614.143	ug/L	591.962
Fe	57	12677.755216	3990997.482	ug/L	503.316
Co	59	857.532456	9884517.451	ug/L	38.304
Ni	60	837.977851	2013737.758	ug/L	34.218
Ni	62	839.517503	299339.712	ug/L	37.419
Cu	63	781.361167	4153265.917	ug/L	43.469
Zn	64	887.613331	2080048.642	ug/L	39.992
Cu	65	777.081962	2067373.147	ug/L	32.986
Zn	66	899.780189	1261290.912	ug/L	41.337
Zn	68	903.130718	949247.572	ug/L	35.926
Ge	72		155087.053	ug/L	
As	75	1028.441293	1605063.230	ug/L	34.385
Se	82	1017.855343	168854.717	ug/L	29.471
ArCl	77		127511.973	ug/L	
Br	79		197259.242	ug/L	

Br	81		222279.197	ug/L	
Y	89		399139.993	ug/L	
Mo	95	1141.877023	4154031.740	ug/L	22.641
Rh	103		371854.369	ug/L	
Ag	107	S	S	ug/L	S
Ag	109	S	S	ug/L	S
Cd	111	975.600073	3029465.794	ug/L	38.124
Cd	114	975.774497	7025361.608	ug/L	34.760
In	115		543435.835	ug/L	
Sb	121	1190.231460	9946203.735	ug/L	34.549
Sb	123	1191.819486	7672235.835	ug/L	31.387
Ba	137	1033.425480	5442116.188	ug/L	48.614
Ba	138	1024.736921	35055838.866	ug/L	50.647
Tb	159		746847.443	ug/L	
Ho	165		738737.952	ug/L	
Hg	200	1.031834	3012.196	ug/L	0.029
Hg	202	1.046396	4041.605	ug/L	0.043
Tl	205	994.063119	40154453.554	ug/L	19.075
Pb	208	980.908312	55272107.403	ug/L	34.078
Bi	209		642256.722	ug/L	
Se	77	829.840555	126130.211	ug/L	1.336
Se	78	830.526925	413987.949	ug/L	0.913

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		89.459
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	78.578
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	82.966
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	89.487
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.13 MS
Sample Date/Time: Thursday, August 22, 2013 02:08:57
Autosampler Position: 89
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MS.77705

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22187.049	ug/L	
Be	9	948.347714	431053.310	ug/L	32.426
B	10	252.903949	27877.624	ug/L	6.468
B	11	266.536547	149671.100	ug/L	2.661
C	12		1370524.040	ug/L	
Na	23	84143.339669	505381397.218	ug/L	686.268
Mg	24	21029.217631	87310841.816	ug/L	258.985
Mg	25	20953.382498	12350973.346	ug/L	316.902
Al	27	9961.070127	64537237.667	ug/L	141.861
Si	28		16689616.542	ug/L	
P	31	8808.736550	3370626.595	ug/L	112.250
S	32		78795457.706	ug/L	
Cl	35		11951040.955	ug/L	
K	39	15796.774864	153948208.343	ug/L	199.184
Ca	44	36352.704003	11511735.857	ug/L	805.290
Sc	45		184232.933	ug/L	
Ti	47	27.091918	22363.363	ug/L	0.832
Ti	48	52.125539	465602.957	ug/L	2.011
V	51	918.868374	11423403.140	ug/L	21.312
ClO	51		11566801.629	ug/L	
Cr	52	877.948795	9196618.484	ug/L	20.992
Cr	53	861.100413	1104491.196	ug/L	15.300
Fe	54	12445.698397	9835051.803	ug/L	254.593
Mn	55	3073.099287	49535934.995	ug/L	49.501
Fe	56	12471.920255	165974721.122	ug/L	184.482
Fe	57	12668.170678	3989480.927	ug/L	274.561
Co	59	856.718312	9880799.973	ug/L	14.159
Ni	60	838.980254	2016723.646	ug/L	24.528
Ni	62	836.591273	298392.981	ug/L	27.271
Cu	63	784.216964	4170820.667	ug/L	26.440
Zn	64	882.634067	2069098.226	ug/L	28.560
Cu	65	779.536574	2074486.779	ug/L	24.976
Zn	66	905.401490	1269537.141	ug/L	32.818
Zn	68	906.755091	953208.777	ug/L	32.040
Ge	72		154301.648	ug/L	
As	75	1031.809624	1602380.474	ug/L	30.964
Se	82	1026.788500	169488.785	ug/L	28.746
ArCl	77		128111.667	ug/L	
Br	79		195311.322	ug/L	

Br	81		220546.766	ug/L	
Y	89		399666.054	ug/L	
Mo	95	1151.297970	4168385.937	ug/L	1.629
Rh	103		370538.701	ug/L	
Ag	107	689.708455	8485739.703	ug/L	21.958
Ag	109	719.456776	8521640.435	ug/L	32.529
Cd	111	986.042048	3040107.931	ug/L	30.081
Cd	114	976.854181	6982719.077	ug/L	29.188
In	115		539458.104	ug/L	
Sb	121	1171.349166	9721736.316	ug/L	3.342
Sb	123	1177.597825	7528680.560	ug/L	3.122
Ba	137	1033.200515	5402256.611	ug/L	40.102
Ba	138	1030.649656	35019050.289	ug/L	23.739
Tb	159		750247.689	ug/L	
Ho	165		738787.172	ug/L	
Hg	200	1.046173	3055.544	ug/L	0.006
Hg	202	1.050115	4058.947	ug/L	0.002
Tl	205	989.230850	39967639.701	ug/L	19.971
Pb	208	984.010694	55474574.937	ug/L	16.143
Bi	209		649164.050	ug/L	
Se	77	830.498897	126229.631	ug/L	9.381
Se	78	832.437533	414913.555	ug/L	3.330

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		89.438
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 78.180
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 82.359
Sb
Sb
Ba
Ba
Tb
Ho 89.493
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123739.13 MSD
Sample Date/Time: Thursday, August 22, 2013 02:15:30
Autosampler Position: 90
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MSD.77706

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22398.247	ug/L	
Be	9	948.758749	424565.675	ug/L	43.307
B	10	257.396684	27947.858	ug/L	4.232
B	11	268.239630	148308.008	ug/L	6.838
C	12		1330417.809	ug/L	
Na	23	84471.957917	499528600.828	ug/L	2193.078
Mg	24	21000.856743	85816885.486	ug/L	934.344
Mg	25	21005.674568	12183427.441	ug/L	1193.916
Al	27	9996.971723	63753591.266	ug/L	416.507
Si	28		16477338.030	ug/L	
P	31	8822.919722	3322690.724	ug/L	403.058
S	32		77103977.564	ug/L	
Cl	35		11881401.912	ug/L	
K	39	15931.678346	152842624.504	ug/L	554.495
Ca	44	36606.771851	11412437.879	ug/L	1413.389
Sc	45		181476.656	ug/L	
Ti	47	26.762137	21746.196	ug/L	1.451
Ti	48	52.132051	458073.745	ug/L	4.404
V	51	919.501724	11251576.195	ug/L	45.045
ClO	51		11468025.275	ug/L	
Cr	52	889.329623	9171053.502	ug/L	36.519
Cr	53	872.630733	1101587.109	ug/L	37.903
Fe	54	12466.828921	9697184.312	ug/L	567.642
Mn	55	3075.087213	48796416.499	ug/L	115.121
Fe	56	12516.502731	163939564.232	ug/L	550.326
Fe	57	12645.086549	3919980.872	ug/L	557.968
Co	59	857.479268	9734770.362	ug/L	35.653
Ni	60	845.151359	1999489.149	ug/L	47.226
Ni	62	841.606196	295473.335	ug/L	45.180
Cu	63	793.670411	4155223.202	ug/L	40.455
Zn	64	897.721900	2071598.200	ug/L	44.411
Cu	65	789.395143	2068103.318	ug/L	36.614
Zn	66	917.490585	1266464.352	ug/L	45.856
Zn	68	923.071766	955269.923	ug/L	44.696
Ge	72		154079.438	ug/L	
As	75	1033.284238	1602236.674	ug/L	31.480
Se	82	1021.685686	168394.669	ug/L	27.912
ArCl	77		125522.209	ug/L	
Br	79		192045.221	ug/L	

Br	81		218914.598	ug/L	
Y	89		389085.005	ug/L	
Mo	95	1146.437320	4142902.425	ug/L	33.587
Rh	103		366130.670	ug/L	
Ag	107	686.146468	8237212.370	ug/L	46.963
Ag	109	702.957971	8121684.360	ug/L	62.692
Cd	111	997.330940	3001106.780	ug/L	58.139
Cd	114	990.147234	6908783.255	ug/L	52.423
In	115		527058.195	ug/L	
Sb	121	1198.208764	9711257.173	ug/L	24.037
Sb	123	1210.003803	7552066.914	ug/L	37.221
Ba	137	1045.416365	5334833.082	ug/L	67.380
Ba	138	1039.822497	34474539.730	ug/L	64.533
Tb	159		749082.047	ug/L	
Ho	165		738658.364	ug/L	
Hg	200	1.064281	3106.562	ug/L	0.013
Hg	202	1.075271	4151.990	ug/L	0.034
Tl	205	998.418844	40300484.100	ug/L	43.767
Pb	208	985.184167	55485297.559	ug/L	43.875
Bi	209		640438.407	ug/L	
Se	77	823.901181	125233.276	ug/L	4.728
Se	78	813.521484	405749.548	ug/L	2.360

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		88.100
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	78.068
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	80.466
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	89.478
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.14
Sample Date/Time: Thursday, August 22, 2013 03:14:17
Autosampler Position: 95
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.14.77715

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23518.397	ug/L	
Be	9	-0.006412	10.000	ug/L	0.009
B	10	265.765529	29301.447	ug/L	6.294
B	11	274.985095	154434.292	ug/L	5.010
C	12		709437.689	ug/L	
Na	23	75582.541547	453943941.426	ug/L	2069.216
Mg	24	11611.844650	48226411.310	ug/L	160.359
Mg	25	11582.169179	6827231.957	ug/L	346.937
Al	27	10.440026	71406.469	ug/L	0.360
Si	28		17022050.419	ug/L	
P	31	20.641389	18407.136	ug/L	0.194
S	32		76642664.798	ug/L	
Cl	35		10415769.238	ug/L	
K	39	6567.504019	64340927.577	ug/L	198.804
Ca	44	26808.118210	8493526.650	ug/L	733.152
Sc	45		184309.954	ug/L	
Ti	47	1.385974	1325.777	ug/L	0.056
Ti	48	37.274761	332777.081	ug/L	1.945
V	51	-0.380508	30147.229	ug/L	0.029
ClO	51		30904.426	ug/L	
Cr	52	-0.012781	8854.332	ug/L	0.036
Cr	53	-2.047834	9186.068	ug/L	0.015
Fe	54	2630.143939	2125624.565	ug/L	61.050
Mn	55	2187.076921	35258889.178	ug/L	54.561
Fe	56	2580.176435	36560956.519	ug/L	59.527
Fe	57	2650.984636	842384.733	ug/L	102.336
Co	59	6.318699	75072.829	ug/L	0.167
Ni	60	5.207985	12579.492	ug/L	0.115
Ni	62	4.467787	1647.166	ug/L	0.396
Cu	63	0.969941	5387.983	ug/L	0.050
Zn	64	0.815568	5385.040	ug/L	0.107
Cu	65	0.298302	910.388	ug/L	0.023
Zn	66	0.581706	2881.152	ug/L	0.157
Zn	68	1.480498	3213.934	ug/L	0.183
Ge	72		151124.876	ug/L	
As	75	17.766903	26910.913	ug/L	0.254
Se	82	2.785748	467.381	ug/L	0.232
ArCl	77		819.378	ug/L	
Br	79		191709.542	ug/L	

Br	81		217063.608	ug/L	
Y	89		404562.242	ug/L	
Mo	95	21.797303	77391.068	ug/L	0.322
Rh	103		369853.469	ug/L	
Ag	107	0.197693	2774.118	ug/L	0.012
Ag	109	0.206516	2746.776	ug/L	0.015
Cd	111	-0.020552	259.673	ug/L	0.005
Cd	114	-0.030602	542.688	ug/L	0.000
In	115		540752.442	ug/L	
Sb	121	0.246156	2305.649	ug/L	0.010
Sb	123	0.253329	1814.527	ug/L	0.001
Ba	137	36.452882	191244.899	ug/L	0.527
Ba	138	36.035887	1228028.319	ug/L	0.834
Tb	159		763911.002	ug/L	
Ho	165		760105.689	ug/L	
Hg	200	0.000901	22.334	ug/L	0.000
Hg	202	0.001425	32.334	ug/L	0.001
Tl	205	-0.053523	3003.861	ug/L	0.005
Pb	208	0.043927	3611.987	ug/L	0.002
Bi	209		666518.883	ug/L	
Se	77	-0.251655	773.707	ug/L	0.290
Se	78	-7.028322	8228.653	ug/L	0.358

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		89.476
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 76.571
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 82.556
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 92.076
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.15
Sample Date/Time: Thursday, August 22, 2013 03:20:50
Autosampler Position: 96
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.15.77716

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24704.236	ug/L	
Be	9	-0.005283	11.000	ug/L	0.000
B	10	7.280722	901.720	ug/L	0.872
B	11	7.228649	4563.859	ug/L	0.748
C	12		575620.016	ug/L	
Na	23	6542.500145	41458953.660	ug/L	365.363
Mg	24	4776.916611	20931109.455	ug/L	186.130
Mg	25	4790.011819	2980117.316	ug/L	174.616
Al	27	12.118450	86827.992	ug/L	0.563
Si	28		26918673.905	ug/L	
P	31	3.653423	12576.617	ug/L	1.225
S	32		74354985.117	ug/L	
Cl	35		8677181.039	ug/L	
K	39	1983.289915	20935365.973	ug/L	71.393
Ca	44	5739.347672	1927937.633	ug/L	204.635
Sc	45		194573.268	ug/L	
Ti	47	2.505812	2362.665	ug/L	0.300
Ti	48	8.837400	82736.864	ug/L	1.129
V	51	-0.893040	25095.842	ug/L	0.084
ClO	51		25897.766	ug/L	
Cr	52	-0.258363	6628.614	ug/L	0.045
Cr	53	-3.159664	8196.776	ug/L	0.329
Fe	54	2166.683543	1857925.266	ug/L	126.122
Mn	55	380.143494	6464799.984	ug/L	22.837
Fe	56	2048.130610	31219894.697	ug/L	121.755
Fe	57	2084.912938	701135.527	ug/L	123.691
Co	59	0.324468	6267.224	ug/L	0.047
Ni	60	0.858832	2237.964	ug/L	0.040
Ni	62	0.653553	304.341	ug/L	0.053
Cu	63	0.179488	1249.432	ug/L	0.019
Zn	64	1.926138	8431.372	ug/L	0.091
Cu	65	0.142957	525.687	ug/L	0.000
Zn	66	1.540737	4462.473	ug/L	0.077
Zn	68	1.996011	3964.904	ug/L	0.148
Ge	72		156013.380	ug/L	
As	75	0.637821	876.404	ug/L	0.025
Se	82	0.146029	41.070	ug/L	0.079
ArCl	77		587.358	ug/L	
Br	79		11956.311	ug/L	

Br	81		29815.445	ug/L	
Y	89		408933.915	ug/L	
Mo	95	0.388404	1503.806	ug/L	0.034
Rh	103		389668.319	ug/L	
Ag	107	0.133715	2126.937	ug/L	0.008
Ag	109	0.131861	1994.239	ug/L	0.003
Cd	111	-0.073891	101.335	ug/L	0.001
Cd	114	-0.083174	177.670	ug/L	0.000
In	115		579508.875	ug/L	
Sb	121	0.188699	1958.897	ug/L	0.004
Sb	123	0.187937	1495.466	ug/L	0.001
Ba	137	10.725311	60346.232	ug/L	0.324
Ba	138	10.671083	389988.086	ug/L	0.256
Tb	159		816564.564	ug/L	
Ho	165		812670.529	ug/L	
Hg	200	-0.000623	19.000	ug/L	0.000
Hg	202	-0.000125	28.000	ug/L	0.000
Tl	205	-0.073072	2339.659	ug/L	0.005
Pb	208	0.038754	3539.306	ug/L	0.002
Bi	209		727278.057	ug/L	
Se	77	-1.604833	569.357	ug/L	0.069
Se	78	-7.599588	7951.900	ug/L	0.251

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		94.458
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 79.048
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.473
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.443
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.16
Sample Date/Time: Thursday, August 22, 2013 03:27:23
Autosampler Position: 97
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.16.77717

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25673.547	ug/L	
Be	9	-0.001322	13.333	ug/L	0.000
B	10	6.206533	805.044	ug/L	0.451
B	11	6.536805	4304.062	ug/L	0.030
C	12		655983.600	ug/L	
Na	23	12895.015127	84548438.898	ug/L	137.205
Mg	24	4318.947018	19574792.941	ug/L	27.684
Mg	25	4333.877536	2788690.093	ug/L	13.748
Al	27	96.608451	687312.437	ug/L	0.266
Si	28		26188142.191	ug/L	
P	31	9.641706	15498.089	ug/L	1.694
S	32		76923229.287	ug/L	
Cl	35		8556007.367	ug/L	
K	39	2874.558384	31095269.034	ug/L	35.354
Ca	44	5931.271600	2060006.189	ug/L	126.837
Sc	45		201060.527	ug/L	
Ti	47	5.673283	5273.272	ug/L	1.091
Ti	48	12.625365	122780.504	ug/L	0.573
V	51	-0.742826	27996.008	ug/L	0.042
ClO	51		28307.313	ug/L	
Cr	52	-0.040152	9354.772	ug/L	0.006
Cr	53	-3.071889	8602.154	ug/L	0.090
Fe	54	122.390278	169541.800	ug/L	0.141
Mn	55	7.585015	134836.944	ug/L	0.118
Fe	56	39.058897	3610065.744	ug/L	1.938
Fe	57	108.692602	47759.901	ug/L	0.380
Co	59	0.002187	2433.350	ug/L	0.008
Ni	60	0.331734	932.057	ug/L	0.020
Ni	62	0.388292	211.671	ug/L	0.019
Cu	63	0.341372	2233.964	ug/L	0.004
Zn	64	1.698575	8136.170	ug/L	0.038
Cu	65	0.271042	915.389	ug/L	0.000
Zn	66	1.055702	3872.530	ug/L	0.022
Zn	68	1.359878	3372.659	ug/L	0.056
Ge	72		156662.451	ug/L	
As	75	0.153683	116.525	ug/L	0.042
Se	82	0.130974	39.098	ug/L	0.147
ArCl	77		594.692	ug/L	
Br	79		7479.819	ug/L	

Br	81		25376.623	ug/L	
Y	89		425134.833	ug/L	
Mo	95	2.100915	7808.098	ug/L	0.031
Rh	103		400513.251	ug/L	
Ag	107	0.099701	1745.852	ug/L	0.001
Ag	109	0.104622	1713.846	ug/L	0.009
Cd	111	-0.077701	92.335	ug/L	0.001
Cd	114	-0.079982	210.338	ug/L	0.002
In	115		602750.089	ug/L	
Sb	121	0.256753	2669.085	ug/L	0.008
Sb	123	0.256517	2045.287	ug/L	0.009
Ba	137	7.003021	41031.142	ug/L	0.109
Ba	138	6.990573	265976.782	ug/L	0.078
Tb	159		844324.265	ug/L	
Ho	165		845700.270	ug/L	
Hg	200	0.037996	148.003	ug/L	0.002
Hg	202	0.028354	154.336	ug/L	0.001
Tl	205	-0.065683	2778.119	ug/L	0.003
Pb	208	0.095199	7326.239	ug/L	0.002
Bi	209		796937.648	ug/L	
Se	77	-1.618078	567.357	ug/L	0.194
Se	78	-7.734336	7886.620	ug/L	0.001

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		97.607
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 79.377
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 92.022
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 102.444
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.12
Sample Date/Time: Thursday, August 22, 2013 11:04:40
Autosampler Position: 85
Sample Description: 1:1 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.12.77781

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26066.686	ug/L	
Be	9	0.001842	15.000	ug/L	0.008
B	10	162.904212	19680.813	ug/L	1.846
B	11	167.976423	103367.869	ug/L	0.575
C	12		622798.145	ug/L	
Na	23	44789.132305	294353743.032	ug/L	1519.041
Mg	24	10972.394990	49844668.559	ug/L	465.716
Mg	25	10851.459314	6999674.662	ug/L	367.470
Al	27	47.785681	342880.581	ug/L	1.872
Si	28		18181656.580	ug/L	
P	31	53.679137	33913.210	ug/L	4.275
S	32		82275536.466	ug/L	
Cl	35		11157702.906	ug/L	
K	39	10406.877148	111203790.216	ug/L	308.628
Ca	44	21702.688527	7527460.670	ug/L	455.699
Sc	45		201651.401	ug/L	
Ti	47	5.254764	4917.379	ug/L	0.118
Ti	48	32.914113	321584.521	ug/L	1.593
V	51	-0.380961	32983.402	ug/L	0.015
ClO	51		33244.344	ug/L	
Cr	52	0.057263	10496.209	ug/L	0.017
Cr	53	-2.288681	9715.287	ug/L	0.050
Fe	54	4601.066876	4020742.436	ug/L	89.356
Mn	55	66.442230	1173436.664	ug/L	1.974
Fe	56	4645.721634	69593872.201	ug/L	62.577
Fe	57	4663.324745	1614490.726	ug/L	25.397
Co	59	0.094312	3603.417	ug/L	0.004
Ni	60	4.159029	11005.101	ug/L	0.098
Ni	62	3.598830	1465.799	ug/L	0.061
Cu	63	0.649682	4034.936	ug/L	0.013
Zn	64	0.476686	5027.044	ug/L	0.059
Cu	65	0.220756	771.374	ug/L	0.004
Zn	66	0.322455	2758.779	ug/L	0.056
Zn	68	1.696523	3767.818	ug/L	0.084
Ge	72		173395.103	ug/L	
As	75	25.797171	44873.720	ug/L	0.921
Se	82	1.921450	375.662	ug/L	0.101
ArCl	77		871.384	ug/L	
Br	79		146851.808	ug/L	

Br	81		172483.577	ug/L	
Y	89		447971.514	ug/L	
Mo	95	1.183934	4909.041	ug/L	0.018
Rh	103		409683.247	ug/L	
Ag	107	0.016489	585.358	ug/L	0.001
Ag	109	0.014295	503.686	ug/L	0.000
Cd	111	-0.073125	105.335	ug/L	0.005
Cd	114	-0.073247	257.006	ug/L	0.001
In	115		586614.167	ug/L	
Sb	121	0.047465	708.701	ug/L	0.000
Sb	123	0.049238	549.762	ug/L	0.006
Ba	137	51.472814	292924.014	ug/L	0.557
Ba	138	50.163622	1854522.911	ug/L	0.432
Tb	159		815403.009	ug/L	
Ho	165		811942.983	ug/L	
Hg	200	0.016649	74.001	ug/L	0.002
Hg	202	0.008192	63.001	ug/L	0.002
Tl	205	-0.083402	1878.548	ug/L	0.006
Pb	208	0.075055	5787.124	ug/L	0.000
Bi	209		686492.851	ug/L	
Se	77	0.079470	823.712	ug/L	0.178
Se	78	-3.460277	9957.217	ug/L	0.493

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		97.894
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge 87.855
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In 89.558
Sb
Sb
Ba
Ba
Tb
Ho 98.355
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123739.13
Sample Date/Time: Thursday, August 22, 2013 11:11:13
Autosampler Position: 86
Sample Description: 1:1 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13.77782

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25721.724	ug/L	
Be	9	-0.013949	6.667	ug/L	0.006
B	10	141.316726	15935.783	ug/L	7.730
B	11	148.900577	85561.991	ug/L	3.268
C	12		593046.687	ug/L	
Na	23	40961.031449	251371789.486	ug/L	967.303
Mg	24	6260.950694	26558181.281	ug/L	196.996
Mg	25	6268.196134	3775282.347	ug/L	177.902
Al	27	5.275589	38769.696	ug/L	0.234
Si	28		9278462.650	ug/L	
P	31	12.042915	15404.700	ug/L	6.830
S	32		87104482.964	ug/L	
Cl	35		10692936.102	ug/L	
K	39	3642.697494	36730273.577	ug/L	88.574
Ca	44	14468.339502	4687987.823	ug/L	477.969
Sc	45		188295.335	ug/L	
Ti	47	0.733903	808.044	ug/L	0.112
Ti	48	20.014502	182447.682	ug/L	0.459
V	51	-0.453181	29881.347	ug/L	0.020
ClO	51		30214.099	ug/L	
Cr	52	-0.016559	9010.077	ug/L	0.018
Cr	53	-1.965836	9489.380	ug/L	0.089
Fe	54	1487.410520	1254065.818	ug/L	60.569
Mn	55	1191.430360	19621322.144	ug/L	41.852
Fe	56	1430.231522	21971445.981	ug/L	66.677
Fe	57	1465.296435	480080.504	ug/L	64.944
Co	59	3.467093	43097.010	ug/L	0.122
Ni	60	2.975739	7366.390	ug/L	0.104
Ni	62	2.483862	961.394	ug/L	0.154
Cu	63	0.523692	3080.553	ug/L	0.029
Zn	64	0.533561	4829.012	ug/L	0.070
Cu	65	0.139682	499.352	ug/L	0.010
Zn	66	0.489350	2814.130	ug/L	0.073
Zn	68	1.029980	2802.793	ug/L	0.071
Ge	72		172742.174	ug/L	
As	75	8.951477	15424.049	ug/L	0.201
Se	82	1.415227	279.953	ug/L	0.086
ArCl	77		831.713	ug/L	
Br	79		107732.049	ug/L	

Br	81		132605.252	ug/L	
Y	89		449744.452	ug/L	
Mo	95	10.298966	41823.117	ug/L	0.154
Rh	103		414251.947	ug/L	
Ag	107	0.020399	641.696	ug/L	0.001
Ag	109	0.021321	598.359	ug/L	0.001
Cd	111	-0.051976	177.337	ug/L	0.001
Cd	114	-0.059315	367.678	ug/L	0.001
In	115		590502.862	ug/L	
Sb	121	0.048174	720.036	ug/L	0.001
Sb	123	0.045846	529.470	ug/L	0.001
Ba	137	17.967912	102969.578	ug/L	0.343
Ba	138	17.876455	665381.262	ug/L	0.444
Tb	159		808021.498	ug/L	
Ho	165		803861.178	ug/L	
Hg	200	-0.000879	18.000	ug/L	0.000
Hg	202	0.000421	30.000	ug/L	0.001
Tl	205	-0.070301	2439.353	ug/L	0.006
Pb	208	0.016166	2116.785	ug/L	0.001
Bi	209		713619.757	ug/L	
Se	77	0.105960	827.713	ug/L	0.059
Se	78	-3.884189	9751.850	ug/L	0.359

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		91.410
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 87.524
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 90.152
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 97.376
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.14
Sample Date/Time: Thursday, August 22, 2013 11:17:46
Autosampler Position: 95
Sample Description: 1:1 Na LR
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.14.77783

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25329.945	ug/L	
Be	9	-0.020990	3.333	ug/L	0.002
B	10	145.885982	16497.462	ug/L	0.462
B	11	147.753841	85103.230	ug/L	0.430
C	12		590346.361	ug/L	
Na	23	40707.657954	250263554.699	ug/L	1376.723
Mg	24	6306.178338	26799747.218	ug/L	238.431
Mg	25	6298.961703	3800896.379	ug/L	215.914
Al	27	5.535809	40584.447	ug/L	0.143
Si	28		9311657.637	ug/L	
P	31	12.494752	15665.068	ug/L	0.552
S	32		83845618.512	ug/L	
Cl	35		10806468.581	ug/L	
K	39	3644.524359	36811311.136	ug/L	141.466
Ca	44	14516.070273	4713149.301	ug/L	407.582
Sc	45		188668.304	ug/L	
Ti	47	0.718847	797.710	ug/L	0.067
Ti	48	20.244576	184981.404	ug/L	0.078
V	51	-0.477948	29624.166	ug/L	0.028
ClO	51		30266.946	ug/L	
Cr	52	-0.018448	9006.826	ug/L	0.022
Cr	53	-1.908580	9581.810	ug/L	0.121
Fe	54	1472.761167	1244522.228	ug/L	76.232
Mn	55	1190.659860	19645414.121	ug/L	48.271
Fe	56	1440.161017	22152799.122	ug/L	47.152
Fe	57	1493.799903	490228.568	ug/L	60.568
Co	59	3.478613	43320.405	ug/L	0.113
Ni	60	2.975095	7381.069	ug/L	0.067
Ni	62	2.541314	985.063	ug/L	0.040
Cu	63	0.574380	3364.323	ug/L	0.015
Zn	64	2.554086	9680.217	ug/L	0.142
Cu	65	0.184131	621.694	ug/L	0.006
Zn	66	2.585758	5824.590	ug/L	0.155
Zn	68	3.005581	4930.052	ug/L	0.198
Ge	72		169814.966	ug/L	
As	75	8.893072	15065.501	ug/L	0.180
Se	82	1.471038	285.045	ug/L	0.213
ArCl	77		820.045	ug/L	
Br	79		110881.660	ug/L	

Br	81		135436.149	ug/L	
Y	89		449197.071	ug/L	
Mo	95	10.633843	42465.445	ug/L	0.033
Rh	103		413454.273	ug/L	
Ag	107	0.019639	623.361	ug/L	0.001
Ag	109	0.023680	620.361	ug/L	0.003
Cd	111	-0.053413	170.337	ug/L	0.003
Cd	114	-0.061597	345.677	ug/L	0.003
In	115		582910.683	ug/L	
Sb	121	0.042513	660.031	ug/L	0.002
Sb	123	0.043496	506.177	ug/L	0.002
Ba	137	18.312632	103609.452	ug/L	0.223
Ba	138	18.249106	670660.504	ug/L	0.225
Tb	159		822087.468	ug/L	
Ho	165		809695.438	ug/L	
Hg	200	-0.001480	16.334	ug/L	0.004
Hg	202	-0.000805	25.000	ug/L	0.001
Tl	205	-0.071536	2404.010	ug/L	0.004
Pb	208	0.029031	2926.546	ug/L	0.001
Bi	209		691751.028	ug/L	
Se	77	0.077263	823.379	ug/L	0.337
Se	78	-3.715388	9833.627	ug/L	0.302

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		91.591
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 86.041
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.993
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 98.083
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.13 MS
Sample Date/Time: Thursday, August 22, 2013 13:10:19
Autosampler Position: 87
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MS.77800

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22970.336	ug/L	
Be	9	502.492254	214270.342	ug/L	17.654
B	10	136.694728	14154.485	ug/L	5.952
B	11	142.959216	75398.139	ug/L	5.442
C	12		866245.687	ug/L	
Na	23	45815.648879	258102395.609	ug/L	1207.927
Mg	24	11345.615424	44187804.090	ug/L	270.073
Mg	25	11405.845232	6306626.751	ug/L	301.641
Al	27	5293.012070	32167791.365	ug/L	150.554
Si	28		8563540.243	ug/L	
P	31	4787.571807	1722887.986	ug/L	124.505
S	32		78582336.603	ug/L	
Cl	35		10852706.475	ug/L	
K	39	8611.208525	78982677.953	ug/L	146.172
Ca	44	19606.248234	5829060.872	ug/L	534.633
Sc	45		172882.087	ug/L	
Ti	47	14.261830	11131.591	ug/L	0.333
Ti	48	26.942125	225566.835	ug/L	0.921
V	51	475.828836	5564640.445	ug/L	15.453
ClO	51		5680839.450	ug/L	
Cr	52	461.976900	4542833.486	ug/L	17.328
Cr	53	452.611002	549538.002	ug/L	22.750
Fe	54	6564.850406	4890383.362	ug/L	324.509
Mn	55	1653.798880	24998897.541	ug/L	66.604
Fe	56	6702.199058	84836315.296	ug/L	327.562
Fe	57	6530.690827	1932686.687	ug/L	331.243
Co	59	456.121203	4934729.921	ug/L	15.825
Ni	60	452.692340	1020725.709	ug/L	16.967
Ni	62	451.471210	151092.860	ug/L	14.850
Cu	63	433.081144	2160937.227	ug/L	14.636
Zn	64	489.527036	1077705.936	ug/L	22.493
Cu	65	432.472489	1079602.316	ug/L	16.565
Zn	66	501.542321	660568.284	ug/L	19.407
Zn	68	498.312527	492090.578	ug/L	19.538
Ge	72		156220.669	ug/L	
As	75	512.082445	805029.721	ug/L	18.012
Se	82	511.096654	85431.930	ug/L	10.641
ArCl	77		64296.243	ug/L	
Br	79		100121.329	ug/L	

Br	81		122645.949	ug/L	
Y	89		408531.249	ug/L	
Mo	95	558.764025	2048606.445	ug/L	5.962
Rh	103		382746.975	ug/L	
Ag	107	157.609181	1985871.321	ug/L	16.034
Ag	109	165.333606	2005311.940	ug/L	3.891
Cd	111	486.004755	1533781.570	ug/L	3.523
Cd	114	488.522681	3574300.016	ug/L	7.083
In	115		551841.574	ug/L	
Sb	121	594.921619	5051172.974	ug/L	5.022
Sb	123	600.377774	3926768.377	ug/L	0.279
Ba	137	509.260775	2725894.776	ug/L	3.288
Ba	138	505.118710	17563716.239	ug/L	3.535
Tb	159		771682.737	ug/L	
Ho	165		757841.984	ug/L	
Hg	200	0.505882	1525.143	ug/L	0.019
Hg	202	0.515061	2055.586	ug/L	0.004
Tl	205	482.857176	20017840.199	ug/L	0.632
Pb	208	474.128836	27420304.002	ug/L	5.665
Bi	209		662758.814	ug/L	
Se	77	415.521380	63561.737	ug/L	2.996
Se	78	413.768687	212086.606	ug/L	2.159

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		83.928
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	79.153
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	84.249
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.801
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.13 MSD
Sample Date/Time: Thursday, August 22, 2013 13:16:52
Autosampler Position: 88
Sample Description: 1:1 Sc mets pre
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MSD.77801

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22088.160	ug/L	
Be	9	516.422783	217619.440	ug/L	19.823
B	10	143.569892	14697.019	ug/L	2.243
B	11	147.829305	77066.059	ug/L	3.185
C	12		867051.523	ug/L	
Na	23	46732.639540	260169637.529	ug/L	1201.231
Mg	24	11516.860678	44321486.210	ug/L	340.997
Mg	25	11575.215580	6324292.900	ug/L	375.299
Al	27	5342.938650	32088660.946	ug/L	157.589
Si	28		8717334.271	ug/L	
P	31	4824.543302	1715412.896	ug/L	169.882
S	32		77805388.787	ug/L	
Cl	35		10742647.264	ug/L	
K	39	8688.835876	78725094.284	ug/L	291.555
Ca	44	19963.356764	5863927.492	ug/L	815.287
Sc	45		170811.886	ug/L	
Ti	47	14.278144	11007.105	ug/L	0.792
Ti	48	28.261852	233999.609	ug/L	0.073
V	51	490.771988	5672245.117	ug/L	9.179
ClO	51		5740888.076	ug/L	
Cr	52	476.141716	4628702.343	ug/L	7.337
Cr	53	466.299823	559548.379	ug/L	7.560
Fe	54	6813.680442	5016848.481	ug/L	151.001
Mn	55	1745.235760	26082762.312	ug/L	28.534
Fe	56	6848.283352	85656258.120	ug/L	151.329
Fe	57	6596.651416	1930025.333	ug/L	213.282
Co	59	464.844696	4970825.429	ug/L	12.043
Ni	60	462.008747	1029548.745	ug/L	17.238
Ni	62	463.602450	153342.306	ug/L	13.130
Cu	63	439.935509	2169960.645	ug/L	7.608
Zn	64	498.240745	1084422.634	ug/L	12.530
Cu	65	442.004963	1090649.034	ug/L	12.995
Zn	66	507.753229	660956.444	ug/L	17.264
Zn	68	505.590590	493476.791	ug/L	16.183
Ge	72		154206.760	ug/L	
As	75	525.286171	815218.902	ug/L	14.275
Se	82	532.070424	87784.236	ug/L	13.163
ArCl	77		64771.578	ug/L	
Br	79		97886.587	ug/L	

Br	81		121861.785	ug/L	
Y	89		400352.289	ug/L	
Mo	95	577.490826	2089273.627	ug/L	7.310
Rh	103		381776.917	ug/L	
Ag	107	50.505725	636516.158	ug/L	0.678
Ag	109	50.436220	611188.073	ug/L	4.124
Cd	111	486.711885	1535595.614	ug/L	20.191
Cd	114	495.251818	3623132.495	ug/L	17.356
In	115		552150.907	ug/L	
Sb	121	601.297899	5104441.461	ug/L	22.136
Sb	123	606.257208	3964935.314	ug/L	18.398
Ba	137	514.406056	2751736.736	ug/L	28.482
Ba	138	505.365102	17566597.540	ug/L	22.201
Tb	159		762024.427	ug/L	
Ho	165		759114.654	ug/L	
Hg	200	0.520233	1569.818	ug/L	0.023
Hg	202	0.515102	2058.587	ug/L	0.011
Tl	205	481.448290	19981647.756	ug/L	15.748
Pb	208	479.161637	27743924.509	ug/L	16.619
Bi	209		658207.787	ug/L	
Se	77	414.229935	63366.709	ug/L	1.106
Se	78	413.516227	211964.300	ug/L	6.863

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		82.923
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 78.132
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.297
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.956
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.13 MS
Sample Date/Time: Thursday, August 22, 2013 13:23:25
Autosampler Position: 89
Sample Description: 1:1 Sc mets post + Ag
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MS.77802

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22653.540	ug/L	
Be	9	504.246642	210659.222	ug/L	8.427
B	10	133.751824	13574.598	ug/L	0.286
B	11	139.219227	71961.812	ug/L	0.314
C	12		930717.423	ug/L	
Na	23	44329.423215	244621432.644	ug/L	665.696
Mg	24	11221.132178	42804076.877	ug/L	231.478
Mg	25	11197.147852	6064009.131	ug/L	278.417
Al	27	5333.419760	31749165.926	ug/L	125.275
Si	28		8200291.093	ug/L	
P	31	4894.173119	1724805.206	ug/L	126.365
S	32		78585034.339	ug/L	
Cl	35		10458620.694	ug/L	
K	39	8494.517457	76311332.708	ug/L	101.325
Ca	44	19053.855738	5549813.392	ug/L	118.842
Sc	45		169266.914	ug/L	
Ti	47	14.240495	10886.623	ug/L	0.265
Ti	48	26.854170	220232.258	ug/L	0.870
V	51	474.957698	5441636.874	ug/L	7.152
ClO	51		5532897.842	ug/L	
Cr	52	460.391157	4436254.922	ug/L	2.073
Cr	53	449.949160	535523.345	ug/L	2.991
Fe	54	6676.826743	4874665.668	ug/L	39.139
Mn	55	1618.437206	23974512.485	ug/L	4.777
Fe	56	6580.602592	81687212.179	ug/L	37.255
Fe	57	6530.063739	1894241.456	ug/L	23.835
Co	59	449.077638	4760748.841	ug/L	0.387
Ni	60	447.290178	988217.545	ug/L	4.484
Ni	62	447.465272	146708.435	ug/L	7.655
Cu	63	428.933729	2096833.361	ug/L	6.256
Zn	64	489.017520	1054940.686	ug/L	12.094
Cu	65	436.956024	1068730.707	ug/L	8.442
Zn	66	502.907617	648963.790	ug/L	10.094
Zn	68	500.229969	483993.023	ug/L	9.952
Ge	72		154271.515	ug/L	
As	75	504.519205	783467.511	ug/L	11.046
Se	82	508.974386	84027.902	ug/L	8.034
ArCl	77		62145.324	ug/L	
Br	79		101303.470	ug/L	

Br	81		124283.411	ug/L	
Y	89		390973.395	ug/L	
Mo	95	545.678079	1975806.513	ug/L	13.019
Rh	103		370589.850	ug/L	
Ag	107	411.308499	5095716.583	ug/L	1.763
Ag	109	410.863135	4900932.538	ug/L	5.751
Cd	111	479.495124	1488411.662	ug/L	10.138
Cd	114	484.410894	3486115.863	ug/L	10.823
In	115		542918.754	ug/L	
Sb	121	562.658423	4701656.417	ug/L	13.694
Sb	123	567.521539	3652796.242	ug/L	11.271
Ba	137	503.352361	2649438.343	ug/L	17.569
Ba	138	497.140501	16999699.748	ug/L	17.159
Tb	159		755332.168	ug/L	
Ho	165		746047.690	ug/L	
Hg	200	0.540282	1603.158	ug/L	0.010
Hg	202	0.521988	2050.585	ug/L	0.000
Tl	205	480.432827	19600708.931	ug/L	11.731
Pb	208	476.892329	27146976.324	ug/L	8.392
Bi	209		656142.085	ug/L	
Se	77	404.893029	61956.695	ug/L	2.084
Se	78	402.300491	206530.761	ug/L	4.928

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		82.173
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 78.165
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 82.887
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 90.373
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.13 MSD
Sample Date/Time: Thursday, August 22, 2013 13:29:57
Autosampler Position: 90
Sample Description: 1:1 Sc mets post + Ag
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.13 MSD.77803

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22562.633	ug/L	
Be	9	505.904517	208453.554	ug/L	11.860
B	10	132.515330	13266.809	ug/L	0.362
B	11	137.575140	70149.410	ug/L	0.194
C	12		917631.212	ug/L	
Na	23	44520.621334	242345710.913	ug/L	446.568
Mg	24	11250.609601	42344398.006	ug/L	38.425
Mg	25	11124.786858	5943660.847	ug/L	119.315
Al	27	5320.889800	31246304.880	ug/L	72.369
Si	28		8047707.089	ug/L	
P	31	4846.193349	1685024.047	ug/L	45.987
S	32		78134512.515	ug/L	
Cl	35		10306144.186	ug/L	
K	39	8452.148687	74896069.625	ug/L	133.528
Ca	44	19100.602586	5487493.802	ug/L	195.198
Sc	45		166969.213	ug/L	
Ti	47	14.683590	11068.513	ug/L	0.111
Ti	48	27.956641	226129.092	ug/L	1.162
V	51	480.046492	5424446.206	ug/L	8.867
ClO	51		5534268.237	ug/L	
Cr	52	465.415301	4422501.816	ug/L	11.322
Cr	53	457.567519	536806.523	ug/L	16.416
Fe	54	6804.173468	4897598.235	ug/L	141.412
Mn	55	1654.508614	24169062.797	ug/L	40.967
Fe	56	6860.503046	83885704.292	ug/L	108.463
Fe	57	6650.622365	1902393.049	ug/L	145.867
Co	59	462.919789	4839347.684	ug/L	11.108
Ni	60	460.059660	1002447.449	ug/L	9.968
Ni	62	460.696554	148977.928	ug/L	9.944
Cu	63	439.468316	2118982.757	ug/L	7.740
Zn	64	495.796325	1054925.626	ug/L	12.039
Cu	65	433.709542	1046248.290	ug/L	10.905
Zn	66	497.386747	633043.131	ug/L	13.881
Zn	68	494.770849	472149.159	ug/L	13.930
Ge	72		147641.495	ug/L	
As	75	522.531661	775851.033	ug/L	22.531
Se	82	523.677821	82647.957	ug/L	25.040
ArCl	77		62233.596	ug/L	
Br	79		99640.116	ug/L	

Br	81		122517.408	ug/L	
Y	89		384791.890	ug/L	
Mo	95	570.159076	1974997.405	ug/L	3.272
Rh	103		366647.413	ug/L	
Ag	107	416.012489	5046184.642	ug/L	5.086
Ag	109	421.418452	4921791.898	ug/L	6.557
Cd	111	495.660724	1506682.141	ug/L	2.141
Cd	114	496.773085	3501003.079	ug/L	2.390
In	115		531508.673	ug/L	
Sb	121	580.490492	4746511.903	ug/L	23.026
Sb	123	581.497816	3662511.870	ug/L	26.951
Ba	137	514.958085	2654568.066	ug/L	9.830
Ba	138	511.386836	17125770.728	ug/L	9.638
Tb	159		742663.592	ug/L	
Ho	165		729924.008	ug/L	
Hg	200	0.526658	1528.810	ug/L	0.010
Hg	202	0.530862	2039.916	ug/L	0.001
Tl	205	488.966172	19524212.824	ug/L	0.895
Pb	208	485.347619	27038128.255	ug/L	0.190
Bi	209		666532.439	ug/L	
Se	77	403.135295	61691.250	ug/L	6.166
Se	78	397.397464	204155.456	ug/L	5.678

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		81.057
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 74.806
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 81.145
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 88.419
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample/Batch Report

User Name: ICPMS1
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\AQUIRE_August222013.sam
Report Date/Time: Friday, August 23, 2013 15:20:18

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
		Calibration Blank		Sample					
2		Hg0.1ppbCS		Sample					
3		Hg1.0ppbCS		Sample					
4		Hg5.0ppbCS		Sample					
9		TM.5ppbCS		Sample					
10		TM5ppbCS		Sample					
11		TM20ppbCS		Sample					
12		Min100CS		Sample					
13		Min1000CS		Sample					
14		Min5000CS		Sample					
5		Reagent Blank		Sample					
6		SCP_ICV		Sample					
15		ERA DWQC_ICV		Sample					
7		ERA WWQC_ICV		Sample					
8		MIN_ICV		Sample					
16		flush		Sample					
17		LLCS	0.05 ppb Hg	Sample					
18		LLCS	50ppb Min + 0.	Sample					
19		LLCS	10ppb Min + 0.	Sample					
20		ICSA		Sample					
21		ICSAB		Sample					
22		5ppm LRC-flush		Sample					
23		flush		Sample					
24		BLK 8-15 A		Sample					
25		BLK 8-15 B		Sample					
26		BLK 8-21 A		Sample					
27		BLK 8-21 B		Sample					
28		LCS 8-15 A		Sample					
29		LCS 8-15 B		Sample					
30		LCS 8-21 A		Sample					
31		LCS 8-21 B		Sample					
32		flush		Sample					
33		flush		Sample					
34		flush		Sample					
35		123529.06		Sample					
36		123529.07		Sample					
37		123529.08		Sample					
38		123529.09		Sample					
39		123529.10		Sample					
40		123529.10 MSpre		Sample					
41		123529.10 MSpre		Sample					
42		flush		Sample					
43		flush		Sample					
44		flush		Sample					
45		123529.11		Sample					
46		123529.12		Sample					
47		123529.13		Sample					
48		123529.14		Sample					
49		123529.15		Sample					

50	123529.16		Sample
51	123529.17		Sample
52	123529.18		Sample
53	123529.19		Sample
54	123529.20		Sample
55	123529.20 M$post		Sample
56	123529.20 M$post		Sample
57	flush		Sample
58	flush		Sample
59	flush		Sample
60	123529.21		Sample
61	123529.22		Sample
62	123529.23		Sample
63	123529.24		Sample
64	123529.25		Sample
65	123529.27		Sample
66	123529.28		Sample
67	123529.29		Sample
68	123739.02		Sample
69	123739.03		Sample
70	123739.03 M$post		Sample
71	123739.03 M$post		Sample
72	flush		Sample
73	flush		Sample
74	flush		Sample
75	123739.04		Sample
76	123739.06		Sample
77	123739.07		Sample
78	123739.08		Sample
79	123739.09		Sample
80	123739.10		Sample
81	123739.11		Sample
82	123739.17		Sample
83	123739.18		Sample
84	123739.19		Sample
85	123739.19 M$post		Sample
86	123739.19 M$post rerun		Sample
87	flush		Sample
88	flush		Sample
89	flush		Sample
90	123739.20		Sample
91	123739.21		Sample
92	123739.22		Sample
93	flush		Sample
94	TCLP BLK	1:100	Sample
95	TCLP LCS	1:100	Sample
96	TCLP Ag LCS	1:10	Sample
97	flush		Sample
98	123770.01	1:100 rerun	Sample
99	123770.02	1:100	Sample
100	123770.03	1:100	Sample
101	123770.04	1:100	Sample
102	123770.05	1:100	Sample
103	123785.01	1:100	Sample
104	123785.02	1:100	Sample
105	123785.03	1:100	Sample
106	123785.03 M$	1:100 Ag rerun	Sample
107	123785.03 M$	1:100 Ag rerun	Sample
108	flush		Sample
109	flush		Sample

110	flush		Sample
111	123579.01	1:100	Sample
112	123645.01	1:100	Sample
113	123645.02	1:100	Sample
114	123750.01	1:100	Sample
115	123750.02	1:100	Sample
116	flush		Sample
117	BLK		Sample
118	filter BLK		Sample
119	Ag LCS		Sample
120	LCS		Sample
121	filter LCS		Sample
122	flush		Sample
123	flush		Sample
124	123810.01		Sample
125	123810.02		Sample
126	123742.01		Sample
127	123742.02		Sample
128	123742.03		Sample
129	123742.04		Sample
130	123742.05		Sample
131	123742.06		Sample
132	123742.07		Sample
133	123742.08		Sample
134	123742.09		Sample
135	123742.10		Sample
136	123742.10 MS		Sample
137	123742.10 MSD		Sample
138	flush		Sample
139	flush		Sample
140	flush		Sample
141	123742.11		Sample
142	123742.12		Sample
143	123681.02		Sample
144	123754.01		Sample
145	123749.01		Sample
146	123786.01		Sample
147	123786.02		Sample
148	123793.01		Sample
149	123767.01		Sample
150	123781.01		Sample
151	123781.01 MS		Sample
152	123781.01 MSD		Sample
153	flush		Sample
154	flush		Sample
155	flush		Sample
156	123790.01		Sample
157	123806.01		Sample
158			Sample
159			Sample
160			Sample

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, August 22, 2013 15:26:11
Sample Description:
Method File: C:\Elandata\Method\EPA200 DAILY.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.017
Tuning File: C:\Elandata\Tuning\EPA.tun
Optimization File: C:\Elandata\Optimize\epa.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

2.47 x 10^-5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	45308.3	45308.347	186.711	0.4
	Rh	102.9	299263.6	299263.587	2070.764	0.7
	In	114.9	419714.9	419714.948	2711.279	0.6
	Pb	208.0	316658.3	316658.274	2019.705	0.6
⌈>	Ba	137.9	383179.7	383179.737	2293.008	0.6
⌊	Ba++	69.0	3282.5	0.009	0.000	1.4
⌈>	Ce	139.9	462958.0	462958.019	2327.080	0.5
⌊	CeO	155.9	11760.4	0.025	0.000	1.5
	Bkgd	220.0	2.2	2.200	2.388	108.5

Current Optimization File Data

Current Value	Description
1.01	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-2150.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.50	AC Rod Offset

74169.7

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.5	4279.5
Co	59	11	6.3	109531.9
In	115	11	7.3	428561.5

74168.7

Instrument Tuning Report

File Name: EPA.tun
File Path: C:\elandata\Tuning\EPA.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.027	606	2087	0.620	
Mg	23.985	23.979	5741	2024	0.640	
Rh	102.905	102.929	25063	1900	0.678	
Ce	139.905	139.929	34038	1961	0.703	
Pb	207.977	207.977	50450	2247	0.690	

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
Blank	Thursday, August 22, 2013 15:41:56	0	0	0	0
Standard 1	Thursday, August 22, 2013 15:48:27	0	0	0	0
Standard 2	Thursday, August 22, 2013 15:54:58	0	0	0	0
Standard 3	Thursday, August 22, 2013 16:01:30	0	0	0	0
Standard 4	Thursday, August 22, 2013 16:08:01	0	0	0	0
Standard 5	Thursday, August 22, 2013 16:14:33	0	0	0	0
Standard 6	Thursday, August 22, 2013 16:21:05	0	0	0	0
Standard 7	Thursday, August 22, 2013 16:27:37	0	0	0	0
Standard 8	Thursday, August 22, 2013 16:34:10	0	0	0	0
Standard 9	Thursday, August 22, 2013 16:40:42	0	0	0	0
QC Std 1	Thursday, August 22, 2013 16:47:13	99	98	98	99
QC Std 2	Thursday, August 22, 2013 16:53:45	100	99	99	102
QC Std 3	Thursday, August 22, 2013 17:00:16	94	95	96	98
QC Std 5	Thursday, August 22, 2013 17:06:47	100	96	99	99
QC Std 6	Thursday, August 22, 2013 17:13:17	99	96	93	98
LLCS	Thursday, August 22, 2013 17:26:18	99	97	96	100
LLCS	Thursday, August 22, 2013 17:32:49	99	99	97	98
LLCS	Thursday, August 22, 2013 17:39:19	98	98	97	101
ICSA	Thursday, August 22, 2013 17:45:50	94	95	86	89
ICSAB	Thursday, August 22, 2013 17:52:22	94	96	87	90
5ppm LRC-flush	Thursday, August 22, 2013 17:58:54	100	101	101	102
BLK 8-15 A	Thursday, August 22, 2013 18:11:58	99	96	98	99
BLK 8-15 B	Thursday, August 22, 2013 18:18:31	101	100	99	100
QC Std 1	Thursday, August 22, 2013 18:25:04	103	99	100	101
QC Std 2	Thursday, August 22, 2013 18:31:35	101	97	98	99
QC Std 5	Thursday, August 22, 2013 18:38:06	99	97	99	100
QC Std 6	Thursday, August 22, 2013 18:44:36	98	94	94	96
BLK 8-21 A	Thursday, August 22, 2013 18:51:07	100	97	98	99
BLK 8-21 B	Thursday, August 22, 2013 18:57:38	102	97	101	100
LCS 8-15 A	Thursday, August 22, 2013 19:04:08	96	90	92	95
LCS 8-15 B	Thursday, August 22, 2013 19:10:39	94	87	90	92
LCS 8-21 A	Thursday, August 22, 2013 19:17:10	90	85	89	91
LCS 8-21 B	Thursday, August 22, 2013 19:23:40	91	85	88	90
123529.06	Thursday, August 22, 2013 19:49:47	103	79	81	88
QC Std 1	Thursday, August 22, 2013 19:56:19	92	87	91	95
QC Std 2	Thursday, August 22, 2013 20:02:50	90	87	91	94
QC Std 5	Thursday, August 22, 2013 20:09:21	90	85	91	93
QC Std 6	Thursday, August 22, 2013 20:15:51	89	88	89	92
123529.07	Thursday, August 22, 2013 20:22:23	105	81	84	89
123529.08	Thursday, August 22, 2013 20:28:56	109	83	83	89
123529.09	Thursday, August 22, 2013 20:35:28	107	84	85	92
123529.1	Thursday, August 22, 2013 20:42:00	109	83	85	90
123529.10 MS	Thursday, August 22, 2013 20:48:31	102	84	80	85
123529.10 MSD	Thursday, August 22, 2013 20:55:02	105	83	83	86
123529.11	Thursday, August 22, 2013 21:21:08	104	85	84	89
QC Std 1	Thursday, August 22, 2013 21:27:40	90	89	91	96
QC Std 2	Thursday, August 22, 2013 21:34:11	92	90	92	96
QC Std 5	Thursday, August 22, 2013 21:40:41	90	89	93	96
QC Std 6	Thursday, August 22, 2013 21:47:12	92	91	91	94
123529.12	Thursday, August 22, 2013 21:53:43	107	88	85	91
123529.13	Thursday, August 22, 2013 22:00:15	108	88	85	91
123529.14	Thursday, August 22, 2013 22:06:48	103	91	92	95
123529.15	Thursday, August 22, 2013 22:13:21	101	89	90	94
123529.16	Thursday, August 22, 2013 22:19:53	101	86	91	92
123529.17	Thursday, August 22, 2013 22:26:25	97	81	82	87
123529.18	Thursday, August 22, 2013 22:32:56	107	86	87	91

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
123529.19	Thursday, August 22, 2013 22:39:28	110	86	87	92
123529.2	Thursday, August 22, 2013 22:46:00	107	81	82	89
123529.20 MS	Thursday, August 22, 2013 22:52:31	100	83	79	84
QC Std 1	Thursday, August 22, 2013 22:59:04	94	92	92	95
QC Std 2	Thursday, August 22, 2013 23:05:35	93	92	93	94
QC Std 5	Thursday, August 22, 2013 23:12:05	94	93	94	96
QC Std 6	Thursday, August 22, 2013 23:18:36	93	91	91	94
123529.20 MSD	Thursday, August 22, 2013 23:25:07	101	82	80	86
123529.21	Thursday, August 22, 2013 23:51:15	105	82	81	89
123529.22	Thursday, August 22, 2013 23:57:48	110	85	87	96
123529.23	Friday, August 23, 2013 00:04:21	102	87	90	94
123529.24	Friday, August 23, 2013 00:10:53	87	84	89	92
123529.25	Friday, August 23, 2013 00:17:25	90	89	92	97
123529.27	Friday, August 23, 2013 00:23:57	110	86	85	91
QC Std 1	Friday, August 23, 2013 00:30:30	92	90	92	95
QC Std 2	Friday, August 23, 2013 00:37:01	92	92	92	95
QC Std 5	Friday, August 23, 2013 00:43:31	89	89	91	93
QC Std 6	Friday, August 23, 2013 00:50:02	94	91	91	95
123529.28	Friday, August 23, 2013 00:56:33	110	90	88	91
123529.29	Friday, August 23, 2013 01:03:05	109	89	88	91
123739.02	Friday, August 23, 2013 01:09:37	110	86	84	91
123739.03	Friday, August 23, 2013 01:16:09	108	84	85	92
123739.03 MS	Friday, August 23, 2013 01:22:41	103	84	82	86
123739.03 MSD	Friday, August 23, 2013 01:29:13	102	84	82	85
123739.04	Friday, August 23, 2013 01:55:24	105	82	85	89
QC Std 1	Friday, August 23, 2013 02:01:56	90	87	92	95
QC Std 2	Friday, August 23, 2013 02:08:27	89	89	91	94
QC Std 5	Friday, August 23, 2013 02:14:57	91	89	91	95
QC Std 6	Friday, August 23, 2013 02:21:28	92	91	88	94
123739.06	Friday, August 23, 2013 02:28:00	107	90	93	94
123739.07	Friday, August 23, 2013 02:34:32	112	91	92	94
123739.08	Friday, August 23, 2013 02:41:04	110	92	93	95
123739.09	Friday, August 23, 2013 02:47:37	103	83	83	90
123739.1	Friday, August 23, 2013 02:54:09	106	84	84	89
123739.11	Friday, August 23, 2013 03:00:41	106	84	83	89
123739.17	Friday, August 23, 2013 03:07:13	112	93	93	96
123739.18	Friday, August 23, 2013 03:13:46	111	89	90	92
123739.19	Friday, August 23, 2013 03:20:18	111	90	94	96
123739.19 MS	Friday, August 23, 2013 03:26:51	108	89	87	90
QC Std 1	Friday, August 23, 2013 03:33:24	97	93	92	94
QC Std 2	Friday, August 23, 2013 03:39:56	97	92	95	96
QC Std 5	Friday, August 23, 2013 03:46:26	96	94	92	95
QC Std 6	Friday, August 23, 2013 03:52:56	94	92	89	93
123739.19 MSD	Friday, August 23, 2013 03:59:28	127	114	136	115
123739.2	Friday, August 23, 2013 04:25:39	112	93	89	94
123739.21	Friday, August 23, 2013 04:32:12	115	93	90	95
123739.22	Friday, August 23, 2013 04:38:44	114	92	88	93
QC Std 1	Friday, August 23, 2013 05:04:55	99	96	94	98
QC Std 2	Friday, August 23, 2013 05:11:26	99	96	95	95
QC Std 5	Friday, August 23, 2013 05:17:56	99	95	95	96
QC Std 6	Friday, August 23, 2013 05:24:27	99	94	92	94
QC Std 1	Friday, August 23, 2013 08:08:12	102	98	94	98
QC Std 2	Friday, August 23, 2013 08:14:43	102	97	95	97
QC Std 5	Friday, August 23, 2013 08:21:13	100	98	96	96
QC Std 6	Friday, August 23, 2013 08:27:44	101	95	90	94
BLK	Friday, August 23, 2013 08:40:51	103	96	97	97

Eastern Analytical, Inc.

Internal Standard Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID	Date/Time of Analysis	Scandium %R	Germanium %R	Indium %R	Holmium %R
filter BLK	Friday, August 23, 2013 08:47:25	102	96	97	98
Ag LCS	Friday, August 23, 2013 08:53:58	102	99	97	98
LCS	Friday, August 23, 2013 09:00:31	99	93	91	92
filter LCS	Friday, August 23, 2013 09:07:05	99	93	90	93
123739.19 MSD	Friday, August 23, 2013 09:43:08	114	92	87	92
QC Std 1	Friday, August 23, 2013 10:09:23	100	93	94	95
QC Std 2	Friday, August 23, 2013 10:15:55	99	94	93	94
QC Std 5	Friday, August 23, 2013 10:22:25	101	95	96	97
QC Std 6	Friday, August 23, 2013 10:28:56	100	94	93	94

Eastern Analytical, Inc.

ICSA/ICSB
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: ICSA
Sample Date/Time: Thursday, August 22, 2013 17:45:50
Sample Description:

Sample ID: ICSAB
Sample Date/Time: Thursday, August 22, 2013 17:52:22
Sample Description:

Concentration Results				QC Std	Int Std	True	Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value	Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	0.10925	ug/L			< 1	Ag	107	8.675998	ug/L	86.76		10
Ag	109	0.102963	ug/L			< 1	Ag	109	8.721145	ug/L	87.21		10
Al	27	46274.6	ug/L	92.55		50000	Al	27	46610.13	ug/L	93.22		50000
As	75	0.09523	ug/L			< 1	As	75	8.976078	ug/L	89.76		10
Ba	137	1.052563	ug/L			1.05	Ba	137	10.22687	ug/L	91.74		10
Be	9	0.116839	ug/L			< 1	Be	9	9.772359	ug/L	97.72		10
Ca	44	47183.27	ug/L	94.37		50000	Ca	44	47230.88	ug/L	94.46		50000
Cd	111	0.139079	ug/L			< 1	Cd	111	9.217678	ug/L	92.18		10
Cd	114	0.146349	ug/L			< 1	Cd	114	9.233359	ug/L	92.33		10
Co	59	0.209585	ug/L			< 1	Co	59	8.977986	ug/L	89.78		10
Cr	52	0.189176	ug/L			< 1	Cr	52	9.328466	ug/L	93.28		10
Cu	63	0.924998	ug/L			< 1	Cu	63	8.815609	ug/L	88.16		10
Cu	65	0.72377	ug/L			< 1	Cu	65	8.583326	ug/L	85.83		10
Fe	54	45320.63	ug/L	90.64		50000	Fe	54	45322.62	ug/L	90.65		50000
Fe	56	45711.12	ug/L	91.42		50000	Fe	56	45755	ug/L	91.51		50000
Fe	57	45838.84	ug/L	91.68		50000	Fe	57	45842.85	ug/L	91.69		50000
Ge	72		ug/L		94.819		Ge	72		ug/L		95.909	
Hg	200	0.051931	ug/L			< 0.1	Hg	200	1.011807	ug/L	101.18		1
Hg	202	0.058356	ug/L			< 0.1	Hg	202	1.013459	ug/L	101.35		1
Ho	165		ug/L		88.799		Ho	165		ug/L		90.321	
In	115		ug/L		85.548		In	115		ug/L		86.825	
K	39	46535.6	ug/L	93.07		50000	K	39	46470.42	ug/L	92.94		50000
Mg	24	45161.48	ug/L	90.32		50000	Mg	24	45905.77	ug/L	91.81		50000
Mg	25	45122.56	ug/L	90.25		50000	Mg	25	45294.78	ug/L	90.59		50000
Mn	55	0.387715	ug/L			< 5	Mn	55	9.234277	ug/L	92.34		10
Na	23	46810.55	ug/L	93.62		50000	Na	23	47288.68	ug/L	94.58		50000
Ni	60	1.861922	ug/L			1.86	Ni	60	10.37515	ug/L	85.13		10
Ni	62	0.785692	ug/L			< 1	Ni	62	9.190081	ug/L	91.90		10
P	31	43526.87	ug/L	87.05		50000	P	31	43429.72	ug/L	86.86		50000
Pb	208	0.236709	ug/L			< 1	Pb	208	9.32466	ug/L	93.25		10
Sb	121	0.193798	ug/L			< 1	Sb	121	10.79015	ug/L	107.90		10
Sb	123	0.196444	ug/L			< 1	Sb	123	10.83188	ug/L	108.32		10
Sc	45		ug/L		94		Sc	45		ug/L		93.897	
Se	82	-0.07801	ug/L			< 1	Se	82	8.251844	ug/L	82.52		10
Tl	205	0.108886	ug/L			< 1	Tl	205	9.291789	ug/L	92.92		10
V	51	1.3943	ug/L			1.39	V	51	10.50287	ug/L	91.09		10
Zn	64	16.91148	ug/L			16.9	Zn	64	28.00213	ug/L	110.91		10
Zn	66	13.44211	ug/L			13.4	Zn	66	25.00711	ug/L	115.65		10
Zn	68	12.94204	ug/L			12.9	Zn	68	24.78699	ug/L	118.45		10

Eastern Analytical, Inc.

Linear Range Check
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	1915.187	ug/L	95.76		2000
B	10	0.547369	ug/L			
Ag	107	1962.435	ug/L	98.12		2000
Ag	109	1948.06	ug/L	97.40		2000
Al	27	1786.075	ug/L	89.30		2000
As	75	2080.388	ug/L	104.02		2000
Ba	138	2107.411	ug/L	105.37		2000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	2118.624	ug/L	105.93		2000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	2192.75	ug/L	109.64		2000
Cu	63	2051.496	ug/L	102.57		2000
Cu	65	2047.486	ug/L	102.37		2000
Fe	54	2052.748	ug/L	102.64		2000
Fe	56	1994.66	ug/L	99.73		2000
Fe	57	1953.271	ug/L	97.66		2000
Ge	72		ug/L		92.208	
Hg	200	0.069113	ug/L			
Hg	202	0.075451	ug/L			
Ho	165		ug/L		101.26	
In	115		ug/L		96.089	
K	39	1912.769	ug/L	95.64		2000
Mg	24	1842.793	ug/L	92.14		2000
Mg	25	1644.939	ug/L	82.25		2000
Mo	95	2209.171	ug/L	110.46		2000
Na	23	1874.281	ug/L	93.71		2000
Ni	60	2121.476	ug/L	106.07		2000
Ni	62	2001.711	ug/L	100.09		2000
P	31	-1.88364	ug/L			
Pb	208	2130.234	ug/L	106.51		2000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	2061.04	ug/L	103.05		2000
Se	82	1988.486	ug/L	99.42		2000
Se	77	1881.467	ug/L	94.07		2000
Se	78	1878.803	ug/L	93.94		2000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.078613	ug/L			
Zn	64	1941.876	ug/L	97.09		2000
Zn	66	1964.373	ug/L	98.22		2000
Zn	68	2024.79	ug/L	101.24		2000

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Sample Description: Linear Range Check

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Li	6		ug/L			
Be	9	5122.086	ug/L	102.44		5000
B	10	1.337862	ug/L			
Ag	107	4892.98	ug/L	97.86		5000
Ag	109	4852.101	ug/L	97.04		5000
Al	27	4443.011	ug/L	88.86		5000
As	75	5233.348	ug/L	104.67		5000
Ba	138	5377.562	ug/L	107.55		5000
Bi	209		ug/L			
Br	79		ug/L			
Cd	114	5342.449	ug/L	106.85		5000
Cl	35		ug/L			
ClO	51		ug/L			
Cr	53	5487.522	ug/L	109.75		5000
Cu	63	4992.413	ug/L	99.85		5000
Cu	65	4962.615	ug/L	99.25		5000
Fe	54	5075.569	ug/L	101.51		5000
Fe	56	5038.408	ug/L	100.77		5000
Fe	57	4849.941	ug/L	97.00		5000
Ge	72		ug/L		89.389	
Hg	200	0.163319	ug/L			
Hg	202	0.157861	ug/L			
Ho	165		ug/L		99.877	
In	115		ug/L		93.603	
K	39	4629.843	ug/L	92.60		5000
Mg	24	4520.756	ug/L	90.42		5000
Mg	25	4489.597	ug/L	89.79		5000
Mo	95	5631.358	ug/L	112.63		5000
Na	23	4579.596	ug/L	91.59		5000
Ni	60	5242.275	ug/L	104.85		5000
Ni	62	4886.569	ug/L	97.73		5000
P	31	-4.44807	ug/L			
Pb	208	5349.065	ug/L	106.98		5000
Rh	103		ug/L			
S	32		ug/L			
Sb	121	5322.991	ug/L	106.46		5000
Se	82	5011.986	ug/L	100.24		5000
Se	77	4637.123	ug/L	92.74		5000
Se	78	4996.563	ug/L	99.93		5000
Si	28		ug/L			
Tb	159		ug/L			
Ti	47	0.20214	ug/L			
Zn	64	4788.644	ug/L	95.77		5000
Zn	66	4809.177	ug/L	96.18		5000
Zn	68	4919.144	ug/L	98.38		5000

Sample ID: 2ppm LRC
Sample Date/Time: Monday, August 19, 2013 12:55:51
Autosampler Position: 22
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\2ppm LRC.77308

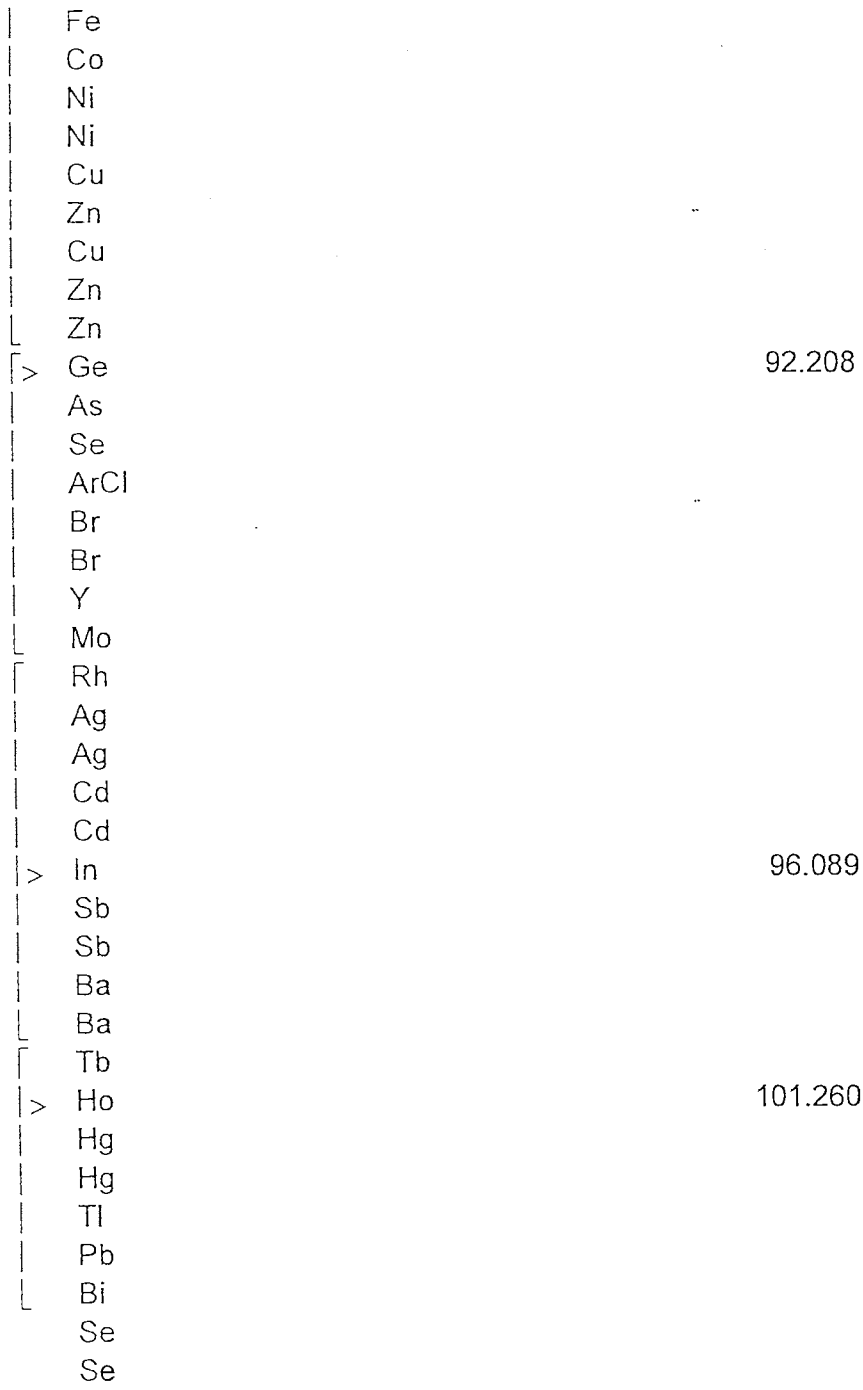
Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26617.594	ug/L	
Be	9	1915.187487	930205.304	ug/L	5.370
B	10	0.547369	141.336	ug/L	0.080
B	11	0.002633	358.011	ug/L	0.017
C	12		636917.882	ug/L	
Na	23	1874.281331	13531245.323	ug/L	27.433
Mg	24	1842.793189	9164934.668	ug/L	18.368
Mg	25	1644.939468	1156628.062	ug/L	33.910
Al	27	1786.075379	14432588.912	ug/L	16.103
Si	28		88595.090	ug/L	
P	31	-1.883636	11405.063	ug/L	4.793
S	32		66032231.878	ug/L	
Cl	35		10647819.945	ug/L	
K	39	1912.769172	22154878.650	ug/L	33.190
Ca	44	2073.970647	737936.338	ug/L	29.026
Sc	45		217224.844	ug/L	
Ti	47	0.078613	285.674	ug/L	0.017
Ti	48	2.270687	21076.735	ug/L	0.041
V	51	2167.722408	27829450.913	ug/L	7.759
ClO	51		28179347.596	ug/L	
Cr	52	2140.808480	23370669.736	ug/L	8.115
Cr	53	2192.749742	2756082.320	ug/L	51.437
Fe	54	2052.748430	1888591.090	ug/L	71.589
Mn	55	2138.049528	35893423.761	ug/L	4.070
Fe	56	1994.659569	33029229.424	ug/L	37.457
Fe	57	1953.271055	663204.886	ug/L	7.125
Co	59	2167.267955	26311799.016	ug/L	30.658
Ni	60	2121.475947	5460295.833	ug/L	22.526
Ni	62	2001.710837	785141.370	ug/L	31.206
Cu	63	2051.495943	12136189.354	ug/L	17.130
Zn	64	1941.876006	5905427.638	ug/L	15.235
Cu	65	2047.486230	6015793.503	ug/L	40.495
Zn	66	1964.372580	3593376.000	ug/L	26.049
Zn	68	2024.790456	2684898.241	ug/L	16.411
Ge	72		202648.421	ug/L	
As	75	2080.388457	4160996.306	ug/L	9.569
Se	82	1988.486055	431116.524	ug/L	17.687
ArCl	77		317203.337	ug/L	
Br	79		7060.815	ug/L	

Br	81		27611.483	ug/L	
Y	89		522836.314	ug/L	
Mo	95	2209.171315	10067581.188	ug/L	83.313
Rh	103		484078.103	ug/L	
Ag	107	1962.434834	28964864.319	ug/L	0.341
Ag	109	1948.059889	27831839.038	ug/L	31.199
Cd	111	2116.318472	7667969.579	ug/L	10.780
Cd	114	2118.624356	17888448.754	ug/L	12.166
In	115		669928.369	ug/L	
Sb	121	2061.039971	23522404.987	ug/L	77.896
Sb	123	2049.863490	18037900.700	ug/L	90.790
Ba	137	2088.104493	11707878.930	ug/L	52.462
Ba	138	2107.410733	76425274.159	ug/L	31.351
Tb	159		888899.631	ug/L	
Ho	165		871040.361	ug/L	
Hg	200	0.069113	235.339	ug/L	0.004
Hg	202	0.075451	324.676	ug/L	0.001
Tl	205	2189.732375	90330070.847	ug/L	9.669
Pb	208	2130.234451	121206064.549	ug/L	5.096
Bi	209		731110.581	ug/L	
Se	77	1881.466838	312114.155	ug/L	2.196
Se	78	1878.803188	1015672.333	ug/L	23.132

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		85.830
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		


Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
Ge
92.208
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
In
96.089
Sb
Sb
Ba
Ba
Tb
Ho
101.260
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 5ppm LRC
Sample Date/Time: Monday, August 19, 2013 13:02:23
Autosampler Position: 23
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\5ppm LRC.77309

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24855.268	ug/L	
Be	9	5122.085666	2421607.012	ug/L	38.748
B	10	1.337862	237.005	ug/L	0.209
B	11	0.002605	348.343	ug/L	0.029
C	12		1002085.266	ug/L	
Na	23	4579.596473	32138317.015	ug/L	58.806
Mg	24	4520.755857	21882390.719	ug/L	14.367
Mg	25	4489.597128	3073222.225	ug/L	87.825
Al	27	4443.011338	34944724.093	ug/L	28.549
Si	28		96327.310	ug/L	
P	31	-4.448072	10006.504	ug/L	0.041
S	32		60050657.034	ug/L	
Cl	35		9766261.255	ug/L	
K	39	4629.843343	51420152.364	ug/L	89.770
Ca	44	5047.036977	1719511.497	ug/L	59.258
Sc	45		211446.807	ug/L	
Ti	47	0.202140	388.346	ug/L	0.015
Ti	48	6.570654	61573.234	ug/L	0.575
V	51	5490.176896	68561785.402	ug/L	16.563
ClO	51		69959088.108	ug/L	
Cr	52	5373.168713	57081339.113	ug/L	19.131
Cr	53	5487.521708	6699644.879	ug/L	25.741
Fe	54	5075.568600	4459516.244	ug/L	41.608
Mn	55	5456.300635	89164468.890	ug/L	40.877
Fe	56	5038.407672	76315987.518	ug/L	159.031
Fe	57	4849.940738	1590689.953	ug/L	25.967
Co	59	5376.044450	63534083.000	ug/L	6.103
Ni	60	5242.274642	13134349.530	ug/L	30.661
Ni	62	4886.569010	1865864.804	ug/L	44.200
Cu	63	4992.413293	28750056.751	ug/L	28.124
Zn	64	4788.644009	14169564.945	ug/L	65.944
Cu	65	4962.614774	14193984.687	ug/L	82.234
Zn	66	4809.176642	8560067.821	ug/L	74.942
Zn	68	4919.143970	6347026.470	ug/L	13.910
Ge	72		196453.370	ug/L	
As	75	5233.347754	10147347.860	ug/L	44.903
Se	82	5011.986391	1053326.027	ug/L	32.277
ArCl	77		780337.192	ug/L	
Br	79		8726.280	ug/L	

Br	81		29556.598	ug/L	
Y	89		500265.038	ug/L	
Mo	95	5631.357936	24876870.045	ug/L	99.404
Rh	103		465045.185	ug/L	
Ag	107	4892.980085	70341299.197	ug/L	86.181
Ag	109	4852.101374	67515191.298	ug/L	142.409
Cd	111	5349.350234	18878646.294	ug/L	36.895
Cd	114	5342.449446	43938714.212	ug/L	2.176
In	115		652602.014	ug/L	
Sb	121	5322.990535	59183335.737	ug/L	78.282
Sb	123	5279.331319	45254559.423	ug/L	30.279
Ba	137	5334.055298	29129678.898	ug/L	51.853
Ba	138	5377.561851	189936142.403	ug/L	92.517
Tb	159		883012.549	ug/L	
Ho	165		859150.187	ug/L	
Hg	200	0.163319	512.686	ug/L	0.004
Hg	202	0.157861	638.362	ug/L	0.002
Tl	205	5365.851847	218318073.038	ug/L	25.449
Pb	208	5349.064632	300182528.820	ug/L	40.130
Bi	209		740870.800	ug/L	
Se	77	4637.122633	768001.892	ug/L	14.015
Se	78	4996.563380	2680207.499	ug/L	10.948

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		83.547
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 89.389
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.603
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 99.877
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	QC Std 1	Sample ID:	QC Std 1
Sample Date/Time:	Thursday, August 22, 2013 16:47:13	Sample Date/Time:	Thursday, August 22, 2013 18:25:04
Sample Description:	Blank	Sample Description:	Blank

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.00288	ug/L		< 1	Ag	107	-0.004755	ug/L		< 1
Ag	109	-0.001427	ug/L		< 1	Ag	109	-0.009027	ug/L		< 1
Al	27	0.166198	ug/L		< 50	Al	27	0.09972	ug/L		< 50
As	75	-0.020539	ug/L		< 1	As	75	-0.012135	ug/L		< 1
Ba	137	0.016247	ug/L		< 1	Ba	137	0.014394	ug/L		< 1
Be	9	0.001677	ug/L		< 1	Be	9	0.004487	ug/L		< 1
Ca	44	5.131493	ug/L		< 50	Ca	44	4.913804	ug/L		< 50
Cd	111	-0.011442	ug/L		< 1	Cd	111	-0.017141	ug/L		< 1
Cd	114	-0.012872	ug/L		< 1	Cd	114	-0.017045	ug/L		< 1
Co	59	-0.019614	ug/L		< 1	Co	59	-0.030714	ug/L		< 1
Cr	52	-0.023574	ug/L		< 1	Cr	52	-0.009282	ug/L		< 1
Cu	63	0.020945	ug/L		< 1	Cu	63	0.011875	ug/L		< 1
Cu	65	0.01887	ug/L		< 1	Cu	65	0.015392	ug/L		< 1
Fe	54	-2.730395	ug/L		< 50	Fe	54	-4.680451	ug/L		< 50
Fe	56	-26.552656	ug/L		< 50	Fe	56	-29.560498	ug/L		< 50
Fe	57	1.378244	ug/L		< 50	Fe	57	-0.559566	ug/L		< 50
Ge	72		ug/L	97.845		Ge	72		ug/L	99.25	
Hg	200	0.00231	ug/L		< 0.2	Hg	200	-0.002012	ug/L		< 0.2
Hg	202	-0.000462	ug/L		< 0.2	Hg	202	-0.000355	ug/L		< 0.2
Ho	165		ug/L	98.903		Ho	165		ug/L	101.024	
In	115		ug/L	98.21		In	115		ug/L	99.753	
K	39	0.69439	ug/L		< 50	K	39	-1.442941	ug/L		< 50
Mg	24	0.169756	ug/L		< 50	Mg	24	0.17013	ug/L		< 50
Mg	25	0.237526	ug/L		< 50	Mg	25	0.130263	ug/L		< 50
Mn	55	-0.006818	ug/L		< 5	Mn	55	-0.009424	ug/L		< 5
Na	23	0.964753	ug/L		< 5000	Na	23	0.742876	ug/L		< 5000
Ni	60	0.008442	ug/L		< 1	Ni	60	0.006362	ug/L		< 1
Ni	62	0.010002	ug/L		< 1	Ni	62	-0.011378	ug/L		< 1
P	31	-1.902971	ug/L		< 50	P	31	-3.719835	ug/L		< 50
Pb	208	-0.007987	ug/L		< 1	Pb	208	-0.009598	ug/L		< 1
Sb	121	0.024595	ug/L		< 1	Sb	121	-0.027285	ug/L		< 1
Sb	123	0.025482	ug/L		< 1	Sb	123	-0.030767	ug/L		< 1
Sc	45		ug/L	98.945		Sc	45		ug/L	103.001	
Se	82	-0.089321	ug/L		< 1	Se	82	-0.087207	ug/L		< 1
Tl	205	0.000109	ug/L		< 1	Tl	205	-0.003923	ug/L		< 1
V	51	0.16852	ug/L		< 1	V	51	0.205647	ug/L		< 1
Zn	64	-4.167518	ug/L		< 5	Zn	64	-4.197418	ug/L		< 5
Zn	66	-4.375705	ug/L		< 5	Zn	66	-4.346306	ug/L		< 5
Zn	68	-4.175732	ug/L		< 5	Zn	68	-4.233085	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 19:56:19
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.092594	ug/L		< 1
Ag	109	0.08897	ug/L		< 1
Al	27	0.082167	ug/L		< 50
As	75	0.104204	ug/L		< 1
Ba	137	0.017637	ug/L		< 1
Be	9	0.006625	ug/L		< 1
Ca	44	3.792852	ug/L		< 50
Cd	111	-0.012429	ug/L		< 1
Cd	114	-0.010982	ug/L		< 1
Co	59	-0.028645	ug/L		< 1
Cr	52	-0.094642	ug/L		< 1
Cu	63	0.038563	ug/L		< 1
Cu	65	0.038448	ug/L		< 1
Fe	54	-6.146638	ug/L		< 50
Fe	56	-35.823328	ug/L		< 50
Fe	57	0.726963	ug/L		< 50
Ge	72		ug/L	87.49	
Hg	200	0.001982	ug/L		< 0.2
Hg	202	0.000597	ug/L		< 0.2
Ho	165		ug/L	94.505	
In	115		ug/L	91.385	
K	39	0.873859	ug/L		< 50
Mg	24	0.388273	ug/L		< 50
Mg	25	0.292562	ug/L		< 50
Mn	55	0.003266	ug/L		< 5
Na	23	3.360789	ug/L		< 5000
Ni	60	0.009736	ug/L		< 1
Ni	62	0.034331	ug/L		< 1
P	31	0.8432	ug/L		< 50
Pb	208	-0.001903	ug/L		< 1
Sb	121	0.316542	ug/L		< 1
Sb	123	0.311184	ug/L		< 1
Sc	45		ug/L	92.236	
Se	82	0.124668	ug/L		< 1
Tl	205	0.006733	ug/L		< 1
V	51	0.023175	ug/L		< 1
Zn	64	-4.190459	ug/L		< 5
Zn	66	-4.379651	ug/L		< 5
Zn	68	-4.168576	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 21:27:40
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.017322	ug/L		< 1
Ag	109	0.015247	ug/L		< 1
Al	27	0.175738	ug/L		< 50
As	75	0.136615	ug/L		< 1
Ba	137	0.015209	ug/L		< 1
Be	9	0.007013	ug/L		< 1
Ca	44	4.600125	ug/L		< 50
Cd	111	-0.009414	ug/L		< 1
Cd	114	-0.010549	ug/L		< 1
Co	59	-0.021275	ug/L		< 1
Cr	52	-0.017707	ug/L		< 1
Cu	63	0.033542	ug/L		< 1
Cu	65	0.028816	ug/L		< 1
Fe	54	3.7492	ug/L		< 50
Fe	56	-19.868182	ug/L		< 50
Fe	57	4.172191	ug/L		< 50
Ge	72		ug/L	89.196	
Hg	200	0.002913	ug/L		< 0.2
Hg	202	0.001257	ug/L		< 0.2
Ho	165		ug/L	95.544	
In	115		ug/L	90.944	
K	39	3.981434	ug/L		< 50
Mg	24	0.33346	ug/L		< 50
Mg	25	0.405338	ug/L		< 50
Mn	55	0.043532	ug/L		< 5
Na	23	4.882439	ug/L		< 5000
Ni	60	0.018484	ug/L		< 1
Ni	62	0.045415	ug/L		< 1
P	31	-0.27048	ug/L		< 50
Pb	208	-0.004011	ug/L		< 1
Sb	121	0.065293	ug/L		< 1
Sb	123	0.061799	ug/L		< 1
Sc	45		ug/L	89.713	
Se	82	0.199582	ug/L		< 1
Tl	205	0.005399	ug/L		< 1
V	51	0.144611	ug/L		< 1
Zn	64	-4.152414	ug/L		< 5
Zn	66	-4.310299	ug/L		< 5
Zn	68	-4.096778	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 1
Sample Date/Time: Thursday, August 22, 2013 22:59:04
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	1.935126	ug/L		< 1
Ag	109	1.942273	ug/L		< 1
Al	27	0.255746	ug/L		< 50
As	75	0.377018	ug/L		< 1
Ba	137	0.029943	ug/L		< 1
Be	9	0.014011	ug/L		< 1
Ca	44	6.02287	ug/L		< 50
Cd	111	0.008876	ug/L		< 1
Cd	114	0.006823	ug/L		< 1
Co	59	-0.019263	ug/L		< 1
Cr	52	-0.001465	ug/L		< 1
Cu	63	0.080106	ug/L		< 1
Cu	65	0.07356	ug/L		< 1
Fe	54	1.350316	ug/L		< 50
Fe	56	-18.734339	ug/L		< 50
Fe	57	4.830426	ug/L		< 50
Ge	72		ug/L	91.891	
Hg	200	0.007438	ug/L		< 0.2
Hg	202	0.008801	ug/L		< 0.2
Ho	165		ug/L	95.137	
In	115		ug/L	92.493	
K	39	5.238189	ug/L		< 50
Mg	24	0.60105	ug/L		< 50
Mg	25	0.551776	ug/L		< 50
Mn	55	0.039101	ug/L		< 5
Na	23	11.240364	ug/L		< 5000
Ni	60	0.031855	ug/L		< 1
Ni	62	0.054933	ug/L		< 1
P	31	-0.857223	ug/L		< 50
Pb	208	0.023207	ug/L		< 1
Sb	121	4.123163	ug/L		< 1
Sb	123	4.139029	ug/L		< 1
Sc	45		ug/L	94.352	
Se	82	0.522882	ug/L		< 1
Tl	205	0.018198	ug/L		< 1
V	51	0.289377	ug/L		< 1
Zn	64	-4.114088	ug/L		< 5
Zn	66	-4.309209	ug/L		< 5
Zn	68	-4.156359	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Friday, August 23, 2013 00:30:30
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.084765	ug/L		< 1
Ag	109	0.080998	ug/L		< 1
Al	27	0.122851	ug/L		< 50
As	75	0.025728	ug/L		< 1
Ba	137	0.015567	ug/L		< 1
Be	9	0.009213	ug/L		< 1
Ca	44	2.902046	ug/L		< 50
Cd	111	-0.015398	ug/L		< 1
Cd	114	-0.016941	ug/L		< 1
Co	59	-0.026067	ug/L		< 1
Cr	52	-0.066249	ug/L		< 1
Cu	63	0.030485	ug/L		< 1
Cu	65	0.017267	ug/L		< 1
Fe	54	-0.174202	ug/L		< 50
Fe	56	-28.431724	ug/L		< 50
Fe	57	2.231186	ug/L		< 50
Ge	72		ug/L	89.912	
Hg	200	0.001696	ug/L		< 0.2
Hg	202	0.000049	ug/L		< 0.2
Ho	165		ug/L	95.088	
In	115		ug/L	91.968	
K	39	2.852857	ug/L		< 50
Mg	24	0.361887	ug/L		< 50
Mg	25	0.260592	ug/L		< 50
Mn	55	0.006387	ug/L		< 5
Na	23	7.077148	ug/L		< 5000
Ni	60	0.026046	ug/L		< 1
Ni	62	0.053701	ug/L		< 1
P	31	4.117037	ug/L		< 50
Pb	208	-0.006897	ug/L		< 1
Sb	121	0.045871	ug/L		< 1
Sb	123	0.049355	ug/L		< 1
Sc	45		ug/L	92.308	
Se	82	0.003461	ug/L		< 1
Tl	205	-0.010253	ug/L		< 1
V	51	0.055124	ug/L		< 1
Zn	64	-4.176364	ug/L		< 5
Zn	66	-4.351739	ug/L		< 5
Zn	68	-4.121577	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 1
Sample Date/Time: Friday, August 23, 2013 02:01:56
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.2959	ug/L		< 1
Ag	109	0.311169	ug/L		< 1
Al	27	0.145084	ug/L		< 50
As	75	0.032659	ug/L		< 1
Ba	137	0.01616	ug/L		< 1
Be	9	0.010512	ug/L		< 1
Ca	44	4.377962	ug/L		< 50
Cd	111	-0.013041	ug/L		< 1
Cd	114	-0.013343	ug/L		< 1
Co	59	-0.02824	ug/L		< 1
Cr	52	-0.077565	ug/L		< 1
Cu	63	0.03905	ug/L		< 1
Cu	65	0.027446	ug/L		< 1
Fe	54	-1.374353	ug/L		< 50
Fe	56	-29.748133	ug/L		< 50
Fe	57	0.556539	ug/L		< 50
Ge	72		ug/L	87.086	
Hg	200	0.001913	ug/L		< 0.2
Hg	202	0.000322	ug/L		< 0.2
Ho	165		ug/L	95.287	
In	115		ug/L	91.6	
K	39	6.442756	ug/L		< 50
Mg	24	0.40944	ug/L		< 50
Mg	25	0.355047	ug/L		< 50
Mn	55	0.012864	ug/L		< 5
Na	23	9.34109	ug/L		< 5000
Ni	60	0.020138	ug/L		< 1
Ni	62	0.04945	ug/L		< 1
P	31	0.74298	ug/L		< 50
Pb	208	-0.004533	ug/L		< 1
Sb	121	0.221065	ug/L		< 1
Sb	123	0.221424	ug/L		< 1
Sc	45		ug/L	90.155	
Se	82	0.086179	ug/L		< 1
Tl	205	-0.008016	ug/L		< 1
V	51	0.074424	ug/L		< 1
Zn	64	-4.161933	ug/L		< 5
Zn	66	-4.334594	ug/L		< 5
Zn	68	-4.186626	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Friday, August 23, 2013 03:33:24
Sample Description: Blank

Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL
Ag	107	1.105295	ug/L		< 1
Ag	109	1.104851	ug/L		< 1
Al	27	0.285032	ug/L		< 50
As	75	0.328481	ug/L		< 1
Ba	137	0.027881	ug/L		< 1
Be	9	0.024206	ug/L		< 1
Ca	44	4.742431	ug/L		< 50
Cd	111	0.001649	ug/L		< 1
Cd	114	0.008277	ug/L		< 1
Co	59	-0.012577	ug/L		< 1
Cr	52	-0.097762	ug/L		< 1
Cu	63	0.076486	ug/L		< 1
Cu	65	0.075679	ug/L		< 1
Fe	54	-2.497028	ug/L		< 50
Fe	56	-37.961189	ug/L		< 50
Fe	57	0.6183	ug/L		< 50
Ge	72		ug/L	93.182	
Hg	200	0.00615	ug/L		< 0.2
Hg	202	0.00565	ug/L		< 0.2
Ho	165		ug/L	94.432	
In	115		ug/L	91.767	
K	39	2.706805	ug/L		< 50
Mg	24	0.341552	ug/L		< 50
Mg	25	0.306897	ug/L		< 50
Mn	55	0.019533	ug/L		< 5
Na	23	7.002778	ug/L		< 5000
Ni	60	0.027345	ug/L		< 1
Ni	62	0.002165	ug/L		< 1
P	31	-0.347892	ug/L		< 50
Pb	208	0.022884	ug/L		< 1
Sb	121	4.164826	ug/L		< 1
Sb	123	4.143334	ug/L		< 1
Sc	45		ug/L	96.906	
Se	82	0.196622	ug/L		< 1
Tl	205	0.065663	ug/L		< 1
V	51	-0.004735	ug/L		< 1
Zn	64	-4.143944	ug/L		< 5
Zn	66	-4.348512	ug/L		< 5
Zn	68	-4.14568	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID:	**QC Std 1**	**Sample ID:**	**QC Std 1**
Sample Date/Time:	**Friday, August 23, 2013 05:04:55**	**Sample Date/Time:**	**Friday, August 23, 2013 06:36:32**
Sample Description:	**Blank**	**Sample Description:**	**Blank**

Concentration Results				Int Std		Concentration Results				Int Std	
Analyte	Mass	Conc.	Units	% R	RL	Analyte	Mass	Conc.	Units	% R	RL
Ag	107	0.192535	ug/L		< 1	Ag	107	0.125436	ug/L		< 1
Ag	109	0.188036	ug/L		< 1	Ag	109	0.127309	ug/L		< 1
Al	27	0.15449	ug/L		< 50	Al	27	0.132461	ug/L		< 50
As	75	0.054187	ug/L		< 1	As	75	-0.102488	ug/L		< 1
Ba	137	0.015224	ug/L		< 1	Ba	137	0.014575	ug/L		< 1
Be	9	0.000051	ug/L		< 1	Be	9	0.000852	ug/L		< 1
Ca	44	4.797252	ug/L		< 50	Ca	44	4.79114	ug/L		< 50
Cd	111	0.000378	ug/L		< 1	Cd	111	-0.010032	ug/L		< 1
Cd	114	0.001223	ug/L		< 1	Cd	114	-0.009814	ug/L		< 1
Co	59	-0.02736	ug/L		< 1	Co	59	-0.020433	ug/L		< 1
Cr	52	-0.086512	ug/L		< 1	Cr	52	-0.089616	ug/L		< 1
Cu	63	0.026321	ug/L		< 1	Cu	63	0.020171	ug/L		< 1
Cu	65	0.023829	ug/L		< 1	Cu	65	0.01998	ug/L		< 1
Fe	54	-6.103426	ug/L		< 50	Fe	54	-5.898347	ug/L		< 50
Fe	56	-38.431253	ug/L		< 50	Fe	56	-36.089282	ug/L		< 50
Fe	57	-1.497549	ug/L		< 50	Fe	57	-0.47131	ug/L		< 50
Ge	72		ug/L	96.05		Ge	72		ug/L	96.759	
Hg	200	0.007606	ug/L		< 0.2	Hg	200	-0.000565	ug/L		< 0.2
Hg	202	0.004278	ug/L		< 0.2	Hg	202	0.00012	ug/L		< 0.2
Ho	165		ug/L	97.508		Ho	165		ug/L	97.599	
In	115		ug/L	94.038		In	115		ug/L	96.307	
K	39	4.534102	ug/L		< 50	K	39	0.838076	ug/L		< 50
Mg	24	0.244765	ug/L		< 50	Mg	24	0.242393	ug/L		< 50
Mg	25	0.180653	ug/L		< 50	Mg	25	0.184953	ug/L		< 50
Mn	55	-0.000807	ug/L		< 5	Mn	55	0.019722	ug/L		< 5
Na	23	3.546328	ug/L		< 5000	Na	23	2.581732	ug/L		< 5000
Ni	60	0.019721	ug/L		< 1	Ni	60	0.016156	ug/L		< 1
Ni	62	0.025363	ug/L		< 1	Ni	62	0.021845	ug/L		< 1
P	31	4.156386	ug/L		< 50	P	31	-0.833033	ug/L		< 50
Pb	208	-0.004798	ug/L		< 1	Pb	208	-0.007756	ug/L		< 1
Sb	121	0.04288	ug/L		< 1	Sb	121	0.016589	ug/L		< 1
Sb	123	0.038006	ug/L		< 1	Sb	123	0.019879	ug/L		< 1
Sc	45		ug/L	99.346		Sc	45		ug/L	99.592	
Se	82	-0.048339	ug/L		< 1	Se	82	-0.079547	ug/L		< 1
Tl	205	0.001425	ug/L		< 1	Tl	205	0.001262	ug/L		< 1
V	51	-0.029494	ug/L		< 1	V	51	0.02282	ug/L		< 1
Zn	64	-4.139356	ug/L		< 5	Zn	64	-4.152061	ug/L		< 5
Zn	66	-4.330827	ug/L		< 5	Zn	66	-4.292928	ug/L		< 5
Zn	68	-4.150901	ug/L		< 5	Zn	68	-4.143167	ug/L		< 5

Eastern Analytical, Inc.

Blank Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 1
Sample Date/Time: Friday, August 23, 2013 08:08:12
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	0.320846	ug/L		< 1
Ag	109	0.312255	ug/L		< 1
Al	27	0.1844	ug/L		< 50
As	75	0.023144	ug/L		< 1
Ba	137	0.017719	ug/L		< 1
Be	9	0.006173	ug/L		< 1
Ca	44	5.608776	ug/L		< 50
Cd	111	-0.013225	ug/L		< 1
Cd	114	-0.012974	ug/L		< 1
Co	59	-0.020821	ug/L		< 1
Cr	52	-0.098376	ug/L		< 1
Cu	63	0.022093	ug/L		< 1
Cu	65	0.019785	ug/L		< 1
Fe	54	-5.641492	ug/L		< 50
Fe	56	-39.172404	ug/L		< 50
Fe	57	-2.889153	ug/L		< 50
Ge	72		ug/L	97.958	
Hg	200	-0.001298	ug/L		< 0.2
Hg	202	-0.001959	ug/L		< 0.2
Ho	165		ug/L	97.741	
In	115		ug/L	94.089	
K	39	-0.025318	ug/L		< 50
Mg	24	0.194286	ug/L		< 50
Mg	25	0.202249	ug/L		< 50
Mn	55	0.006131	ug/L		< 5
Na	23	2.034555	ug/L		< 5000
Ni	60	0.01421	ug/L		< 1
Ni	62	0.004518	ug/L		< 1
P	31	-1.108328	ug/L		< 50
Pb	208	-0.004534	ug/L		< 1
Sb	121	0.12248	ug/L		< 1
Sb	123	0.117317	ug/L		< 1
Sc	45		ug/L	101.645	
Se	82	-0.202778	ug/L		< 1
Tl	205	-0.001998	ug/L		< 1
V	51	-0.088144	ug/L		< 1
Zn	64	-4.173198	ug/L		< 5
Zn	66	-4.311027	ug/L		< 5
Zn	68	-4.153631	ug/L		< 5

Sample ID: QC Std 1
Sample Date/Time: Friday, August 23, 2013 10:09:23
Sample Description: Blank

Concentration Results

Analyte	Mass	Conc.	Units	Int Std % R	RL
Ag	107	2.088401	ug/L		< 1
Ag	109	2.246634	ug/L		< 1
Al	27	0.258775	ug/L		< 50
As	75	0.128128	ug/L		< 1
Ba	137	0.025009	ug/L		< 1
Be	9	0.021764	ug/L		< 1
Ca	44	5.205703	ug/L		< 50
Cd	111	-0.004622	ug/L		< 1
Cd	114	-0.002397	ug/L		< 1
Co	59	-0.009573	ug/L		< 1
Cr	52	-0.144825	ug/L		< 1
Cu	63	0.055325	ug/L		< 1
Cu	65	0.057662	ug/L		< 1
Fe	54	-4.767946	ug/L		< 50
Fe	56	-43.363833	ug/L		< 50
Fe	57	-5.167207	ug/L		< 50
Ge	72		ug/L	93.476	
Hg	200	0.00372	ug/L		< 0.2
Hg	202	0.002916	ug/L		< 0.2
Ho	165		ug/L	95.245	
In	115		ug/L	94.436	
K	39	-2.845794	ug/L		< 50
Mg	24	0.229383	ug/L		< 50
Mg	25	0.142436	ug/L		< 50
Mn	55	0.012118	ug/L		< 5
Na	23	1.451306	ug/L		< 5000
Ni	60	0.012279	ug/L		< 1
Ni	62	0.027539	ug/L		< 1
P	31	-3.56593	ug/L		< 50
Pb	208	0.008587	ug/L		< 1
Sb	121	1.763132	ug/L		< 1
Sb	123	1.784279	ug/L		< 1
Sc	45		ug/L	100.076	
Se	82	-0.029872	ug/L		< 1
Tl	205	0.016074	ug/L		< 1
V	51	-0.152447	ug/L		< 1
Zn	64	-4.153791	ug/L		< 5
Zn	66	-4.294828	ug/L		< 5
Zn	68	-4.155556	ug/L		< 5

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 16:53:45
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	69.914082	ug/L	69.359		100
Ag	109	70.7916	ug/L	70.23		100
Al	27	97.513398	ug/L	97.319		100
As	75	97.314703	ug/L	96.447		100
Ba	137	97.235405	ug/L	96.945		100
Be	9	98.212635	ug/L	98.311		100
Ca	44	99.450405	ug/L	98.661		100
Cd	111	98.228713	ug/L	98.229		100
Cd	114	99.015291	ug/L	99.015		100
Co	59	97.405097	ug/L	97.308		100
Cr	52	96.117143	ug/L	95.639		100
Cu	63	97.23104	ug/L	97.622		100
Cu	65	96.954656	ug/L	97.344		100
Fe	54	97.161144	ug/L	96.678		100
Fe	56	103.281012	ug/L	102.767		100
Fe	57	92.071286	ug/L	91.613		100
Ge	72		ug/L		99.169	
Hg	200	0.967808	ug/L	96.781		1
Hg	202	0.957973	ug/L	95.797		1
Ho	165		ug/L		102.353	
In	115		ug/L		99.152	
K	39	978.474501	ug/L	97.071		1000
Mg	24	99.578295	ug/L	99.182		100
Mg	25	98.397766	ug/L	98.006		100
Mn	55	95.885316	ug/L	95.313		100
Na	23	99.094923	ug/L	97.63		100
Ni	60	98.485334	ug/L	98.093		100
Ni	62	97.375512	ug/L	96.988		100
Pb	208	97.089425	ug/L	96.319		100
Sb	121	93.248028	ug/L	92.877		100
Sb	123	93.947803	ug/L	93.574		100
Sc	45		ug/L		99.82	
Se	82	98.384228	ug/L	97.41		100
Tl	205	97.966464	ug/L	98.261		100
V	51	96.308991	ug/L	95.355		100
Zn	64	121.339917	ug/L	120.856		100
Zn	66	123.638421	ug/L	123.146		100
Zn	68	121.726215	ug/L	121.241		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 18:31:35
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	67.735473	ug/L	67.198		100
Ag	109	68.751923	ug/L	68.206		100
Al	27	98.987153	ug/L	98.79		100
As	75	98.803177	ug/L	97.922		100
Ba	137	98.662689	ug/L	98.368		100
Be	9	99.726474	ug/L	99.826		100
Ca	44	102.433032	ug/L	101.62		100
Cd	111	99.254413	ug/L	99.254		100
Cd	114	100.380591	ug/L	100.381		100
Co	59	96.01118	ug/L	95.915		100
Cr	52	96.291163	ug/L	95.812		100
Cu	63	97.701232	ug/L	98.094		100
Cu	65	97.83007	ug/L	98.223		100
Fe	54	96.832321	ug/L	96.351		100
Fe	56	103.098073	ug/L	102.585		100
Fe	57	92.27349	ug/L	91.814		100
Ge	72		ug/L		97.073	
Hg	200	0.977529	ug/L	97.753		1
Hg	202	0.985265	ug/L	98.527		1
Ho	165		ug/L		99.444	
In	115		ug/L		98.347	
K	39	971.59077	ug/L	96.388		1000
Mg	24	101.670227	ug/L	101.265		100
Mg	25	100.927952	ug/L	100.526		100
Mn	55	94.721726	ug/L	94.157		100
Na	23	100.799159	ug/L	99.31		100
Ni	60	97.821411	ug/L	97.432		100
Ni	62	97.215688	ug/L	96.828		100
Pb	208	99.180941	ug/L	98.394		100
Sb	121	94.379225	ug/L	94.003		100
Sb	123	94.384196	ug/L	94.008		100
Sc	45		ug/L		100.637	
Se	82	101.099714	ug/L	100.099		100
Tl	205	99.297295	ug/L	99.596		100
V	51	96.257677	ug/L	95.305		100
Zn	64	121.49103	ug/L	121.007		100
Zn	66	123.700434	ug/L	123.208		100
Zn	68	120.893665	ug/L	120.412		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 20:02:50
Sample Description: CV-Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Ag	107	65.103948	ug/L	64.587		100
Ag	109	69.024178	ug/L	68.476		100
Al	27	101.283856	ug/L	101.082		100
As	75	99.763381	ug/L	98.874		100
Ba	137	99.000206	ug/L	98.704		100
Be	9	104.77154	ug/L	104.876		100
Ca	44	101.512399	ug/L	100.707		100
Cd	111	100.621237	ug/L	100.621		100
Cd	114	102.059587	ug/L	102.06		100
Co	59	99.026054	ug/L	98.927		100
Cr	52	96.810212	ug/L	96.329		100
Cu	63	98.359567	ug/L	98.755		100
Cu	65	97.494659	ug/L	97.886		100
Fe	54	99.040933	ug/L	98.548		100
Fe	56	100.698057	ug/L	100.197		100
Fe	57	96.67128	ug/L	96.19		100
Ge	72		ug/L		87.499	
Hg	200	1.010469	ug/L	101.047		1
Hg	202	1.015052	ug/L	101.505		1
Ho	165		ug/L		93.704	
In	115		ug/L		91.169	
K	39	976.980134	ug/L	96.923		1000
Mg	24	103.47945	ug/L	103.067		100
Mg	25	100.435989	ug/L	100.036		100
Mn	55	97.904849	ug/L	97.321		100
Na	23	102.946371	ug/L	101.425		100
Ni	60	100.524971	ug/L	100.124		100
Ni	62	99.474575	ug/L	99.078		100
Pb	208	101.602251	ug/L	100.796		100
Sb	121	96.707736	ug/L	96.322		100
Sb	123	97.540149	ug/L	97.152		100
Sc	45		ug/L		89.589	
Se	82	103.097251	ug/L	102.076		100
Tl	205	101.119062	ug/L	101.423		100
V	51	97.232408	ug/L	96.27		100
Zn	64	123.856758	ug/L	123.363		100
Zn	66	124.671854	ug/L	124.175		100
Zn	68	122.740995	ug/L	122.252		100

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 21:34:11
Sample Description: CV-Trace Metals

Concentration Results

Analyte	Mass	Conc.	Units	QC Std % R	Int Std % R	True Value
Ag	107	67.804204	ug/L	67.266		100
Ag	109	67.981978	ug/L	67.442		100
Al	27	101.366747	ug/L	101.164		100
As	75	100.645487	ug/L	99.748		100
Ba	137	100.471142	ug/L	100.171		100
Be	9	101.185297	ug/L	101.287		100
Ca	44	101.677894	ug/L	100.871		100
Cd	111	100.433098	ug/L	100.433		100
Cd	114	102.045449	ug/L	102.045		100
Co	59	99.078128	ug/L	98.979		100
Cr	52	98.876465	ug/L	98.385		100
Cu	63	98.387356	ug/L	98.782		100
Cu	65	98.084864	ug/L	98.479		100
Fe	54	104.337515	ug/L	103.818		100
Fe	56	107.375825	ug/L	106.842		100
Fe	57	100.581864	ug/L	100.081		100
Ge	72		ug/L		90.07	
Hg	200	1.011716	ug/L	101.172		1
Hg	202	0.991225	ug/L	99.122		1
Ho	165		ug/L		95.562	
In	115		ug/L		92.067	
K	39	996.864603	ug/L	98.895		1000
Mg	24	103.715803	ug/L	103.303		100
Mg	25	102.576004	ug/L	102.167		100
Mn	55	98.305367	ug/L	97.719		100
Na	23	105.384256	ug/L	103.827		100
Ni	60	99.454849	ug/L	99.059		100
Ni	62	98.298007	ug/L	97.906		100
Pb	208	101.783664	ug/L	100.976		100
Sb	121	96.514252	ug/L	96.13		100
Sb	123	97.299417	ug/L	96.912		100
Sc	45		ug/L		92.018	
Se	82	102.960173	ug/L	101.941		100
Tl	205	102.519788	ug/L	102.828		100
V	51	98.469259	ug/L	97.494		100
Zn	64	123.40103	ug/L	122.909		100
Zn	66	123.038779	ug/L	122.549		100
Zn	68	122.273236	ug/L	121.786		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Thursday, August 22, 2013 23:05:35
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	68.003482	ug/L	67.464		100
Ag	109	66.179581	ug/L	65.654		100
Al	27	102.583628	ug/L	102.379		100
As	75	101.639361	ug/L	100.733		100
Ba	137	100.627271	ug/L	100.326		100
Be	9	104.362915	ug/L	104.467		100
Ca	44	107.592255	ug/L	106.738		100
Cd	111	101.155908	ug/L	101.156		100
Cd	114	102.562784	ug/L	102.563		100
Co	59	100.616679	ug/L	100.516		100
Cr	52	99.204695	ug/L	98.711		100
Cu	63	101.395534	ug/L	101.803		100
Cu	65	101.45633	ug/L	101.864		100
Fe	54	105.047443	ug/L	104.525		100
Fe	56	116.137623	ug/L	115.56		100
Fe	57	100.419214	ug/L	99.92		100
Ge	72		ug/L		91.854	
Hg	200	1.049951	ug/L	104.995		1
Hg	202	1.022122	ug/L	102.212		1
Ho	165		ug/L		94.357	
In	115		ug/L		93.397	
K	39	1016.46834	ug/L	100.84		1000
Mg	24	103.931365	ug/L	103.517		100
Mg	25	103.163627	ug/L	102.753		100
Mn	55	99.351634	ug/L	98.759		100
Na	23	110.958606	ug/L	109.319		100
Ni	60	102.687461	ug/L	102.278		100
Ni	62	101.63019	ug/L	101.225		100
Pb	208	103.793883	ug/L	102.97		100
Sb	121	99.913319	ug/L	99.515		100
Sb	123	100.29271	ug/L	99.893		100
Sc	45		ug/L		93.024	
Se	82	103.547842	ug/L	102.523		100
Tl	205	103.568137	ug/L	103.88		100
V	51	100.786946	ug/L	99.789		100
Zn	64	126.685635	ug/L	126.181		100
Zn	66	128.337187	ug/L	127.826		100
Zn	68	126.342695	ug/L	125.839		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 00:37:01
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	64.037175	ug/L	63.529		100
Ag	109	68.951265	ug/L	68.404		100
Al	27	102.560648	ug/L	102.356		100
As	75	100.844624	ug/L	99.945		100
Ba	137	101.627175	ug/L	101.323		100
Be	9	104.648095	ug/L	104.753		100
Ca	44	101.466583	ug/L	100.661		100
Cd	111	102.035907	ug/L	102.036		100
Cd	114	102.928967	ug/L	102.929		100
Co	59	100.455342	ug/L	100.355		100
Cr	52	99.690162	ug/L	99.194		100
Cu	63	101.297566	ug/L	101.704		100
Cu	65	101.17126	ug/L	101.578		100
Fe	54	101.2291	ug/L	100.725		100
Fe	56	107.96594	ug/L	107.429		100
Fe	57	99.357732	ug/L	98.863		100
Ge	72		ug/L		92.132	
Hg	200	1.018208	ug/L	101.821		1
Hg	202	1.016246	ug/L	101.625		1
Ho	165		ug/L		94.63	
In	115		ug/L		91.579	
K	39	1005.15101	ug/L	99.717		1000
Mg	24	104.233247	ug/L	103.818		100
Mg	25	104.143409	ug/L	103.728		100
Mn	55	99.08873	ug/L	98.498		100
Na	23	108.658684	ug/L	107.053		100
Ni	60	102.031383	ug/L	101.625		100
Ni	62	101.076665	ug/L	100.674		100
Pb	208	102.921794	ug/L	102.105		100
Sb	121	98.283805	ug/L	97.892		100
Sb	123	99.257177	ug/L	98.862		100
Sc	45		ug/L		91.93	
Se	82	102.647958	ug/L	101.632		100
Tl	205	103.062233	ug/L	103.372		100
V	51	100.193129	ug/L	99.201		100
Zn	64	128.504416	ug/L	127.992		100
Zn	66	127.953398	ug/L	127.444		100
Zn	68	127.236971	ug/L	126.73		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 02:08:27
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	66.138875	ug/L	65.614		100
Ag	109	65.641889	ug/L	65.121		100
Al	27	102.574772	ug/L	102.37		100
As	75	101.973872	ug/L	101.064		100
Ba	137	101.207305	ug/L	100.905		100
Be	9	105.135192	ug/L	105.24		100
Ca	44	106.467333	ug/L	105.622		100
Cd	111	100.872076	ug/L	100.872		100
Cd	114	102.847327	ug/L	102.847		100
Co	59	102.304182	ug/L	102.202		100
Cr	52	101.084237	ug/L	100.581		100
Cu	63	102.179425	ug/L	102.59		100
Cu	65	102.315609	ug/L	102.727		100
Fe	54	106.184717	ug/L	105.656		100
Fe	56	111.208717	ug/L	110.655		100
Fe	57	104.178694	ug/L	103.66		100
Ge	72		ug/L		88.87	
Hg	200	1.017395	ug/L	101.74		1
Hg	202	1.010598	ug/L	101.06		1
Ho	165		ug/L		94.347	
In	115		ug/L		91.197	
K	39	1014.38792	ug/L	100.634		1000
Mg	24	105.281987	ug/L	104.863		100
Mg	25	104.227762	ug/L	103.813		100
Mn	55	101.255495	ug/L	100.652		100
Na	23	110.364948	ug/L	108.734		100
Ni	60	102.938736	ug/L	102.529		100
Ni	62	101.844004	ug/L	101.438		100
Pb	208	101.348242	ug/L	100.544		100
Sb	121	98.728466	ug/L	98.335		100
Sb	123	98.556842	ug/L	98.164		100
Sc	45		ug/L		89.433	
Se	82	103.467412	ug/L	102.443		100
Tl	205	100.662797	ug/L	100.966		100
V	51	101.412909	ug/L	100.409		100
Zn	64	129.241072	ug/L	128.726		100
Zn	66	129.128675	ug/L	128.614		100
Zn	68	126.35529	ug/L	125.852		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 03:39:56
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	63.682888	ug/L	63.177		100
Ag	109	63.503761	ug/L	63		100
Al	27	102.429767	ug/L	102.225		100
As	75	100.434766	ug/L	99.539		100
Ba	137	95.044052	ug/L	94.76		100
Be	9	108.541807	ug/L	108.65		100
Ca	44	105.36572	ug/L	104.529		100
Cd	111	100.987275	ug/L	100.987		100
Cd	114	102.409167	ug/L	102.409		100
Co	59	95.593861	ug/L	95.498		100
Cr	52	94.723416	ug/L	94.252		100
Cu	63	97.711007	ug/L	98.103		100
Cu	65	98.00058	ug/L	98.394		100
Fe	54	96.856834	ug/L	96.375		100
Fe	56	95.218589	ug/L	94.745		100
Fe	57	93.138121	ug/L	92.675		100
Ge	72		ug/L		91.939	
Hg	200	0.992961	ug/L	99.296		1
Hg	202	1.014404	ug/L	101.44		1
Ho	165		ug/L		95.855	
In	115		ug/L		95.28	
K	39	993.364742	ug/L	98.548		1000
Mg	24	105.479867	ug/L	105.06		100
Mg	25	103.66944	ug/L	103.256		100
Mn	55	94.654511	ug/L	94.09		100
Na	23	108.930136	ug/L	107.32		100
Ni	60	97.656866	ug/L	97.268		100
Ni	62	97.315758	ug/L	96.928		100
Pb	208	99.684376	ug/L	98.893		100
Sb	121	99.114271	ug/L	98.719		100
Sb	123	99.070941	ug/L	98.676		100
Sc	45		ug/L		96.532	
Se	82	104.143032	ug/L	103.112		100
Tl	205	100.117574	ug/L	100.419		100
V	51	96.057061	ug/L	95.106		100
Zn	64	123.705321	ug/L	123.212		100
Zn	66	125.521567	ug/L	125.021		100
Zn	68	122.091284	ug/L	121.605		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 05:11:26
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	64.235545	ug/L	63.726		100
Ag	109	63.784405	ug/L	63.278		100
Al	27	102.424037	ug/L	102.22		100
As	75	99.256771	ug/L	98.371		100
Ba	137	97.550877	ug/L	97.259		100
Be	9	106.755427	ug/L	106.862		100
Ca	44	102.313774	ug/L	101.502		100
Cd	111	100.916412	ug/L	100.916		100
Cd	114	102.171193	ug/L	102.171		100
Co	59	95.541493	ug/L	95.446		100
Cr	52	95.45828	ug/L	94.983		100
Cu	63	97.946505	ug/L	98.34		100
Cu	65	99.200802	ug/L	99.599		100
Fe	54	90.736529	ug/L	90.285		100
Fe	56	90.354464	ug/L	89.905		100
Fe	57	93.091632	ug/L	92.628		100
Ge	72		ug/L		96.232	
Hg	200	1.015604	ug/L	101.56		1
Hg	202	1.003453	ug/L	100.345		1
Ho	165		ug/L		95.299	
In	115		ug/L		95.261	
K	39	980.965395	ug/L	97.318		1000
Mg	24	104.223608	ug/L	103.808		100
Mg	25	104.147767	ug/L	103.733		100
Mn	55	94.145189	ug/L	93.584		100
Na	23	106.948951	ug/L	105.368		100
Ni	60	96.585696	ug/L	96.201		100
Ni	62	97.209837	ug/L	96.823		100
Pb	208	100.679	ug/L	99.88		100
Sb	121	97.056391	ug/L	96.67		100
Sb	123	97.225689	ug/L	96.838		100
Sc	45		ug/L		98.739	
Se	82	100.414807	ug/L	99.421		100
Tl	205	100.816443	ug/L	101.12		100
V	51	96.729795	ug/L	95.772		100
Zn	64	125.19332	ug/L	124.695		100
Zn	66	125.665517	ug/L	125.165		100
Zn	68	123.851061	ug/L	123.358		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 06:43:03
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	62.609552	ug/L	62.113		100
Ag	109	63.273475	ug/L	62.771		100
Al	27	100.076917	ug/L	99.877		100
As	75	98.313816	ug/L	97.437		100
Ba	137	97.237102	ug/L	96.946		100
Be	9	102.933374	ug/L	103.036		100
Ca	44	103.011604	ug/L	102.194		100
Cd	111	98.498035	ug/L	98.498		100
Cd	114	101.330036	ug/L	101.33		100
Co	59	94.399723	ug/L	94.305		100
Cr	52	94.047243	ug/L	93.579		100
Cu	63	96.867734	ug/L	97.257		100
Cu	65	97.863828	ug/L	98.257		100
Fe	54	91.29807	ug/L	90.844		100
Fe	56	86.650634	ug/L	86.22		100
Fe	57	88.86027	ug/L	88.418		100
Ge	72		ug/L		96.379	
Hg	200	0.974967	ug/L	97.497		1
Hg	202	0.982039	ug/L	98.204		1
Ho	165		ug/L		98.411	
In	115		ug/L		97.601	
K	39	965.769718	ug/L	95.81		1000
Mg	24	102.952994	ug/L	102.543		100
Mg	25	100.97749	ug/L	100.575		100
Mn	55	92.639351	ug/L	92.087		100
Na	23	103.633364	ug/L	102.102		100
Ni	60	95.480671	ug/L	95.1		100
Ni	62	95.519545	ug/L	95.139		100
Pb	208	98.701666	ug/L	97.918		100
Sb	121	95.220348	ug/L	94.841		100
Sb	123	95.029539	ug/L	94.651		100
Sc	45		ug/L		102.062	
Se	82	100.272139	ug/L	99.279		100
Tl	205	98.809016	ug/L	99.106		100
V	51	93.941421	ug/L	93.011		100
Zn	64	122.211341	ug/L	121.724		100
Zn	66	123.407966	ug/L	122.916		100
Zn	68	120.210816	ug/L	119.732		100

Eastern Analytical, Inc.

Calibration Verification (CV) Summary
EAI SDGs 123529, 123739
Metals: As, Mn only

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 08:14:43
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	58.922382	ug/L	58.455		100
Ag	109	61.920503	ug/L	61.429		100
Al	27	101.392347	ug/L	101.19		100
As	75	99.463509	ug/L	98.576		100
Ba	137	99.822294	ug/L	99.524		100
Be	9	102.974327	ug/L	103.077		100
Ca	44	104.080867	ug/L	103.255		100
Cd	111	99.508453	ug/L	99.508		100
Cd	114	102.535126	ug/L	102.535		100
Co	59	94.220617	ug/L	94.126		100
Cr	52	94.84688	ug/L	94.375		100
Cu	63	97.784891	ug/L	98.178		100
Cu	65	99.018398	ug/L	99.416		100
Fe	54	89.002146	ug/L	88.559		100
Fe	56	80.359932	ug/L	79.96		100
Fe	57	86.344916	ug/L	85.915		100
Ge	72		ug/L		96.745	
Hg	200	0.984435	ug/L	98.443		1
Hg	202	1.025982	ug/L	102.598		1
Ho	165		ug/L		96.613	
In	115		ug/L		95.201	
K	39	967.699225	ug/L	96.002		1000
Mg	24	102.535686	ug/L	102.127		100
Mg	25	102.682921	ug/L	102.274		100
Mn	55	93.062695	ug/L	92.508		100
Na	23	104.278652	ug/L	102.738		100
Ni	60	95.510801	ug/L	95.13		100
Ni	62	96.583155	ug/L	96.198		100
Pb	208	101.792981	ug/L	100.985		100
Sb	121	98.124756	ug/L	97.734		100
Sb	123	98.661107	ug/L	98.268		100
Sc	45		ug/L		101.956	
Se	82	101.066692	ug/L	100.066		100
Tl	205	101.693467	ug/L	101.999		100
V	51	95.340873	ug/L	94.397		100
Zn	64	123.696682	ug/L	123.204		100
Zn	66	124.863008	ug/L	124.366		100
Zn	68	122.198556	ug/L	121.712		100

Sample ID: QC Std 2
Sample Date/Time: Friday, August 23, 2013 10:15:55
Sample Description: CV-Trace Metals

Concentration Results				QC Std	Int Std	True
Analyte	Mass	Conc.	Units	% R	% R	Value
Ag	107	60.295857	ug/L	59.817		100
Ag	109	61.661689	ug/L	61.172		100
Al	27	105.943549	ug/L	105.732		100
As	75	102.007407	ug/L	101.098		100
Ba	137	100.907863	ug/L	100.606		100
Be	9	108.562924	ug/L	108.672		100
Ca	44	106.017709	ug/L	105.176		100
Cd	111	104.05592	ug/L	104.056		100
Cd	114	104.861732	ug/L	104.862		100
Co	59	97.256944	ug/L	97.16		100
Cr	52	95.789317	ug/L	95.313		100
Cu	63	99.417535	ug/L	99.817		100
Cu	65	100.57804	ug/L	100.982		100
Fe	54	100.31444	ug/L	99.815		100
Fe	56	85.602145	ug/L	85.176		100
Fe	57	91.544742	ug/L	91.089		100
Ge	72		ug/L		94.285	
Hg	200	1.0408	ug/L	104.08		1
Hg	202	1.035454	ug/L	103.545		1
Ho	165		ug/L		94.292	
In	115		ug/L		92.899	
K	39	980.081629	ug/L	97.23		1000
Mg	24	109.07166	ug/L	108.637		100
Mg	25	107.504158	ug/L	107.076		100
Mn	55	97.582665	ug/L	97.001		100
Na	23	108.549197	ug/L	106.945		100
Ni	60	98.478255	ug/L	98.086		100
Ni	62	98.846844	ug/L	98.453		100
Pb	208	103.214777	ug/L	102.396		100
Sb	121	101.770251	ug/L	101.365		100
Sb	123	102.008994	ug/L	101.603		100
Sc	45		ug/L		98.79	
Se	82	102.826012	ug/L	101.808		100
Tl	205	102.159655	ug/L	102.467		100
V	51	96.286774	ug/L	95.333		100
Zn	64	125.387464	ug/L	124.888		100
Zn	66	128.01618	ug/L	127.506		100
Zn	68	126.149596	ug/L	125.647		100

Sample ID: 123739.02
Sample Date/Time: Friday, August 23, 2013 01:09:37
Autosampler Position: 68
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.02.77904

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21993.249	ug/L	
Be	9	0.009652	7.333	ug/L	0.004
B	10	255.319157	32255.889	ug/L	13.781
B	11	262.654882	174286.061	ug/L	9.198
C	12		691035.853	ug/L	
Na	23	74961.010542	467688566.396	ug/L	1703.453
Mg	24	19389.810832	82922784.842	ug/L	503.013
Mg	25	19431.654548	12066130.240	ug/L	446.118
Al	27	97.966633	691748.978	ug/L	5.066
Si	28		26701234.506	ug/L	
P	31	76.955207	42054.590	ug/L	0.848
S	32		79605550.989	ug/L	
Cl	35		9249054.775	ug/L	
K	39	16623.738497	150696649.463	ug/L	275.878
Ca	44	40744.358800	12448240.239	ug/L	468.825
Sc	45		185233.499	ug/L	
Ti	47	8.049384	6448.019	ug/L	0.243
Ti	48	54.091047	465361.283	ug/L	1.259
V	51	0.157445	28095.648	ug/L	0.053
ClO	51		28868.746	ug/L	
Cr	52	0.141346	9377.485	ug/L	0.005
Cr	53	-0.260385	8519.742	ug/L	0.047
Fe	54	7695.927250	5721313.580	ug/L	72.288
Mn	55	446.191404	6768454.597	ug/L	4.890
Fe	56	7791.911521	98732876.145	ug/L	66.045
Fe	57	8077.652188	2389149.350	ug/L	107.164
Co	59	1.520446	17101.576	ug/L	0.007
Ni	60	9.192382	20599.855	ug/L	0.071
Ni	62	7.663945	2674.087	ug/L	0.148
Cu	63	1.074200	5646.143	ug/L	0.018
Zn	64	-0.515279	8317.480	ug/L	0.089
Cu	65	0.373869	1043.070	ug/L	0.016
Zn	66	-1.007736	4620.220	ug/L	0.034
Zn	68	2.397554	6203.178	ug/L	0.010
Ge	72		127770.567	ug/L	
As	75	68.573467	86329.173	ug/L	0.010
Se	82	4.415390	681.477	ug/L	0.370
ArCl	77		783.042	ug/L	
Br	79		232992.474	ug/L	

Br	81		266793.647	ug/L	
Y	89		365779.146	ug/L	
Mo	95	4.565406	14637.939	ug/L	0.135
Rh	103		327454.545	ug/L	
Ag	107	-0.004021	610.693	ug/L	0.002
Ag	109	-0.006504	583.691	ug/L	0.002
Cd	111	0.004159	100.668	ug/L	0.003
Cd	114	0.012373	279.007	ug/L	0.001
In	115		486342.213	ug/L	
Sb	121	0.267700	2704.763	ug/L	0.015
Sb	123	0.256405	2053.320	ug/L	0.013
Ba	137	131.088904	590852.881	ug/L	2.617
Ba	138	128.646221	3765352.438	ug/L	1.943
Tb	159		752495.650	ug/L	
Ho	165		754374.350	ug/L	
Hg	200	0.017656	62.668	ug/L	0.004
Hg	202	0.010684	63.334	ug/L	0.001
Tl	205	-0.019404	1568.485	ug/L	0.006
Pb	208	0.204118	11718.702	ug/L	0.004
Bi	209		604904.526	ug/L	
Se	77	1.217706	779.041	ug/L	0.251
Se	78	-2.970583	7116.342	ug/L	0.649

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		109.800
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	85.916
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.508
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	91.186
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.03
Sample Date/Time: Friday, August 23, 2013 01:16:09
Autosampler Position: 69
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.03.77905

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21433.249	ug/L	
Be	9	0.008455	6.667	ug/L	0.006
B	10	253.813934	31573.763	ug/L	8.645
B	11	263.657674	172273.988	ug/L	7.291
C	12		678836.362	ug/L	
Na	23	74130.698289	455436586.187	ug/L	1108.160
Mg	24	18963.621973	79857477.271	ug/L	179.849
Mg	25	19062.967630	11655665.374	ug/L	44.411
Al	27	62.625261	438254.719	ug/L	0.864
Si	28		24267286.237	ug/L	
P	31	62.056783	35683.491	ug/L	3.590
S	32		79508431.570	ug/L	
Cl	35		9239503.285	ug/L	
K	39	16376.633340	146199105.948	ug/L	300.508
Ca	44	40670.556493	12236523.552	ug/L	812.881
Sc	45		182409.224	ug/L	
Ti	47	5.747710	4571.862	ug/L	0.166
Ti	48	50.519691	427984.492	ug/L	0.501
V	51	0.128333	27341.037	ug/L	0.096
ClO	51		27633.978	ug/L	
Cr	52	0.048759	8348.949	ug/L	0.008
Cr	53	-0.296424	8349.251	ug/L	0.203
Fe	54	5769.227473	4237835.308	ug/L	143.811
Mn	55	352.770668	5270041.336	ug/L	6.960
Fe	56	5821.701631	73259114.625	ug/L	125.164
Fe	57	5839.759955	1703555.767	ug/L	98.571
Co	59	1.237666	13837.665	ug/L	0.021
Ni	60	8.750487	19312.018	ug/L	0.040
Ni	62	7.447339	2560.386	ug/L	0.221
Cu	63	1.356898	6961.068	ug/L	0.031
Zn	64	-1.311693	6731.800	ug/L	0.130
Cu	65	0.644524	1690.507	ug/L	0.009
Zn	66	-1.907859	3563.401	ug/L	0.023
Zn	68	1.059818	5010.097	ug/L	0.031
Ge	72		124289.253	ug/L	
As	75	44.905334	54926.231	ug/L	0.572
Se	82	4.277910	642.793	ug/L	0.309
ArCl	77		747.705	ug/L	
Br	79		231440.462	ug/L	

Br	81		265758.752	ug/L	
Y	89		366703.454	ug/L	
Mo	95	4.629228	14432.601	ug/L	0.138
Rh	103		325345.565	ug/L	
Ag	107	-0.017556	478.017	ug/L	0.001
Ag	109	-0.021395	442.349	ug/L	0.004
Cd	111	0.002175	97.001	ug/L	0.002
Cd	114	0.006380	246.006	ug/L	0.001
In	115		494556.380	ug/L	
Sb	121	0.207152	2296.313	ug/L	0.008
Sb	123	0.199723	1756.588	ug/L	0.013
Ba	137	109.367274	501335.403	ug/L	2.090
Ba	138	105.639018	3144549.697	ug/L	2.044
Tb	159		751766.642	ug/L	
Ho	165		758147.905	ug/L	
Hg	200	0.013380	52.334	ug/L	0.001
Hg	202	0.010685	63.668	ug/L	0.002
Tl	205	-0.018959	1593.156	ug/L	0.004
Pb	208	0.196928	11409.283	ug/L	0.007
Bi	209		598738.867	ug/L	
Se	77	1.059854	760.373	ug/L	0.283
Se	78	-3.149985	7045.902	ug/L	0.567

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		108.126
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 83.575
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 84.919
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 91.642
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.03 MS
Sample Date/Time: Friday, August 23, 2013 01:22:41
Autosampler Position: 70
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.03 MS.77906

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		20246.537	ug/L	
Be	9	872.497342	374330.968	ug/L	7.399
B	10	248.493474	29562.646	ug/L	1.680
B	11	256.581603	160342.839	ug/L	2.268
C	12		1204896.401	ug/L	
Na	23	83672.442327	491635119.869	ug/L	615.453
Mg	24	28077.949215	113081002.176	ug/L	169.255
Mg	25	28048.274544	16401041.524	ug/L	64.372
Al	27	9315.008823	61206723.145	ug/L	40.817
Si	28		22769189.584	ug/L	
P	31	8189.190203	3020615.054	ug/L	120.574
S	32		80099241.373	ug/L	
Cl	35		10036922.425	ug/L	
K	39	25358.611822	216295955.321	ug/L	421.654
Ca	44	49545.097279	14256279.175	ug/L	665.286
Sc	45		174445.082	ug/L	
Ti	47	33.845564	25105.201	ug/L	0.818
Ti	48	62.382694	505142.872	ug/L	2.147
V	51	836.044715	9021062.223	ug/L	3.854
ClO	51		9106900.802	ug/L	
Cr	52	780.327749	7148149.886	ug/L	8.680
Cr	53	782.314070	873073.078	ug/L	18.934
Fe	54	14761.552765	10282868.083	ug/L	243.430
Mn	55	1147.878765	16393475.850	ug/L	14.719
Fe	56	14796.559221	174464886.060	ug/L	93.818
Fe	57	15193.419506	4223762.525	ug/L	8.411
Co	59	788.561841	8009855.246	ug/L	7.636
Ni	60	798.610192	1682125.126	ug/L	8.908
Ni	62	774.615113	251060.648	ug/L	10.383
Cu	63	718.320960	3401676.145	ug/L	11.556
Zn	64	946.054569	1665996.194	ug/L	9.373
Cu	65	714.466295	1673893.255	ug/L	6.253
Zn	66	959.630169	1011212.673	ug/L	8.558
Zn	68	947.765205	748198.721	ug/L	12.675
Ge	72		124822.110	ug/L	
As	75	1050.063277	1294266.715	ug/L	5.753
Se	82	994.592702	143255.835	ug/L	5.733
ArCl	77		104504.429	ug/L	
Br	79		206035.177	ug/L	

Br	81		235320.694	ug/L	
Y	89		345879.680	ug/L	
Mo	95	1079.017075	3331379.907	ug/L	9.546
Rh	103		312431.161	ug/L	
Ag	107	531.217493	5407033.898	ug/L	16.453
Ag	109	524.865802	5128672.498	ug/L	5.539
Cd	111	963.723765	2506157.303	ug/L	6.499
Cd	114	966.488353	5861464.597	ug/L	12.288
In	115		476277.773	ug/L	
Sb	121	1107.344665	8007443.369	ug/L	29.798
Sb	123	1099.236330	6198513.482	ug/L	21.835
Ba	137	1088.185434	4803124.332	ug/L	7.098
Ba	138	1078.754388	30918489.911	ug/L	0.621
Tb	159		708876.616	ug/L	
Ho	165		708461.605	ug/L	
Hg	200	1.073819	2522.042	ug/L	0.002
Hg	202	1.063804	3332.978	ug/L	0.037
Tl	205	1003.472187	34207668.604	ug/L	20.027
Pb	208	970.112880	46318335.710	ug/L	18.389
Bi	209		569866.463	ug/L	
Se	77	867.758409	103260.957	ug/L	17.787
Se	78	848.997203	341630.819	ug/L	15.079

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		103.405
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.933
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	81.780
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	85.636
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.03 MSD
Sample Date/Time: Friday, August 23, 2013 01:29:13
Autosampler Position: 71
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.03 MSD.77907

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		20338.739	ug/L	
Be	9	880.971809	373668.825	ug/L	12.518
B	10	251.590723	29590.393	ug/L	1.361
B	11	260.889506	161185.840	ug/L	3.243
C	12		1230591.642	ug/L	
Na	23	85232.914520	495056369.581	ug/L	374.475
Mg	24	28839.006264	114821215.043	ug/L	7.140
Mg	25	28475.359812	16462741.208	ug/L	168.499
Al	27	9474.327308	61546235.768	ug/L	22.891
Si	28		22873612.281	ug/L	
P	31	8349.171365	3043790.168	ug/L	29.022
S	32		79222468.834	ug/L	
Cl	35		10162394.267	ug/L	
K	39	25634.546780	216122304.992	ug/L	35.565
Ca	44	50215.158128	14282159.653	ug/L	173.810
Sc	45		172469.038	ug/L	
Ti	47	32.477140	23828.095	ug/L	0.271
Ti	48	63.161316	506141.157	ug/L	2.752
V	51	866.351065	9241109.179	ug/L	6.391
ClO	51		9373990.719	ug/L	
Cr	52	810.741302	7344337.567	ug/L	8.668
Cr	53	798.498207	881294.426	ug/L	10.899
Fe	54	14982.323529	10321778.275	ug/L	234.987
Mn	55	1170.484645	16531926.202	ug/L	12.994
Fe	56	15034.462018	175265228.658	ug/L	193.480
Fe	57	15340.012957	4216650.405	ug/L	160.491
Co	59	796.192875	7997545.675	ug/L	6.469
Ni	60	794.195633	1654259.187	ug/L	5.469
Ni	62	781.588828	250519.214	ug/L	6.117
Cu	63	735.250853	3443144.088	ug/L	0.340
Zn	64	980.753314	1707192.063	ug/L	13.220
Cu	65	740.390092	1714913.684	ug/L	10.254
Zn	66	986.475575	1027543.922	ug/L	13.467
Zn	68	974.177630	760255.729	ug/L	12.776
Ge	72		125543.771	ug/L	
As	75	1058.219157	1311789.941	ug/L	13.789
Se	82	1002.600615	145240.746	ug/L	10.267
ArCl	77		105052.423	ug/L	
Br	79		207016.654	ug/L	

Br	81		238490.592	ug/L	
Y	89		347332.170	ug/L	
Mo	95	1086.234637	3372939.595	ug/L	10.052
Rh	103		318256.734	ug/L	
Ag	107	510.045514	5191547.668	ug/L	22.073
Ag	109	491.104130	4798461.749	ug/L	34.660
Cd	111	961.989291	2500860.257	ug/L	2.429
Cd	114	963.958362	5844323.203	ug/L	9.590
In	115		476099.668	ug/L	
Sb	121	1122.871193	8115672.442	ug/L	29.855
Sb	123	1134.650194	6395350.943	ug/L	29.899
Ba	137	1113.941882	4914812.111	ug/L	6.371
Ba	138	1103.572549	31619249.934	ug/L	15.879
Tb	159		711952.871	ug/L	
Ho	165		703456.627	ug/L	
Hg	200	1.078662	2515.040	ug/L	0.016
Hg	202	1.062389	3306.301	ug/L	0.012
Tl	205	1014.068405	34327530.726	ug/L	17.119
Pb	208	997.117228	47277122.015	ug/L	12.676
Bi	209		576932.857	ug/L	
Se	77	875.971037	104232.228	ug/L	12.333
Se	78	852.742064	343101.191	ug/L	12.793

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		102.234
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 84.419
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 81.750
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 85.031
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.04
Sample Date/Time: Friday, August 23, 2013 01:55:24
Autosampler Position: 75
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.04.77911

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		21403.840	ug/L	
Be	9	0.019759	11.333	ug/L	0.005
B	10	258.844388	31163.003	ug/L	1.073
B	11	268.341899	169651.076	ug/L	3.048
C	12		660256.482	ug/L	
Na	23	75325.652419	447753587.313	ug/L	1442.540
Mg	24	19253.247637	78445606.454	ug/L	381.039
Mg	25	19131.473852	11317145.803	ug/L	482.829
Al	27	30.874709	213018.015	ug/L	0.725
Si	28		23053659.759	ug/L	
P	31	37.144427	25270.935	ug/L	1.367
S	32		77325942.389	ug/L	
Cl	35		9082772.023	ug/L	
K	39	16623.502068	143608821.878	ug/L	96.919
Ca	44	41042.641768	11948648.168	ug/L	513.198
Sc	45		176553.531	ug/L	
Ti	47	3.929681	3065.214	ug/L	0.168
Ti	48	52.351706	429281.288	ug/L	0.225
V	51	0.085558	25992.382	ug/L	0.007
ClO	51		26666.016	ug/L	
Cr	52	-0.008928	7545.429	ug/L	0.006
Cr	53	-0.126515	8268.509	ug/L	0.109
Fe	54	4601.005649	3280692.554	ug/L	104.901
Mn	55	327.874768	4739210.302	ug/L	5.753
Fe	56	4574.181226	56193850.432	ug/L	88.841
Fe	57	4665.453771	1318565.099	ug/L	108.696
Co	59	1.165166	12637.571	ug/L	0.056
Ni	60	8.839335	18865.746	ug/L	0.432
Ni	62	7.525101	2502.703	ug/L	0.134
Cu	63	1.000558	5026.773	ug/L	0.027
Zn	64	-1.410635	6338.896	ug/L	0.018
Cu	65	0.290502	796.043	ug/L	0.016
Zn	66	-1.964933	3387.332	ug/L	0.058
Zn	68	0.782182	4626.557	ug/L	0.144
Ge	72		121967.897	ug/L	
As	75	30.997643	37130.547	ug/L	0.553
Se	82	4.345368	640.770	ug/L	0.303
ArCl	77		735.370	ug/L	
Br	79		230991.246	ug/L	

Br	81		263609.076	ug/L	
Y	89		358238.601	ug/L	
Mo	95	4.858951	14855.621	ug/L	0.041
Rh	103		320425.539	ug/L	
Ag	107	0.272232	3550.396	ug/L	0.018
Ag	109	0.286896	3579.410	ug/L	0.034
Cd	111	0.005639	106.668	ug/L	0.001
Cd	114	0.008083	257.340	ug/L	0.005
In	115		495903.970	ug/L	
Sb	121	0.466189	4252.371	ug/L	0.017
Sb	123	0.468165	3336.877	ug/L	0.007
Ba	137	98.501974	452746.424	ug/L	1.373
Ba	138	95.316447	2844987.271	ug/L	2.381
Tb	159		740335.681	ug/L	
Ho	165		738623.849	ug/L	
Hg	200	0.012310	48.334	ug/L	0.002
Hg	202	0.009459	58.001	ug/L	0.002
Tl	205	-0.010430	1856.542	ug/L	0.004
Pb	208	0.134235	7991.125	ug/L	0.006
Bi	209		588953.763	ug/L	
Se	77	0.696232	717.369	ug/L	0.000
Se	78	-3.270018	6998.773	ug/L	0.103

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		104.655
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 82.014
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
Rh
| Ag
| Ag
| Cd
| Cd
> In 85.150
| Sb
| Sb
| Ba
| Ba
Tb
> Ho 89.282
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.06
Sample Date/Time: Friday, August 23, 2013 02:28:00
Autosampler Position: 76
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.06.77916

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23513.065	ug/L	
Be	9	0.033267	17.667	ug/L	0.001
B	10	9.267629	1201.425	ug/L	0.489
B	11	9.504432	6475.705	ug/L	0.209
C	12		534536.930	ug/L	
Na	23	8310.871359	50581388.471	ug/L	285.730
Mg	24	3716.575492	15503754.613	ug/L	108.345
Mg	25	3716.758532	2251021.422	ug/L	124.571
Al	27	222.926491	1524630.287	ug/L	8.249
Si	28		22293660.965	ug/L	
P	31	10.837554	15858.740	ug/L	1.385
S	32		80412181.725	ug/L	
Cl	35		7819196.771	ug/L	
K	39	1916.057353	17338940.104	ug/L	65.049
Ca	44	13214.401931	3940886.855	ug/L	459.978
Sc	45		180813.143	ug/L	
Ti	47	14.571853	11280.111	ug/L	0.196
Ti	48	30.896567	259570.348	ug/L	0.531
V	51	0.303194	29034.601	ug/L	0.051
ClO	51		29788.377	ug/L	
Cr	52	0.614351	13626.661	ug/L	0.062
Cr	53	-0.133493	8456.350	ug/L	0.207
Fe	54	1162.705141	889950.571	ug/L	58.569
Mn	55	402.859462	5958325.126	ug/L	18.925
Fe	56	1086.328420	15487650.100	ug/L	56.656
Fe	57	1142.020956	337393.314	ug/L	60.993
Co	59	0.143896	2195.620	ug/L	0.016
Ni	60	5.443685	11911.251	ug/L	0.210
Ni	62	5.025238	1721.847	ug/L	0.264
Cu	63	0.571932	3045.874	ug/L	0.001
Zn	64	5.445561	18930.483	ug/L	0.283
Cu	65	0.525098	1384.453	ug/L	0.020
Zn	66	4.683929	10686.051	ug/L	0.309
Zn	68	4.839187	8036.965	ug/L	0.299
Ge	72		133510.075	ug/L	
As	75	0.682984	681.971	ug/L	0.010
Se	82	0.268148	72.823	ug/L	0.090
ArCl	77		614.027	ug/L	
Br	79		14364.879	ug/L	

Br	81		37151.986	ug/L	
Y	89		379213.597	ug/L	
Mo	95	0.602225	2203.622	ug/L	0.016
Rh	103		357727.459	ug/L	
Ag	107	0.102969	1910.890	ug/L	0.035
Ag	109	0.103770	1867.214	ug/L	0.038
Cd	111	-0.005096	85.001	ug/L	0.003
Cd	114	0.001554	235.672	ug/L	0.004
In	115		541955.632	ug/L	
Sb	121	0.320278	3441.353	ug/L	0.030
Sb	123	0.318161	2680.628	ug/L	0.027
Ba	137	4.808766	24200.745	ug/L	0.239
Ba	138	4.752636	155355.455	ug/L	0.145
Tb	159		779231.046	ug/L	
Ho	165		778763.113	ug/L	
Hg	200	0.023486	79.668	ug/L	0.000
Hg	202	0.017967	90.335	ug/L	0.002
Tl	205	-0.001001	2307.651	ug/L	0.008
Pb	208	0.178360	10743.932	ug/L	0.002
Bi	209		623302.764	ug/L	
Se	77	-0.290330	600.693	ug/L	0.423
Se	78	-2.305672	7377.411	ug/L	0.350

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		107.180
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 89.775
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 93.058
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 94.134
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.07
Sample Date/Time: Friday, August 23, 2013 02:34:32
Autosampler Position: 77
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.07.77917

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24431.496	ug/L	
Be	9	0.087352	43.334	ug/L	0.008
B	10	8.362824	1137.083	ug/L	0.286
B	11	8.938927	6359.954	ug/L	0.277
C	12		536721.116	ug/L	
Na	23	8017.278289	50824979.695	ug/L	88.270
Mg	24	3662.172322	15913595.851	ug/L	6.155
Mg	25	3679.493896	2321497.678	ug/L	12.565
Al	27	460.422134	3272395.933	ug/L	2.518
Si	28		25239599.081	ug/L	
P	31	72.795219	41073.392	ug/L	1.103
S	32		80822241.497	ug/L	
Cl	35		7843292.575	ug/L	
K	39	1745.943470	16501167.711	ug/L	3.875
Ca	44	12636.201556	3926059.498	ug/L	55.918
Sc	45		188223.724	ug/L	
Ti	47	32.758996	26226.058	ug/L	0.322
Ti	48	47.026481	410731.604	ug/L	1.818
V	51	1.965965	49501.232	ug/L	0.175
ClO	51		49160.052	ug/L	
Cr	52	1.290880	20865.069	ug/L	0.073
Cr	53	0.050113	9024.903	ug/L	0.118
Fe	54	5738.726589	4347662.588	ug/L	125.990
Mn	55	1054.883266	16250783.355	ug/L	22.114
Fe	56	5720.901313	74284859.831	ug/L	139.650
Fe	57	5708.403213	1717352.958	ug/L	165.418
Co	59	0.630266	7614.931	ug/L	0.024
Ni	60	26.717402	60717.701	ug/L	0.968
Ni	62	26.084346	9153.698	ug/L	0.769
Cu	63	1.729192	9076.286	ug/L	0.078
Zn	64	13.126360	34203.089	ug/L	0.867
Cu	65	1.684560	4371.428	ug/L	0.039
Zn	66	12.272264	19693.505	ug/L	0.878
Zn	68	12.868356	15162.786	ug/L	0.751
Ge	72		135644.990	ug/L	
As	75	5.478240	7117.579	ug/L	0.002
Se	82	0.167029	57.797	ug/L	0.027
ArCl	77		619.027	ug/L	
Br	79		12450.011	ug/L	

Br	81		35315.194	ug/L	
Y	89		393245.735	ug/L	
Mo	95	0.509994	1930.558	ug/L	0.001
Rh	103		350484.152	ug/L	
Ag	107	0.027768	1036.403	ug/L	0.005
Ag	109	0.026767	1009.399	ug/L	0.000
Cd	111	0.045438	231.672	ug/L	0.003
Cd	114	0.043617	521.020	ug/L	0.001
In	115		536159.156	ug/L	
Sb	121	0.214224	2544.048	ug/L	0.018
Sb	123	0.206860	1945.550	ug/L	0.031
Ba	137	16.552755	82252.244	ug/L	0.690
Ba	138	16.373865	528213.204	ug/L	0.860
Tb	159		770993.282	ug/L	
Ho	165		774989.404	ug/L	
Hg	200	0.055043	159.670	ug/L	0.003
Hg	202	0.043126	175.670	ug/L	0.004
Tl	205	-0.000066	2328.656	ug/L	0.008
Pb	208	0.521982	28626.663	ug/L	0.022
Bi	209		634674.068	ug/L	
Se	77	-0.417173	585.691	ug/L	0.108
Se	78	-2.111359	7453.706	ug/L	0.178

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		111.573
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 91.211
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 92.062
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 93.678
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.08
Sample Date/Time: Friday, August 23, 2013 02:41:04
Autosampler Position: 78
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.08.77918

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24748.333	ug/L	
Be	9	0.037243	20.000	ug/L	0.001
B	10	8.449666	1135.416	ug/L	0.073
B	11	8.937971	6295.909	ug/L	0.176
C	12		548811.343	ug/L	
Na	23	8064.537113	50590166.534	ug/L	196.815
Mg	24	3509.415372	15085375.016	ug/L	117.649
Mg	25	3543.284083	2211884.688	ug/L	81.390
Al	27	121.304516	858932.911	ug/L	2.774
Si	28		22251512.754	ug/L	
P	31	36.738275	26491.199	ug/L	3.685
S	32		79807883.114	ug/L	
Cl	35		7831440.044	ug/L	
K	39	1652.584279	15477128.207	ug/L	43.844
Ca	44	12266.175936	3771675.259	ug/L	124.167
Sc	45		186279.295	ug/L	
Ti	47	8.426644	6779.595	ug/L	0.118
Ti	48	23.847758	206386.375	ug/L	0.416
V	51	0.705492	34559.321	ug/L	0.058
ClO	51		34899.587	ug/L	
Cr	52	0.357136	11538.423	ug/L	0.008
Cr	53	-0.694588	8050.644	ug/L	0.270
Fe	54	2844.589165	2162285.044	ug/L	40.354
Mn	55	570.119343	8693768.908	ug/L	12.179
Fe	56	2788.517362	37103229.462	ug/L	100.733
Fe	57	2832.872436	848584.053	ug/L	70.403
Co	59	0.308223	4046.274	ug/L	0.014
Ni	60	14.286176	32161.109	ug/L	0.385
Ni	62	13.927977	4857.013	ug/L	0.089
Cu	63	0.855257	4571.529	ug/L	0.006
Zn	64	4.791501	18294.579	ug/L	0.095
Cu	65	0.830074	2189.285	ug/L	0.033
Zn	66	4.071696	10326.965	ug/L	0.313
Zn	68	4.551709	8040.968	ug/L	0.314
Ge	72		137427.234	ug/L	
As	75	2.855985	3652.583	ug/L	0.048
Se	82	0.166439	58.805	ug/L	0.146
ArCl	77		626.695	ug/L	
Br	79		11454.020	ug/L	

Br	81		34379.582	ug/L	
Y	89		392940.320	ug/L	
Mo	95	0.450997	1755.520	ug/L	0.002
Rh	103		359345.900	ug/L	
Ag	107	0.012774	873.718	ug/L	0.012
Ag	109	0.007960	810.378	ug/L	0.009
Cd	111	0.010712	132.002	ug/L	0.008
Cd	114	0.013224	317.009	ug/L	0.000
In	115		542306.050	ug/L	
Sb	121	0.129745	1881.547	ug/L	0.008
Sb	123	0.122897	1433.789	ug/L	0.012
Ba	137	8.375403	42160.305	ug/L	0.091
Ba	138	8.312953	271676.363	ug/L	0.154
Tb	159		774834.667	ug/L	
Ho	165		786488.132	ug/L	
Hg	200	0.037210	116.002	ug/L	0.000
Hg	202	0.023876	111.335	ug/L	0.007
Tl	205	-0.006584	2119.269	ug/L	0.005
Pb	208	0.208307	12440.132	ug/L	0.002
Bi	209		656822.280	ug/L	
Se	77	-0.349523	593.692	ug/L	0.036
Se	78	-2.122328	7449.399	ug/L	0.126

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		110.420
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.409
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 93.118
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 95.068
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.09
Sample Date/Time: Friday, August 23, 2013 02:47:37
Autosampler Position: 79
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.09.77919

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23182.856	ug/L	
Be	9	0.020908	11.667	ug/L	0.001
B	10	55.997846	6674.852	ug/L	2.015
B	11	58.588188	36677.989	ug/L	2.832
C	12		806814.429	ug/L	
Na	23	S	S	ug/L	S
Mg	24	3036.698043	12168480.984	ug/L	19.693
Mg	25	3095.574618	1801184.459	ug/L	46.598
Al	27	4.333573	36008.109	ug/L	0.050
Si	28		19070512.652	ug/L	
P	31	32.484473	23145.073	ug/L	1.366
S	32		76308886.244	ug/L	
Cl	35		10567594.508	ug/L	
K	39	5733.533153	48980969.397	ug/L	49.857
Ca	44	5245.514380	1505890.495	ug/L	65.977
Sc	45		173557.102	ug/L	
Ti	47	2.016435	1611.495	ug/L	0.447
Ti	48	6.068003	48950.717	ug/L	0.103
V	51	0.348139	28365.141	ug/L	0.030
ClO	51		28715.922	ug/L	
Cr	52	-0.059432	6958.902	ug/L	0.014
Cr	53	0.889895	9248.796	ug/L	0.096
Fe	54	198.442895	190280.203	ug/L	3.633
Mn	55	54.382663	773714.150	ug/L	0.873
Fe	56	179.361936	4383202.818	ug/L	5.254
Fe	57	208.359314	66582.941	ug/L	2.005
Co	59	0.119505	1864.877	ug/L	0.001
Ni	60	5.604546	11781.080	ug/L	0.004
Ni	62	5.647806	1855.541	ug/L	0.023
Cu	63	2.326242	11190.662	ug/L	0.010
Zn	64	-1.026788	6900.658	ug/L	0.036
Cu	65	0.081350	295.674	ug/L	0.008
Zn	66	-1.407346	3912.548	ug/L	0.041
Zn	68	-0.002344	3936.892	ug/L	0.002
Ge	72		123421.696	ug/L	
As	75	2.914125	3350.757	ug/L	0.018
Se	82	9.441965	1373.157	ug/L	0.165
ArCl	77		826.713	ug/L	
Br	79		508948.942	ug/L	

Br	81		559426.187	ug/L	
Y	89		363811.693	ug/L	
Mo	95	0.197276	802.377	ug/L	0.007
Rh	103		323154.225	ug/L	
Ag	107	-0.002004	626.028	ug/L	0.000
Ag	109	-0.006623	577.357	ug/L	0.002
Cd	111	-0.016273	46.001	ug/L	0.001
Cd	114	-0.008292	149.669	ug/L	0.000
In	115		481985.908	ug/L	
Sb	121	0.081748	1320.443	ug/L	0.008
Sb	123	0.082053	1040.397	ug/L	0.005
Ba	137	38.433790	171729.535	ug/L	0.266
Ba	138	38.334881	1112303.579	ug/L	0.260
Tb	159		736938.091	ug/L	
Ho	165		742044.326	ug/L	
Hg	200	0.020086	67.668	ug/L	0.002
Hg	202	0.014532	74.668	ug/L	0.003
Tl	205	-0.029081	1195.424	ug/L	0.004
Pb	208	0.030261	2829.205	ug/L	0.001
Bi	209		566125.347	ug/L	
Se	77	1.347370	794.376	ug/L	0.044
Se	78	-2.682486	7229.460	ug/L	0.026

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		102.879
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 82.992
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 82.760
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 89.695
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.10
Sample Date/Time: Friday, August 23, 2013 02:54:09
Autosampler Position: 80
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.10.77920

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		23271.081	ug/L	
Be	9	0.014785	9.333	ug/L	0.011
B	10	54.396091	6707.541	ug/L	0.330
B	11	57.212308	37054.137	ug/L	1.765
C	12		813747.366	ug/L	
Na	23	S	S	ug/L	S
Mg	24	2979.371519	12351414.412	ug/L	115.168
Mg	25	3052.133707	1837233.563	ug/L	119.995
Al	27	14.329931	104866.898	ug/L	0.990
Si	28		19524382.335	ug/L	
P	31	34.958378	24886.590	ug/L	3.861
S	32		78278252.254	ug/L	
Cl	35		10812112.643	ug/L	
K	39	5669.470960	50112590.706	ug/L	227.955
Ca	44	5180.047159	1538418.384	ug/L	150.486
Sc	45		179513.879	ug/L	
Ti	47	2.236933	1833.203	ug/L	0.055
Ti	48	6.270832	52316.767	ug/L	0.024
V	51	0.321255	29043.974	ug/L	0.059
ClO	51		29447.587	ug/L	
Cr	52	-0.032969	7447.176	ug/L	0.012
Cr	53	0.757637	9414.300	ug/L	0.131
Fe	54	236.629656	224029.501	ug/L	1.664
Mn	55	52.806364	777045.368	ug/L	0.032
Fe	56	213.696687	4944922.861	ug/L	5.447
Fe	57	249.045526	80482.761	ug/L	1.338
Co	59	0.275445	3559.733	ug/L	0.012
Ni	60	5.561508	12093.831	ug/L	0.120
Ni	62	5.539529	1883.547	ug/L	0.182
Cu	63	2.342428	11656.260	ug/L	0.087
Zn	64	-3.486968	2702.834	ug/L	0.045
Cu	65	0.131011	425.348	ug/L	0.008
Zn	66	-3.794520	1471.801	ug/L	0.028
Zn	68	-2.376411	2153.277	ug/L	0.006
Ge	72		124847.475	ug/L	
As	75	2.932462	3412.408	ug/L	0.092
Se	82	9.509259	1399.131	ug/L	0.214
ArCl	77		841.047	ug/L	
Br	79		516712.940	ug/L	

Br	81		565790.816	ug/L	
Y	89		365712.870	ug/L	
Mo	95	0.177597	750.372	ug/L	0.018
Rh	103		327718.452	ug/L	
Ag	107	-0.013273	515.353	ug/L	0.003
Ag	109	-0.016077	489.351	ug/L	0.001
Cd	111	-0.008084	68.334	ug/L	0.001
Cd	114	-0.001541	193.337	ug/L	0.002
In	115		487361.445	ug/L	
Sb	121	0.059818	1173.087	ug/L	0.005
Sb	123	0.058712	917.377	ug/L	0.002
Ba	137	38.846239	175477.519	ug/L	0.931
Ba	138	38.837122	1139149.976	ug/L	1.180
Tb	159		738702.348	ug/L	
Ho	165		739663.110	ug/L	
Hg	200	0.022541	73.334	ug/L	0.003
Hg	202	0.013433	71.001	ug/L	0.003
Tl	205	-0.029905	1164.087	ug/L	0.004
Pb	208	0.159064	9242.958	ug/L	0.001
Bi	209		563760.679	ug/L	
Se	77	1.719451	838.380	ug/L	0.219
Se	78	-2.831483	7170.958	ug/L	0.328

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		106.410
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	83.950
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	83.683
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	89.408
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.11
Sample Date/Time: Friday, August 23, 2013 03:00:41
Autosampler Position: 81
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.11.77921

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		22797.893	ug/L	
Be	9	0.048997	24.334	ug/L	0.004
B	10	55.441048	6798.609	ug/L	0.321
B	11	58.515159	37682.329	ug/L	0.672
C	12		837263.194	ug/L	
Na	23	S	S	ug/L	S
Mg	24	3110.520896	12824102.370	ug/L	63.701
Mg	25	3178.869311	1902809.647	ug/L	5.816
Al	27	78.757436	537548.975	ug/L	1.741
Si	28		19755330.331	ug/L	
P	31	38.485167	26069.931	ug/L	0.186
S	32		75680307.778	ug/L	
Cl	35		11037050.225	ug/L	
K	39	5717.094078	50248616.796	ug/L	50.144
Ca	44	5282.813152	1560180.540	ug/L	16.300
Sc	45		178555.197	ug/L	
Ti	47	5.065730	3960.569	ug/L	0.035
Ti	48	9.516974	78960.800	ug/L	0.175
V	51	0.504805	30910.474	ug/L	0.081
ClO	51		31085.756	ug/L	
Cr	52	0.111814	8763.174	ug/L	0.005
Cr	53	0.981011	9619.186	ug/L	0.255
Fe	54	362.287910	311996.668	ug/L	2.336
Mn	55	58.069317	849833.565	ug/L	0.126
Fe	56	328.609341	6286517.557	ug/L	1.823
Fe	57	369.646788	114288.607	ug/L	3.730
Co	59	1.161363	12750.730	ug/L	0.009
Ni	60	5.681505	12285.085	ug/L	0.115
Ni	62	5.692673	1923.556	ug/L	0.216
Cu	63	2.716111	13402.673	ug/L	0.005
Zn	64	5.853090	19436.735	ug/L	0.052
Cu	65	0.492431	1289.771	ug/L	0.017
Zn	66	5.845833	11806.780	ug/L	0.102
Zn	68	6.890816	9591.820	ug/L	0.024
Ge	72		124693.345	ug/L	
As	75	3.192036	3727.450	ug/L	0.057
Se	82	10.080359	1479.453	ug/L	0.142
ArCl	77		811.378	ug/L	
Br	79		528487.957	ug/L	

Br	81		579848.838	ug/L	
Y	89		368612.641	ug/L	
Mo	95	0.189561	786.709	ug/L	0.015
Rh	103		324578.857	ug/L	
Ag	107	-0.018215	461.350	ug/L	0.001
Ag	109	-0.022344	424.014	ug/L	0.001
Cd	111	0.000897	91.668	ug/L	0.005
Cd	114	0.007795	249.673	ug/L	0.002
In	115		484423.725	ug/L	
Sb	121	0.054875	1129.415	ug/L	0.002
Sb	123	0.056934	901.539	ug/L	0.003
Ba	137	40.954876	183922.983	ug/L	0.974
Ba	138	40.591562	1183726.834	ug/L	0.988
Tb	159		735569.945	ug/L	
Ho	165		739826.225	ug/L	
Hg	200	0.015697	56.667	ug/L	0.002
Hg	202	0.012480	68.001	ug/L	0.002
Tl	205	-0.028756	1204.426	ug/L	0.005
Pb	208	0.345741	18553.702	ug/L	0.003
Bi	209		555013.691	ug/L	
Se	77	1.685625	834.380	ug/L	0.171
Se	78	-2.606585	7259.262	ug/L	0.481

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		105.842
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

Fe
Co
Ni
Ni
Cu
Zn
Cu
Zn
Zn
> Ge 83.847
As
Se
ArCl
Br
Br
Y
Mo
Rh
Ag
Ag
Cd
Cd
> In 83.179
Sb
Sb
Ba
Ba
Tb
> Ho 89.427
Hg
Hg
Tl
Pb
Bi
Se
Se

Sample ID: 123739.17
Sample Date/Time: Friday, August 23, 2013 03:07:13
Autosampler Position: 82
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.17.77922

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25809.941	ug/L	
Be	9	0.032884	18.334	ug/L	0.005
B	10	6.004552	837.380	ug/L	0.071
B	11	6.480350	4725.275	ug/L	0.219
C	12		585526.761	ug/L	
Na	23	6217.117671	39553947.929	ug/L	204.520
Mg	24	2650.370835	11552693.058	ug/L	109.935
Mg	25	2647.448632	1675551.993	ug/L	113.554
Al	27	350.256073	2498720.374	ug/L	14.138
Si	28		22904305.859	ug/L	
P	31	16.825362	18951.627	ug/L	2.100
S	32		81140577.372	ug/L	
Cl	35		8158144.407	ug/L	
K	39	1675.712751	15907319.764	ug/L	61.848
Ca	44	4060.075981	1269060.847	ug/L	167.251
Sc	45		188990.659	ug/L	
Ti	47	26.157561	21036.522	ug/L	1.133
Ti	48	29.266419	256654.449	ug/L	1.070
V	51	0.597946	33761.915	ug/L	0.125
ClO	51		34373.207	ug/L	
Cr	52	0.287432	11000.914	ug/L	0.062
Cr	53	-0.506228	8395.628	ug/L	0.088
Fe	54	629.582317	530348.534	ug/L	31.161
Mn	55	45.682881	707091.022	ug/L	1.923
Fe	56	575.932992	9763414.051	ug/L	25.978
Fe	57	622.173644	196667.428	ug/L	26.225
Co	59	1.014286	11862.186	ug/L	0.056
Ni	60	1.510364	3480.368	ug/L	0.076
Ni	62	1.713007	637.029	ug/L	0.208
Cu	63	0.954674	5139.504	ug/L	0.064
Zn	64	6.488113	21752.939	ug/L	0.535
Cu	65	0.942909	2508.038	ug/L	0.012
Zn	66	5.648542	12260.719	ug/L	0.441
Zn	68	5.930024	9322.537	ug/L	0.572
Ge	72		138140.606	ug/L	
As	75	0.165914	1.366	ug/L	0.057
Se	82	0.116156	50.783	ug/L	0.019
ArCl	77		596.692	ug/L	
Br	79		18012.692	ug/L	

Br	81		41029.816	ug/L	
Y	89		394747.383	ug/L	
Mo	95	0.169372	803.044	ug/L	0.014
Rh	103		360978.240	ug/L	
Ag	107	-0.012444	581.691	ug/L	0.003
Ag	109	-0.015911	544.689	ug/L	0.003
Cd	111	0.004917	114.002	ug/L	0.001
Cd	114	0.011701	305.675	ug/L	0.004
In	115		540117.314	ug/L	
Sb	121	0.021341	984.063	ug/L	0.002
Sb	123	0.019087	763.446	ug/L	0.002
Ba	137	7.148106	35835.853	ug/L	0.194
Ba	138	7.089526	230743.015	ug/L	0.240
Tb	159		798691.999	ug/L	
Ho	165		796454.696	ug/L	
Hg	200	0.003828	30.000	ug/L	0.001
Hg	202	0.002334	37.667	ug/L	0.000
Tl	205	-0.004620	2217.294	ug/L	0.009
Pb	208	0.455992	25876.453	ug/L	0.018
Bi	209		649046.863	ug/L	
Se	77	-0.126844	620.027	ug/L	0.120
Se	78	-2.125933	7447.984	ug/L	0.191

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		112.027
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 92.889
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 92.742
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 96.272
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.18
Sample Date/Time: Friday, August 23, 2013 03:13:46
Autosampler Position: 83
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.18.77923

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25693.591	ug/L	
Be	9	0.008122	6.667	ug/L	0.004
B	10	5.230289	728.036	ug/L	0.285
B	11	5.563409	4053.945	ug/L	0.275
C	12		604878.389	ug/L	
Na	23	5801.777228	36444319.421	ug/L	208.640
Mg	24	2655.072225	11428685.301	ug/L	108.218
Mg	25	2638.779506	1649325.936	ug/L	78.044
Al	27	76.341284	544284.576	ug/L	1.646
Si	28		23205957.984	ug/L	
P	31	14.119891	17652.258	ug/L	3.312
S	32		79233259.881	ug/L	
Cl	35		8029546.623	ug/L	
K	39	1655.098692	15519636.361	ug/L	44.248
Ca	44	3808.855416	1176024.065	ug/L	113.341
Sc	45		186458.118	ug/L	
Ti	47	7.142300	5774.559	ug/L	0.185
Ti	48	10.482325	90803.080	ug/L	0.157
V	51	0.018365	26676.366	ug/L	0.082
ClO	51		27082.577	ug/L	
Cr	52	-0.077484	7298.889	ug/L	0.004
Cr	53	-0.763928	7980.915	ug/L	0.075
Fe	54	187.511448	196303.441	ug/L	5.393
Mn	55	27.614276	422483.049	ug/L	0.437
Fe	56	149.271177	4334355.378	ug/L	4.959
Fe	57	189.972221	66079.221	ug/L	1.448
Co	59	0.249144	3411.007	ug/L	0.001
Ni	60	0.847685	1945.894	ug/L	0.003
Ni	62	0.925207	357.344	ug/L	0.033
Cu	63	0.419706	2370.333	ug/L	0.011
Zn	64	6.167391	20885.616	ug/L	0.080
Cu	65	0.401397	1119.080	ug/L	0.000
Zn	66	5.616113	12072.465	ug/L	0.012
Zn	68	5.765015	9070.947	ug/L	0.092
Ge	72		131959.303	ug/L	
As	75	0.060591	-136.604	ug/L	0.012
Se	82	0.113872	48.377	ug/L	0.073
ArCl	77		616.027	ug/L	
Br	79		11195.002	ug/L	

Br	81		33978.393	ug/L	
Y	89		374359.053	ug/L	
Mo	95	0.164284	750.372	ug/L	0.008
Rh	103		345067.271	ug/L	
Ag	107	-0.022193	455.683	ug/L	0.002
Ag	109	-0.023616	446.682	ug/L	0.003
Cd	111	-0.007595	75.001	ug/L	0.003
Cd	114	-0.007113	171.003	ug/L	0.002
In	115		525667.219	ug/L	
Sb	121	0.027902	1010.733	ug/L	0.005
Sb	123	0.023535	770.453	ug/L	0.001
Ba	137	5.429765	26526.594	ug/L	0.052
Ba	138	5.383917	170777.130	ug/L	0.064
Tb	159		752239.880	ug/L	
Ho	165		761766.927	ug/L	
Hg	200	0.003600	28.000	ug/L	0.002
Hg	202	0.000037	28.334	ug/L	0.001
Tl	205	-0.010955	1895.884	ug/L	0.004
Pb	208	0.129270	7985.132	ug/L	0.006
Bi	209		634006.321	ug/L	
Se	77	-0.405897	587.025	ug/L	0.578
Se	78	-2.312733	7374.639	ug/L	0.151

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
>	Sc		110.526
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 88.732
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 90.261
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 92.079
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.19
Sample Date/Time: Friday, August 23, 2013 03:20:18
Autosampler Position: 84
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.19.77924

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		26680.499	ug/L	
Be	9	0.012338	8.667	ug/L	0.001
B	10	5.214215	730.370	ug/L	0.003
B	11	5.495341	4032.935	ug/L	0.024
C	12		592952.949	ug/L	
Na	23	5728.007833	36194144.651	ug/L	27.134
Mg	24	2565.332072	11108515.157	ug/L	3.859
Mg	25	2549.395377	1602637.576	ug/L	37.295
Al	27	70.288140	504602.238	ug/L	1.580
Si	28		22407239.302	ug/L	
P	31	11.255331	16636.903	ug/L	1.460
S	32		81175648.274	ug/L	
Cl	35		7723551.627	ug/L	
K	39	1576.954354	14892821.984	ug/L	31.969
Ca	44	3752.613370	1165279.646	ug/L	82.760
Sc	45		187555.808	ug/L	
Ti	47	6.364407	5188.199	ug/L	0.219
Ti	48	9.377158	81653.880	ug/L	0.485
V	51	-0.033641	26231.729	ug/L	0.016
ClO	51		26578.733	ug/L	
Cr	52	-0.094747	7167.343	ug/L	0.033
Cr	53	-0.876184	7896.176	ug/L	0.084
Fe	54	185.045208	195648.402	ug/L	1.426
Mn	55	24.632930	379216.414	ug/L	0.048
Fe	56	149.535946	4362581.746	ug/L	4.224
Fe	57	193.569846	67526.623	ug/L	3.037
Co	59	0.240495	3335.645	ug/L	0.006
Ni	60	0.780401	1804.530	ug/L	0.013
Ni	62	0.815613	320.676	ug/L	0.119
Cu	63	0.403173	2298.980	ug/L	0.017
Zn	64	1.170472	11589.858	ug/L	0.237
Cu	65	0.384407	1082.742	ug/L	0.003
Zn	66	0.623778	6516.734	ug/L	0.020
Zn	68	1.107342	5191.201	ug/L	0.023
Ge	72		134199.244	ug/L	
As	75	0.065432	-129.907	ug/L	0.083
Se	82	-0.041061	24.723	ug/L	0.076
ArCl	77		616.694	ug/L	
Br	79		9207.757	ug/L	

Br	81		30814.448	ug/L	
Y	89		381649.443	ug/L	
Mo	95	0.148112	708.701	ug/L	0.004
Rh	103		357955.776	ug/L	
Ag	107	-0.024702	444.682	ug/L	0.000
Ag	109	-0.025432	443.682	ug/L	0.003
Cd	111	-0.008842	74.334	ug/L	0.001
Cd	114	-0.007385	176.003	ug/L	0.001
In	115		546499.068	ug/L	
Sb	121	0.013517	931.057	ug/L	0.001
Sb	123	0.008356	702.865	ug/L	0.002
Ba	137	4.992035	25357.907	ug/L	0.075
Ba	138	5.008142	165161.873	ug/L	0.101
Tb	159		791297.637	ug/L	
Ho	165		794417.085	ug/L	
Hg	200	0.005060	33.000	ug/L	0.001
Hg	202	0.002486	38.000	ug/L	0.001
Tl	205	-0.012774	1896.219	ug/L	0.010
Pb	208	0.142971	9050.856	ug/L	0.011
Bi	209		639015.429	ug/L	
Se	77	-0.180400	613.694	ug/L	0.076
Se	78	-2.519069	7293.624	ug/L	0.244

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		111.177
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	90.239
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	93.838
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	96.026
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.19 MS
Sample Date/Time: Friday, August 23, 2013 03:26:51
Autosampler Position: 85
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.19 MS.77925

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		24436.818	ug/L	
Be	9	952.672092	427010.678	ug/L	18.670
B	10	5.289460	719.369	ug/L	0.097
B	11	4.887457	3523.719	ug/L	0.046
C	12		1167778.647	ug/L	
Na	23	15324.145414	94078880.809	ug/L	105.454
Mg	24	12139.568676	51080641.849	ug/L	56.784
Mg	25	12054.003511	7364787.625	ug/L	36.009
Al	27	9675.848696	66419390.645	ug/L	99.115
Si	28		20976700.787	ug/L	
P	31	7957.505006	3065963.114	ug/L	131.106
S	32		80401390.678	ug/L	
Cl	35		8784201.139	ug/L	
K	39	10892.504836	97299173.372	ug/L	144.299
Ca	44	12992.935807	3908176.806	ug/L	324.502
Sc	45		182283.593	ug/L	
Ti	47	31.137073	24138.579	ug/L	1.157
Ti	48	23.032296	194914.004	ug/L	0.672
V	51	833.724778	9395933.760	ug/L	27.881
ClO	51		9603772.332	ug/L	
Cr	52	809.250399	7743946.175	ug/L	20.612
Cr	53	793.635762	925362.525	ug/L	17.551
Fe	54	9183.669349	6706339.953	ug/L	99.749
Mn	55	830.303578	12390214.862	ug/L	12.855
Fe	56	9207.201468	114341190.142	ug/L	119.174
Fe	57	9364.977878	2723628.167	ug/L	106.636
Co	59	794.196132	8429569.396	ug/L	6.613
Ni	60	796.201305	1752376.492	ug/L	8.550
Ni	62	790.218188	267592.807	ug/L	15.180
Cu	63	766.197762	3791192.823	ug/L	13.552
Zn	64	1015.202738	1866699.867	ug/L	33.734
Cu	65	779.525445	1907637.814	ug/L	24.708
Zn	66	1040.371952	1144792.531	ug/L	24.489
Zn	68	1027.543102	847215.200	ug/L	16.757
Ge	72		132730.723	ug/L	
As	75	1002.831292	1313688.936	ug/L	28.915
Se	82	1010.054533	154607.838	ug/L	33.747
ArCl	77		110763.289	ug/L	
Br	79		9959.897	ug/L	

Br	81		31114.136	ug/L	
Y	89		370518.940	ug/L	
Mo	95	1042.172979	3420612.103	ug/L	6.697
Rh	103		338394.016	ug/L	
Ag	107	367.716626	3995715.269	ug/L	19.413
Ag	109	380.830133	3971004.776	ug/L	6.031
Cd	111	962.110396	2669344.751	ug/L	2.393
Cd	114	972.538728	6292735.792	ug/L	9.063
In	115		508123.631	ug/L	
Sb	121	1098.932836	8477235.562	ug/L	18.939
Sb	123	1101.484057	6626354.274	ug/L	20.757
Ba	137	986.788869	4645812.835	ug/L	23.308
Ba	138	980.660362	29984706.094	ug/L	7.214
Tb	159		747586.739	ug/L	
Ho	165		748377.308	ug/L	
Hg	200	1.041619	2583.726	ug/L	0.021
Hg	202	1.038818	3438.351	ug/L	0.029
Tl	205	998.955368	35948132.678	ug/L	43.623
Pb	208	989.254973	49856332.267	ug/L	45.611
Bi	209		626205.366	ug/L	
Se	77	930.249832	110651.539	ug/L	16.748
Se	78	901.867179	362389.552	ug/L	12.473

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		108.052
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	89.251
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	87.248
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	90.461
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

Sample ID: 123739.19 MSD
Sample Date/Time: Friday, August 23, 2013 03:59:28
Autosampler Position: 86
Sample Description: post
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.19 MSD.77930

Autotune probe up

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		46151.702	ug/L	
Be	9	0.004982	6.000	ug/L	0.002
B	10	0.143112	94.668	ug/L	0.026
B	11	0.143693	506.686	ug/L	0.027
C	12		568713.555	ug/L	
Na	23	2.888447	38766.479	ug/L	0.358
Mg	24	0.096083	2453.931	ug/L	0.183
Mg	25	-0.003911	313.370	ug/L	0.136
Al	27	-0.542446	5102.051	ug/L	0.242
Si	28		151050.417	ug/L	
P	31	41.218461	32424.291	ug/L	0.306
S	32		33597923.682	ug/L	
Cl	35		2297263.513	ug/L	
K	39	-15.684824	369634.464	ug/L	0.376
Ca	44	-2.157970	5312.083	ug/L	0.378
Sc	45		213654.957	ug/L	
Ti	47	-0.060438	104.335	ug/L	0.040
Ti	48	-0.027638	-221.196	ug/L	0.001
V	51	-1.635544	8769.985	ug/L	0.029
ClO	51		9281.835	ug/L	
Cr	52	-0.320816	5634.927	ug/L	0.020
Cr	53	-5.429919	2825.135	ug/L	0.154
Fe	54	385.785351	393298.961	ug/L	7.875
Mn	55	0.126155	3258.617	ug/L	0.005
Fe	56	-88.224314	1582460.451	ug/L	1.631
Fe	57	-18.256511	4968.522	ug/L	0.840
Co	59	0.095817	2001.574	ug/L	0.010
Ni	60	-0.003102	34.667	ug/L	0.002
Ni	62	-0.010804	38.000	ug/L	0.037
Cu	63	0.002446	296.008	ug/L	0.008
Zn	64	-4.872768	242.782	ug/L	0.019
Cu	65	-0.001491	126.336	ug/L	0.012
Zn	66	-5.056238	131.669	ug/L	0.009
Zn	68	-4.720120	308.342	ug/L	0.016
Ge	72		169329.950	ug/L	
As	75	1.337982	1959.103	ug/L	0.060
Se	82	-0.340284	-26.595	ug/L	0.088
ArCl	77		228.672	ug/L	
Br	79		3747.811	ug/L	

Br	81		18734.152	ug/L	
Y	89		542596.865	ug/L	
Mo	95	0.028017	391.012	ug/L	0.010
Rh	103		444936.283	ug/L	
Ag	107	0.096506	2701.097	ug/L	0.013
Ag	109	0.081655	2389.009	ug/L	0.023
Cd	111	-0.004891	125.002	ug/L	0.001
Cd	114	-0.006902	260.006	ug/L	0.002
In	115		792824.406	ug/L	
Sb	121	0.050801	1800.197	ug/L	0.007
Sb	123	0.036549	1284.468	ug/L	0.003
Ba	137	-0.008522	49.001	ug/L	0.000
Ba	138	-0.009146	238.295	ug/L	0.000
Tb	159		943357.904	ug/L	
Ho	165		952552.337	ug/L	
Hg	200	0.000278	24.667	ug/L	0.000
Hg	202	-0.002227	26.000	ug/L	0.001
Tl	205	0.037209	4576.203	ug/L	0.010
Pb	208	-0.007994	1176.043	ug/L	0.002
Bi	209		691814.843	ug/L	
Se	77	-3.537439	216.671	ug/L	0.120
Se	78	5.731267	10533.015	ug/L	1.287

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
\>	Sc		126.648
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 113.861
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 136.134
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 115.141
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.20
Sample Date/Time: Friday, August 23, 2013 04:25:39
Autosampler Position: 90
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.20.77934

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25284.522	ug/L	
Be	9	0.060479	31.000	ug/L	0.004
B	10	113.917924	14677.988	ug/L	3.516
B	11	118.318404	80060.120	ug/L	4.553
C	12		628034.638	ug/L	
Na	23	56047.203281	355908723.315	ug/L	1014.258
Mg	24	5418.579862	23586685.724	ug/L	94.995
Mg	25	5382.777335	3402033.162	ug/L	102.994
Al	27	10.022750	79517.643	ug/L	0.176
Si	28		23511683.763	ug/L	
P	31	310.096568	135418.602	ug/L	2.351
S	32		81777249.124	ug/L	
Cl	35		8622824.379	ug/L	
K	39	4303.454622	40066919.187	ug/L	21.225
Ca	44	9485.055058	2953744.324	ug/L	163.801
Sc	45		188622.569	ug/L	
Ti	47	2.904074	2458.691	ug/L	0.016
Ti	48	11.829081	103598.753	ug/L	0.303
V	51	-0.158897	24927.079	ug/L	0.004
ClO	51		25175.097	ug/L	
Cr	52	-0.109561	7055.472	ug/L	0.050
Cr	53	-0.632210	8227.471	ug/L	0.145
Fe	54	6100.861375	4625427.841	ug/L	297.323
Mn	55	369.368972	5700436.794	ug/L	14.904
Fe	56	6050.411147	78551175.880	ug/L	270.451
Fe	57	6013.252151	1811677.072	ug/L	277.925
Co	59	0.020282	935.724	ug/L	0.005
Ni	60	2.426870	5558.755	ug/L	0.136
Ni	62	2.123091	781.375	ug/L	0.004
Cu	63	0.708358	3873.864	ug/L	0.021
Zn	64	-0.540564	8412.197	ug/L	0.212
Cu	65	0.160705	521.354	ug/L	0.017
Zn	66	-0.865319	4861.682	ug/L	0.186
Zn	68	3.887352	7575.231	ug/L	0.356
Ge	72		137863.378	ug/L	
As	75	2.339469	2959.470	ug/L	0.027
Se	82	1.766270	313.317	ug/L	0.047
ArCl	77		676.699	ug/L	
Br	79		118809.398	ug/L	

Br	81		147295.271	ug/L	
Y	89		380026.543	ug/L	
Mo	95	1.876633	6621.144	ug/L	0.006
Rh	103		350048.484	ug/L	
Ag	107	0.045589	1189.094	ug/L	0.039
Ag	109	0.019040	889.719	ug/L	0.009
Cd	111	-0.001812	90.001	ug/L	0.003
Cd	114	0.001457	225.338	ug/L	0.004
In	115		517091.530	ug/L	
Sb	121	0.084355	1436.128	ug/L	0.005
Sb	123	0.083435	1123.948	ug/L	0.005
Ba	137	183.845775	880573.146	ug/L	4.758
Ba	138	180.174671	5602421.242	ug/L	7.216
Tb	159		778424.760	ug/L	
Ho	165		775202.542	ug/L	
Hg	200	0.016448	61.334	ug/L	0.001
Hg	202	0.011740	68.668	ug/L	0.001
Tl	205	-0.011400	1910.221	ug/L	0.005
Pb	208	0.059313	4475.479	ug/L	0.004
Bi	209		620009.467	ug/L	
Se	77	0.073287	643.696	ug/L	0.140
Se	78	-1.989710	7501.470	ug/L	0.136

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
| >	Sc		111.809
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.703
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 88.788
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 93.703
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.21
Sample Date/Time: Friday, August 23, 2013 04:32:12
Autosampler Position: 91
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.21.77935

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25366.025	ug/L	
Be	9	0.067876	35.334	ug/L	0.012
B	10	111.955729	14829.576	ug/L	1.419
B	11	116.955719	81363.158	ug/L	0.927
C	12		625926.575	ug/L	
Na	23	54010.197291	352404082.012	ug/L	23.301
Mg	24	5226.860646	23380299.293	ug/L	46.220
Mg	25	5198.763920	3376419.130	ug/L	28.414
Al	27	15.625316	122590.367	ug/L	0.153
Si	28		23615057.796	ug/L	
P	31	361.209922	159957.878	ug/L	1.060
S	32		82195402.181	ug/L	
Cl	35		8498307.687	ug/L	
K	39	4148.927415	39699359.325	ug/L	24.958
Ca	44	9017.186270	2885538.482	ug/L	12.746
Sc	45		193732.517	ug/L	
Ti	47	3.297079	2849.811	ug/L	0.247
Ti	48	11.261284	101296.559	ug/L	0.522
V	51	-0.272992	24234.170	ug/L	0.024
ClO	51		24732.524	ug/L	
Cr	52	-0.163042	6712.530	ug/L	0.012
Cr	53	-1.112892	7864.147	ug/L	0.008
Fe	54	6577.454547	5121737.400	ug/L	90.371
Mn	55	357.286791	5667337.120	ug/L	5.292
Fe	56	6637.574758	88318622.269	ug/L	147.879
Fe	57	6782.756676	2099382.758	ug/L	81.342
Co	59	0.015931	912.722	ug/L	0.003
Ni	60	2.298377	5414.333	ug/L	0.046
Ni	62	1.981586	751.372	ug/L	0.044
Cu	63	0.688875	3876.865	ug/L	0.028
Zn	64	-1.606854	6573.054	ug/L	0.056
Cu	65	0.152640	516.020	ug/L	0.017
Zn	66	-2.009500	3665.776	ug/L	0.027
Zn	68	-0.363995	4078.956	ug/L	0.013
Ge	72		137609.846	ug/L	
As	75	2.452604	3108.801	ug/L	0.033
Se	82	1.854492	326.698	ug/L	0.052
ArCl	77		680.032	ug/L	
Br	79		123962.481	ug/L	

Br	81		152721.701	ug/L	
Y	89		385590.478	ug/L	
Mo	95	1.812527	6392.646	ug/L	0.048
Rh	103		351009.533	ug/L	
Ag	107	0.003159	734.704	ug/L	0.005
Ag	109	-0.001471	680.032	ug/L	0.002
Cd	111	0.002721	104.002	ug/L	0.007
Cd	114	0.002149	231.339	ug/L	0.000
In	115		521612.008	ug/L	
Sb	121	0.071592	1348.447	ug/L	0.000
Sb	123	0.065965	1026.523	ug/L	0.000
Ba	137	50.292094	243143.761	ug/L	0.929
Ba	138	49.158297	1543417.810	ug/L	0.256
Tb	159		784225.555	ug/L	
Ho	165		784834.029	ug/L	
Hg	200	0.017836	65.668	ug/L	0.003
Hg	202	0.013614	76.001	ug/L	0.000
Tl	205	-0.016174	1753.854	ug/L	0.005
Pb	208	0.092568	6289.926	ug/L	0.003
Bi	209		627607.776	ug/L	
Se	77	0.267781	666.698	ug/L	0.271
Se	78	-1.760681	7591.395	ug/L	0.310

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		114.838
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
└ Zn
┌> Ge 92.532
| As
| Se
| ArCl
| Br
| Br
| Y
└ Mo
┌ Rh
| Ag
| Ag
| Cd
| Cd
|> In 89.564
| Sb
| Sb
| Ba
└ Ba
┌ Tb
|> Ho 94.868
| Hg
| Hg
| Tl
| Pb
└ Bi
Se
Se

Sample ID: 123739.22
Sample Date/Time: Friday, August 23, 2013 04:38:44
Autosampler Position: 92
Sample Description:
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.22.77936

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25129.357	ug/L	
Be	9	0.089082	45.001	ug/L	0.028
B	10	191.307504	25063.762	ug/L	1.438
B	11	196.593779	135273.024	ug/L	1.995
C	12		660538.346	ug/L	
Na	23	69949.123213	452243566.089	ug/L	1359.046
Mg	24	8201.552501	36345119.685	ug/L	218.811
Mg	25	8098.230754	5211061.857	ug/L	165.316
Al	27	14.418571	112742.669	ug/L	0.176
Si	28		23991931.369	ug/L	
P	31	368.237258	161358.761	ug/L	4.305
S	32		81083924.378	ug/L	
Cl	35		8917183.925	ug/L	
K	39	5733.499790	54176008.398	ug/L	95.086
Ca	44	15301.736181	4848680.559	ug/L	76.767
Sc	45		191997.176	ug/L	
Ti	47	3.287078	2813.797	ug/L	0.038
Ti	48	19.323108	172355.608	ug/L	0.429
V	51	-0.183262	25090.203	ug/L	0.073
ClO	51		25740.003	ug/L	
Cr	52	-0.119643	7091.153	ug/L	0.000
Cr	53	-0.795187	8180.094	ug/L	0.014
Fe	54	7719.439748	5948040.622	ug/L	19.854
Mn	55	380.302336	5979710.307	ug/L	2.018
Fe	56	7603.025995	99912156.462	ug/L	34.368
Fe	57	7732.363829	2370846.100	ug/L	8.366
Co	59	0.043639	1214.093	ug/L	0.008
Ni	60	3.486143	8120.039	ug/L	0.060
Ni	62	3.101029	1144.083	ug/L	0.039
Cu	63	0.862297	4747.954	ug/L	0.003
Zn	64	-1.375095	6961.885	ug/L	0.040
Cu	65	0.170766	557.689	ug/L	0.005
Zn	66	-1.777935	3900.876	ug/L	0.042
Zn	68	0.408789	4710.601	ug/L	0.003
Ge	72		136267.092	ug/L	
As	75	3.024179	3847.750	ug/L	0.048
Se	82	2.876932	484.455	ug/L	0.276
ArCl	77		717.702	ug/L	
Br	79		168113.315	ug/L	

Br	81		199654.095	ug/L	
Y	89		388158.258	ug/L	
Mo	95	2.278182	7898.844	ug/L	0.040
Rh	103		343372.599	ug/L	
Ag	107	-0.010469	574.024	ug/L	0.002
Ag	109	-0.013252	545.022	ug/L	0.003
Cd	111	-0.001402	90.668	ug/L	0.002
Cd	114	0.002425	230.005	ug/L	0.005
In	115		513664.695	ug/L	
Sb	121	0.052219	1177.755	ug/L	0.010
Sb	123	0.055716	948.799	ug/L	0.003
Ba	137	74.779006	355980.896	ug/L	0.799
Ba	138	72.882833	2253262.507	ug/L	0.075
Tb	159		768025.279	ug/L	
Ho	165		772565.372	ug/L	
Hg	200	0.016520	61.334	ug/L	0.004
Hg	202	0.012887	72.334	ug/L	0.002
Tl	205	-0.020397	1569.818	ug/L	0.003
Pb	208	0.097464	6446.643	ug/L	0.005
Bi	209		617766.832	ug/L	
Se	77	0.383349	680.366	ug/L	0.036
Se	78	-1.911122	7532.327	ug/L	0.278

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
⌜	Li		
|	Be		
|	B		
|	B		
|	C		
|	Na		
|	Mg		
|	Mg		
|	Al		
|	Si		
|	P		
|	S		
|	Cl		
|	K		
|	Ca		
|>	Sc		113.810
|	Ti		
|	Ti		
|	V		
|	ClO		
|	Cr		
|	Cr		
|	Fe		
|	Mn		
|	Fe		

| Fe
| Co
| Ni
| Ni
| Cu
| Zn
| Cu
| Zn
| Zn
> Ge 91.629
| As
| Se
| ArCl
| Br
| Br
| Y
| Mo
| Rh
| Ag
| Ag
| Cd
| Cd
> In 88.200
| Sb
| Sb
| Ba
| Ba
| Tb
> Ho 93.385
| Hg
| Hg
| Tl
| Pb
| Bi
Se
Se

Sample ID: 123739.19 MSD
Sample Date/Time: Friday, August 23, 2013 09:43:08
Autosampler Position: 86
Sample Description: post rerun
Batch ID:
Method File: C:\Elandata\Method\tim.mth
Dataset File: C:\Elandata\Dataset\default\123739.19 MSD.77981

Concentration Results

Analyte	Mass	Conc. Mean	Meas. Intens. Mean	Report Unit	Conc. SD
Li	6		25308.516	ug/L	
Be	9	917.385613	433327.990	ug/L	21.515
B	10	4.904497	707.368	ug/L	0.382
B	11	4.949302	3754.146	ug/L	0.044
C	12		1132229.468	ug/L	
Na	23	15237.963450	98564470.554	ug/L	141.611
Mg	24	12090.571087	53599494.436	ug/L	63.710
Mg	25	11964.968131	7701762.819	ug/L	82.891
Al	27	9542.095841	69015513.489	ug/L	36.456
Si	28		21505106.253	ug/L	
P	31	7579.065737	3077738.577	ug/L	52.902
S	32		71563523.488	ug/L	
Cl	35		8844375.524	ug/L	
K	39	10559.039843	99400342.350	ug/L	2.037
Ca	44	12887.270900	4085386.189	ug/L	57.824
Sc	45		192032.341	ug/L	
Ti	47	27.178687	22227.700	ug/L	0.498
Ti	48	21.815845	194588.126	ug/L	0.322
V	51	801.692714	9524314.809	ug/L	9.277
ClO	51		9757792.275	ug/L	
Cr	52	772.018517	7786404.280	ug/L	14.880
Cr	53	764.738546	940030.469	ug/L	15.475
Fe	54	8921.344588	6866183.306	ug/L	226.303
Mn	55	797.851227	12546087.407	ug/L	24.476
Fe	56	8835.367445	115719739.431	ug/L	189.212
Fe	57	9031.020376	2767869.737	ug/L	188.200
Co	59	765.523410	8561017.474	ug/L	9.056
Ni	60	769.703865	1784968.300	ug/L	2.527
Ni	62	774.008160	276208.157	ug/L	7.081
Cu	63	744.747204	3883246.126	ug/L	3.008
Zn	64	983.049311	1905556.107	ug/L	0.020
Cu	65	769.011581	1983569.048	ug/L	6.631
Zn	66	1023.315285	1186790.903	ug/L	7.471
Zn	68	1007.455591	875390.858	ug/L	3.971
Ge	72		137347.203	ug/L	
As	75	979.832315	1328880.128	ug/L	9.674
Se	82	978.054742	155018.754	ug/L	3.648
ArCl	77		113216.424	ug/L	
Br	79		4709.601	ug/L	

Br	81		25188.432	ug/L	
Y	89		381552.232	ug/L	
Mo	95	1041.410613	3538081.998	ug/L	24.438
Rh	103		342658.982	ug/L	
Ag	107	325.341719	3535213.809	ug/L	31.105
Ag	109	342.664281	3576966.883	ug/L	6.060
Cd	111	976.163412	2711528.935	ug/L	19.711
Cd	114	975.718277	6321250.537	ug/L	17.009
In	115		508827.293	ug/L	
Sb	121	1100.046856	8498579.767	ug/L	23.806
Sb	123	1098.255127	6616711.395	ug/L	22.653
Ba	137	999.025974	4710602.018	ug/L	2.140
Ba	138	1001.012934	30656486.075	ug/L	16.444
Tb	159		768019.102	ug/L	
Ho	165		761588.616	ug/L	
Hg	200	1.038721	2622.738	ug/L	0.054
Hg	202	1.010715	3407.006	ug/L	0.022
Tl	205	985.618324	36128929.681	ug/L	4.977
Pb	208	984.564672	50542568.452	ug/L	27.320
Bi	209		669770.364	ug/L	
Se	77	937.535928	111513.233	ug/L	8.123
Se	78	906.028934	364023.613	ug/L	3.428

QC Calculated Values

	Analyte	QC Std % Recovery	Int Std % Recovery
	Li		
	Be		
	B		
	B		
	C		
	Na		
	Mg		
	Mg		
	Al		
	Si		
	P		
	S		
	Cl		
	K		
	Ca		
>	Sc		113.830
	Ti		
	Ti		
	V		
	ClO		
	Cr		
	Cr		
	Fe		
	Mn		
	Fe		

	Fe	
	Co	
	Ni	
	Ni	
	Cu	
	Zn	
	Cu	
	Zn	
	Zn	
>	Ge	92.355
	As	
	Se	
	ArCl	
	Br	
	Br	
	Y	
	Mo	
	Rh	
	Ag	
	Ag	
	Cd	
	Cd	
>	In	87.369
	Sb	
	Sb	
	Ba	
	Ba	
	Tb	
>	Ho	92.058
	Hg	
	Hg	
	Tl	
	Pb	
	Bi	
	Se	
	Se	

APPENDIX D
Data Validation Reports

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123528	
EVENT:	Groundwater Sampling – August 2013 (Part 1 of 8)	
SAMPLES(1):	2 groundwater samples, 1 field duplicate, 1 trip blank	
TESTS/METHODS(1):	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS test (1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for 1,4-Dioxane by 8260B SIM. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 1 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed	
				1,4-Dioxane	23 Total Metals
123528.01	Trip Blank	7/29/13	Aqueous	X	
123528.02	GW-MW-4-0813	8/13/13	Aqueous	X	X
123528.03	GW-MW-4-Dup-0813	8/13/13	Aqueous	X	X
123528.04	GW-OP-2-0813	8/13/13	Aqueous	X	X

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 1 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
1,4-Dioxane	70-130%	8/15/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes except: Antimony (Sb) 116%

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123528(QAA No. SU01)
SDG NOs. TO FOLLOW: 123529 (SU02), 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

‘ All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	8
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) 10/30/13
(Name and Company) (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123528(QAA No. SU01)
SDG NOs. TO FOLLOW: 123529 (SU02), 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/15/13 (081502)			
Samples:	1-4			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	35			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	4			
Method Blank (Form IV)	4			
GC/MS Instrument Performance Tune (Form V)	14,36			
Internal Standard Area and RT Form VIII)	35			
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	3			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	46-53*			
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	12-13			
Quantitation reports and RIC for all standards	15-30			
Continuing Calibration Summary (Form VII)	37			
Quantitation reports and RIC for all standards	38-39			
4. Raw QC Data				
Tune	14,36			
Method Blank	44-45			
Lab Control Sample/Lab Control Sample Dup	40-43			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	11,34			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123528(QAA No. SU01)
SDG NOs. TO FOLLOW: 123529 (SU02), 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Totals
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13			
Samples:	2-4 4MS/D			
1. Cover Sheet	not reqd			
2. Sample Data Sheet (Form I)	5			
3. Initial/Continuing Calibration Verification (Form IIA)	82-87*			
4. CRQL Standard (From IIB)	not reqd			
5. Blanks (Form III)	6, 74-81*			
6. Interference Check Sample (Form IVB)	66*			
7. Matrix Spike Sample (Form VA) (Parent Sample: 4)	7 with MSD			
8. Post-Digestion Spike Sample (Form VB)	not reqd			
9. Duplicates (Form VI)	7 as MSD			
10. Laboratory Control Sample (Form VII)	6			
11. Serial Dilutions (Form VIII)	not reqd			
12. Method Detection Limits (Annually) (Form IX)	not reqd			
13. Linear Ranges (Quarterly) (Form XI)	not reqd			
14. Preparation Log (Form XII)	not reqd			
15. Analysis Run Log (Form XIII)	not reqd			
16. ICP-MS Tune (Form XIV)	60-61			
17. IPC-MS Internal Stds Relative Intensity (Form XV)	62-65			
18. ICP-MS Raw Data	103-144**			
19. Preparation Logs Raw Data	98-102			
20. Original prep/analysis forms or copies of logbook pgs	57-59			

21. Comments
LCS (lab limits) – Sb 116% (85-115%)
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 67-73

*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123529	
EVENT:	Groundwater Sampling – August 2013 (Part 2 of 8)	
SAMPLES(1):	25 groundwater samples, 1 field duplicate, 1 field blank, 1 equipment rinsate blank, 1 trip blank	
TESTS/METHODS(1):	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8
	Total Metals – Arsenic (As) and Manganese (Mn)	200.8

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS test (1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for 1,4-Dioxane by 8260B SIM. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 2 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Test Performed		
				1,4-Dioxane	23 Total Metals	Total As/Mn
123529.01	GW-OP-5-0813	8/12/13	Aqueous		X	
123529.02	GW-AE-1A-0813	8/12/13	Aqueous		X	
123529.03	GW-AE-1B-0813	8/13/13	Aqueous		X	
123529.04	GW-BP-4-49BGS-0813	8/12/13	Aqueous	X	X	
123529.05	GW-FPC-9A-0813	8/12/13	Aqueous		X	X
123529.06	GW-MW-5D-154BGS-0813	8/13/13	Aqueous	X		X
123529.07	GW-MW-5D-149BGS-0813	8/13/13	Aqueous	X		X
123529.08	GW-MW-5D-144BGS-0813	8/13/13	Aqueous	X		X
123529.09	GW-MW-5S-73BGS-0813	8/13/13	Aqueous	X		X
123529.1	GW-MW-5S-68BGS-0813	8/13/13	Aqueous	X		X
123529.11	GW-MW-5S-63BGS-0813	8/13/13	Aqueous	X		X
123529.12	GW-MW-5S-58BGS-0813	8/13/13	Aqueous	X		X
123529.13	GW-MW-5S-53BGS-0813	8/13/13	Aqueous	X		X
123529.14	GW-FPC-8B-53BGS-0813	8/13/13	Aqueous	X		X
123529.15	GW-FPC-8B-48BGS-0813	8/13/13	Aqueous	X		X
123529.16	GW-FPC-8B-43BGS-0813	8/13/13	Aqueous	X		X
123529.17	GW-GZ-105-48BGS-0813	8/13/13	Aqueous	X		X
123529.18	GW-GZ-105-43BGS-0813	8/13/13	Aqueous	X		X
123529.19	GW-GZ-105-37BGS-0813	8/13/13	Aqueous	X		X
123529.2	GW-MW-8-59BGS-0813	8/13/13	Aqueous	X		X
123529.21	GW-MW-8-54BGS-0813	8/13/13	Aqueous	X		X
123529.22	GW-MW-8-54BGS-DUP-0813	8/13/13	Aqueous	X		X
123529.23	GW-MW-8-49BGS-0813	8/13/13	Aqueous	X		X
123529.24	GW-MW-8-FB-0813	8/13/13	Aqueous	X		X
123529.25	GW-MW-8-EB-0813	8/13/13	Aqueous	X		X
123529.26	Trip Blank	7/29/13	Aqueous	X		
123529.27	GW-MW-11-37BGS-0813	8/14/13	Aqueous	X		X
123529.28	GW-MW-11-42BGS-0813	8/14/13	Aqueous	X		X
123529.29	GW-MW-11-47BGS-0813	8/14/13	Aqueous	X		X

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 2 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
1,4-Dioxane	70-130%	8/16/13	LCS/LCSD	Recoveries within limits for the target analyte
1,4-Dioxane	70-130%	8/17/13	LCS/LCSD	Recoveries within limits for the target analyte
1,4-Dioxane	70-130%	8/18/13	LCS/LCSD	Recoveries within limits for the target analyte
1,4-Dioxane	70-130%	8/19/13	LCS/LCSD	Recoveries within limits for the target analyte
1,4-Dioxane	70-130%	8/19/13	LCS/LCSD	Recoveries within limits for the target analyte
1,4-Dioxane	70-130%	8/20/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes
Total As/Mn	85-115%	8/22/13	LCS	Recoveries within limits for all target analytes

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123529 (QAA No. SU02)
SDG NOs. TO FOLLOW: 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	3*
3. Sample ID Summary	1-2
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	22-24
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1-2
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123529 (QAA No. SU02)
SDG NOs. TO FOLLOW: 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/16/13 (081518)	8/17/13 (081618)	8/18/13 (081802)	8/19/13 (081818)
Samples:	4 NR 6,7,9	10,15-17 NR 11-14	18,19,25 27 NR 20-24,26	28,29
1. QC Summary				
Deuterated Monitoring Compound (Form II)	51	71	101	136
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA	NA	NA	NA
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	9	10	11	12
Method Blank (Form IV)	9	10	11	12
GC/MS Instrument Performance Tune (Form V)	30,54	30,74	30,102	30,139
Internal Standard Area and RT Form VIII)	51	71	101	136
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	4-8	4-8	4-8	4-8
Tentatively Identified Compounds (Form I TIC)	NA	NA	NA	NA
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	64-69*	84-99*	121-131*	149-152*
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	28-29	28-29	28-29	28-29
Quantitation reports and RIC for all standards	31-46	31-46	31-46	31-46
Continuing Calibration Summary (Form VII)	55	75	103	140
Quantitation reports and RIC for all standards	56-57	76-77	104-105	141-142
4. Raw QC Data				
Tune	30,54	30,74	30,102	30,139
Method Blank	62-63	82-83	110-111	147-148
Lab Control Sample/Lab Control Sample Dup	58-61	78-81	106-109	143-146
Matrix Spike/Matrix Spike Dup	NA	NA	NA	NA
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	27,50	27,70	27,100	27,134-5
Internal sample/extract transfer custody records	not incl	not incl	not incl	not incl
Screening records	NA	NA	NA	NA
Other instrument output, including strip charts from screening activities Describe:	NA	NA	NA	NA

6. Comments
LCS/LCSD (lab limits) – P/P
NR – Not Reported (sample rerun at higher dilution)

*Raw spectra not included, quantitation reports include Q values

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123529 (QAA No. SU02)
SDG NOs. TO FOLLOW: 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/19-20/13 (081833)	8/20/13 (082002)		
Samples:	14,24,26 11-13(10x) 20-23(100x)	6-8(20x) 9(10x)		
1. QC Summary				
Deuterated Monitoring Compound (Form II)	155	189		
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA	NA		
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	13	14		
Method Blank (Form IV)	13	14		
GC/MS Instrument Performance Tune (Form V)	30,158	30,190		
Internal Standard Area and RT Form VIII)	155	189		
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	4-8	4-8		
Tentatively Identified Compounds (Form I TIC)	NA	NA		
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	168-187*	200-207*		
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	28-29	28-29		
Quantitation reports and RIC for all standards	31-46	31-46		
Continuing Calibration Summary (Form VII)	159	191		
Quantitation reports and RIC for all standards	160-161	192-193		
4. Raw QC Data				
Tune	30,158	30,190		
Method Blank	166-167	198-199		
Lab Control Sample/Lab Control Sample Dup	162-165	194-197		
Matrix Spike/Matrix Spike Dup	NA	NA		
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	27,153-4	27,188		
Internal sample/extract transfer custody records	not incl	not incl		
Screening records	NA	NA		
Other instrument output, including strip charts from screening activities Describe:	NA	NA		

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123529 (QAA No. SU02)
SDG NOs. TO FOLLOW: 123649 (SU03), 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Total, As/Mn Total
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13	8/22/13		
Samples:	1-5(TAL)	6-25,27-29 10MS/D (As/Mn)		
1. Cover Sheet	not reqd	not reqd		
2. Sample Data Sheet (Form I)	14-15	16-18		
3. Initial/Continuing Calibration Verification (Form IIA)	236-251*	300-305*		
4. CRQL Standard (From IIB)	not reqd	not reqd		
5. Blanks (Form III)	19; 228-235*	21; 294-299*		
6. Interference Check Sample (Form IVB)	220*	286*		
7. Matrix Spike Sample(Form VA)(Parent Sample: 123528-04TAL) (Parent Sample: 123529-10As/Mn)	20 with MSD	21 with MSD		
8. Post-Digestion Spike Sample (Form VB)	not reqd	not reqd		
9. Duplicates (Form VI)	20 as MSD	21 as MSD		
10. Laboratory Control Sample (Form VII)	19	21		
11. Serial Dilutions (Form VIII)	not reqd	not reqd		
12. Method Detection Limits (Annually) (Form IX)	not reqd	not reqd		
13. Linear Ranges (Quarterly) (Form XI)	not reqd	not reqd		
14. Preparation Log (Form XII)	not reqd	not reqd		
15. Analysis Run Log (Form XIII)	not reqd	not reqd		
16. ICP-MS Tune (Form XIV)	214-215	281-282		
17. IPC-MS Internal Stds Relative Intensity (Form XV)	216-219	283-285		
18. ICP-MS Raw Data	257-277**	306-386**		
19. Preparation Logs Raw Data	252-256	252-256		
20. Original prep/analysis forms or copies of logbook pgs	211-213	278-280		

21. Comments
LCS (lab limits) – P
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 221-227, 287-293

*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123649	
EVENT:	Groundwater Sampling – August 2013 (Part 3 of 8)	
SAMPLES(1):	2 groundwater samples, 1 surface water sample, 1 field duplicate, 2 field MS/MSD, 2 trip blanks	
TESTS/METHODS(1):	Volatile Organics (VOCs) – 73 target analytes	8260B
	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8
	Ammonia-N	4500NH3D
	COD	H8000

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS tests (VOCs and 1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

Data Completeness:

- For the trip blanks, the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.
- The sampler did not indicate the sample matrix on the custody record. The laboratory logged in all samples correctly as aqueous.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for each test except Total Metals. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 3 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed				
				VOCs (8260B)	1,4-Dioxane	23 Total Metals	Ammonia-N	COD
123649.01	LC-L-1-0813(1)	8/14/13	Aqueous	X	X	X	X	X
123649.02	LC-L-1-Dup-0813	8/14/13	Aqueous	X	X	X	X	X
123649.03	GW-FPC-8A-0813	8/14/13	Aqueous	X	X	X		
123649.04	Trip Blank - 8260	7/29/13	Aqueous	X				
123649.05	Trip Blank - 1,4 Dioxane	7/29/13	Aqueous		X			
123649.06	GW-AE-3A-0813(1)	8/15/13	Aqueous	X	X	X		

1) Field MS/MSD collected at this location.

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 3 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
VOCs 8260B	40-160% or 70-130%(1)	8/22/13	LCS/LCSD	Recoveries within limits for all target analytes
1,4-Dioxane	70-130%	8/21/13	LCS/LCSD	Recoveries within limits for the target analyte
	70-130%	8/21/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes except: Antimony (Sb) 118%
Ammonia-N	90-110%	8/28/13	LCS/LCSD	Recoveries within limits for the target analyte
COD	85-115%	8/23/13	LCS/LCSD	Recoveries within limits for the target analyte

(1) Laboratory limits are 40-160% for eight of the analytes (i.e., dichlorodifluoromethane, chloromethane, bromomethane, acetone, 2-butanone (MEK), 1,4-dioxane, 4-methyl-2-pentanone (MIBK), and 2-hexanone). These analytes are volatile gases, highly water soluble ketones, or unstable analytes and typically show lower performance.

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123649 (QAA No. SU03)
SDG NOs. TO FOLLOW: 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	20
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123649 (QAA No. SU03)
SDG NOs. TO FOLLOW: 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: VOCs
Method: 8260B

	PAGE NUMBER(S)			
Date/Batch:	8/22/13 (082202)			
Samples:	1-4,6 1MS/D,6MS/D			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	88-89			
Matrix Spike/Matrix Spike Dup(Form III)(Parent Sample:1,6)	7-8,9-10			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	5			
Method Blank (Form IV)	5			
GC/MS Instrument Performance Tune (Form V)	34,90			
Internal Standard Area and RT Form VIII)	88-89			
2. Sample Data				
TCL Results (Form I) (no. analytes: 73)	3-4			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	103-124*			
3. Standards Data				
Initial Calibration Summary (Form VI) (8/19/13 ms5)	24-33			
Quantitation reports and RIC for all standards	35-77			
Continuing Calibration Summary (Form VII)	93-96			
Quantitation reports and RIC for all standards	97-99			
4. Raw QC Data				
Tune	34,90			
Method Blank	91-92			
Lab Control Sample/Lab Control Sample Dup	125-130			
Matrix Spike/Matrix Spike Dup	105-110 119-124			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	23,87			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123649 (QAA No. SU03)
SDG NOs. TO FOLLOW: 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/21/13 (082018)	8/21/13 (082102)		
Samples:	3,5 1,2,6(10x) 1MS/D	6 MS/D		
1. QC Summary				
Deuterated Monitoring Compound (Form II)	156	182		
Matrix Spike/Matrix Spike Dup(Form III)(Parent Sample:1,6)	12	13		
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	12	13		
Method Blank (Form IV)	12	13		
GC/MS Instrument Performance Tune (Form V)	135,157	135,183		
Internal Standard Area and RT Form VIII)	156	182		
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	11	NA		
Tentatively Identified Compounds (Form I TIC)	NA	NA		
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	167-176*	NA		
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	133-134	133-134		
Quantitation reports and RIC for all standards	136-151	136-151		
Continuing Calibration Summary (Form VII)	158	184		
Quantitation reports and RIC for all standards	159-160	185-186		
4. Raw QC Data				
Tune	135,157	135,183		
Method Blank	165-166	191-192		
Lab Control Sample/Lab Control Sample Dup	161-164	187-190		
Matrix Spike/Matrix Spike Dup	177-180	193-196		
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	132,155	132,181		
Internal sample/extract transfer custody records	not incl	not incl		
Screening records	NA	NA		
Other instrument output, including strip charts from screening activities Describe:	NA	NA		

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123649 (QAA No. SU03)
SDG NOs. TO FOLLOW: 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Total
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13			
Samples:	1-3,6 1MS/D 6MS/D			
1. Cover Sheet	not reqd			
2. Sample Data Sheet (Form I)	16			
3. Initial/Continuing Calibration Verification (Form IIA)	226-241*			
4. CRQL Standard (From IIB)	not reqd			
5. Blanks (Form III)	17; 218-225*			
6. Interference Check Sample (Form IVB)	210*			
7. Matrix Spike Sample (Form VA) (Parent Sample:1,6)	18,19 with MSD			
8. Post-Digestion Spike Sample (Form VB)	not reqd			
9. Duplicates (Form VI)	18,19 as MSD			
10. Laboratory Control Sample (Form VII)	17			
11. Serial Dilutions (Form VIII)	not reqd			
12. Method Detection Limits (Annually) (Form IX)	not reqd			
13. Linear Ranges (Quarterly) (Form XI)	not reqd			
14. Preparation Log (Form XII)	not reqd			
15. Analysis Run Log (Form XIII)	not reqd			
16. ICP-MS Tune (Form XIV)	204-205			
17. IPC-MS Internal Stds Relative Intensity (Form XV)	206-209			
18. ICP-MS Raw Data	247-315**			
19. Preparation Logs Raw Data	242-246			
20. Original prep/analysis forms or copies of logbook pgs	201-203			

21. Comments
LCS (lab limits) – Sb 118% (85-115%)
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 211-217

*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123649 (QAA No. SU03)
SDG NOs. TO FOLLOW: 123650 (SU04), 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

WET CHEMISTRY

	PAGE NUMBER(S)			
Parameter/Method:	NH3-N 4500	COD H8000		
Date/Batch:	8/28/13	8/23/13		
Samples:	1-2 1MS/D	1-2 1MS/D		
1. Sample Data Sheet (Form I	14	14		
2. Initial/Continuing Calibration Verification (Form II)	199	198		
3. Blanks (Form III)	15	15		
4. Matrix Spike Sample (Form V) (Parent Sample: 1)	15 w/ MSD	15 w/ MSD		
5. Duplicates (Form VI)	15 as MSD	15 as MSD		
6. Laboratory Control Sample (Form VII)	15 w/LCSD	15 w/LCSD		
7. Raw Data	199	198		
8. Original prep/analysis forms or copies of logbook pgs	199	198		
9. Comments LCS/LCSD (lab limits) – P/P				

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123650	
EVENT:	Groundwater Sampling – August 2013 (Part 4 of 8)	
SAMPLES(1):	4 groundwater samples, 2 trip blanks	
TESTS/METHODS(1):	Volatile Organics (VOCs) – 73 target analytes	8260B
	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS tests (VOCs and 1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

- For the trip blanks, the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.
- The sampler did not indicate the sample matrix on the custody record. The laboratory logged in all samples correctly as aqueous.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for each test except Total Metals. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 4 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed		
				VOCs (8260B)	1,4-Dioxane	23 Total Metals
123650.01	GW-MW-9-0813	8/15/13	Aqueous		X	X
123650.02	GW-MW-10-0813	8/15/13	Aqueous			X
123650.03	GW-AE-2A-0813	8/15/13	Aqueous	X	X	X
123650.04	GW-AE-2B-0813	8/15/13	Aqueous	X	X	X
123650.05	Trip Blank - 8260	7/29/13	Aqueous	X		
123650.06	Trip Blank - 1,4 Dioxane	6/20/13	Aqueous		X	

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 4 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
VOCs 8260B	40-160% or 70-130%(1)	8/23/13	LCS/LCSD	Recoveries within limits for all target analytes
1,4-Dioxane	70-130%	8/21/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes except: Antimony (Sb) 118%

(1) Laboratory limits are 40-160% for eight of the analytes (i.e., dichlorodifluoromethane, chloromethane, bromomethane, acetone, 2-butanone (MEK), 1,4-dioxane, 4-methyl-2-pentanone (MIBK), and 2-hexanone). These analytes are volatile gases, highly water soluble ketones, or unstable analytes and typically show lower performance.

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123650 (QAA No. SU04)
SDG NOs. TO FOLLOW: 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	12
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123650 (QAA No. SU04)
SDG NOs. TO FOLLOW: 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: VOCs
Method: 8260B

	PAGE NUMBER(S)			
Date/Batch:	8/23/13 (082302)			
Samples:	3-5			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	79			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	5-6			
Method Blank (Form IV)	5-6			
GC/MS Instrument Performance Tune (Form V)	26,80			
Internal Standard Area and RT Form VIII)	79			
2. Sample Data				
TCL Results (Form I) (no. analytes: 73)	3-4			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	94-99*			
3. Standards Data				
Initial Calibration Summary (Form VI) (8/19/13 ms5)	16-25			
Quantitation reports and RIC for all standards	27-77			
Continuing Calibration Summary (Form VII)	82-85			
Quantitation reports and RIC for all standards	86-88			
4. Raw QC Data				
Tune	26,80			
Method Blank	92-93			
Lab Control Sample/Lab Control Sample Dup	100-105			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	15,79			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123650 (QAA No. SU04)
SDG NOs. TO FOLLOW: 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/21/13 (082102)			
Samples:	1,3(5x) 4(10X) 6			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	131			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	8			
Method Blank (Form IV)	8			
GC/MS Instrument Performance Tune (Form V)	110,132			
Internal Standard Area and RT Form VIII)	131			
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	7			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	142-149*			
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	108-109			
Quantitation reports and RIC for all standards	111-126			
Continuing Calibration Summary (Form VII)	133			
Quantitation reports and RIC for all standards	134-135			
4. Raw QC Data				
Tune	110,132			
Method Blank	140-141			
Lab Control Sample/Lab Control Sample Dup	136-139			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	107,130			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123650 (QAA No. SU04)
SDG NOs. TO FOLLOW: 123704 (SU05), 123705 (SU06), 123714 (SU07), 123739 (SU08)

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Total
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13			
Samples:	1-4			
1. Cover Sheet	not reqd			
2. Sample Data Sheet (Form I)	9			
3. Initial/Continuing Calibration Verification (Form IIA)	178-193*			
4. CRQL Standard (From IIB)	not reqd			
5. Blanks (Form III)	10; 170-177*			
6. Interference Check Sample (Form IVB)	162*			
7. Matrix Spike Sample (Form VA) (Parent Sample:123649-06)	11 with MSD			
8. Post-Digestion Spike Sample (Form VB)	not reqd			
9. Duplicates (Form VI)	11 as MSD			
10. Laboratory Control Sample (Form VII)	10			
11. Serial Dilutions (Form VIII)	not reqd			
12. Method Detection Limits (Annually) (Form IX)	not reqd			
13. Linear Ranges (Quarterly) (Form XI)	not reqd			
14. Preparation Log (Form XII)	not reqd			
15. Analysis Run Log (Form XIII)	not reqd			
16. ICP-MS Tune (Form XIV)	156-157			
17. IPC-MS Internal Stds Relative Intensity (Form XV)	158-161			
18. ICP-MS Raw Data	199-213**			
19. Preparation Logs Raw Data	194-198			
20. Original prep/analysis forms or copies of logbook pgs	153-155			

21. Comments
LCS (lab limits) – Sb 118% (85-115%)
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 163-169

*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123704	
EVENT:	Groundwater Sampling – August 2013 (Part 5 of 8)	
SAMPLES(1):	3 groundwater samples, 1 field duplicate, 1 field MS/MSD pair, 2 trip blanks	
TESTS/METHODS(1):	Volatile Organics (VOCs) – 73 target analytes	8260B
	1,4-Dioxane	8260B SIM

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the both of these GC/MS tests, the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

- For one trip blank (123704.01), the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.
- The sampler did not enter the second trip blank (123704.06) on the custody record. The laboratory logged in the blank for 1,4-Dioxane analysis as required.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 5 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed	
				VOCs (8260B)	1,4-Dioxane
123704.01	Trip Blank 8260	7/10/13	Aqueous	X	
123704.02	GW-FPC-6A-0813(1)	8/19/13	Aqueous	X	X
123704.03	GW-FPC-6A-Dup-0813	8/19/13	Aqueous	X	X
123704.04	GW-AE-4A-0813	8/19/13	Aqueous	X	
123704.05	GW-AE-4B-0813	8/19/13	Aqueous	X	
123704.06	Trip Blank 1,4 dioxane	8/6/13	Aqueous		X

1) Field MS/MSD collected at this location.

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 5 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
VOCs 8260B	40-160% or 70-130%(1)	8/22/13	LCS/LCSD	Recoveries within limits for all target analytes
1,4-Dioxane	70-130%	8/22/13	LCS/LCSD	Recoveries within limits for the target analyte

(1) Laboratory limits are 40-160% for eight of the analytes (i.e., dichlorodifluoromethane, chloromethane, bromomethane, acetone, 2-butanone (MEK), 1,4-dioxane, 4-methyl-2-pentanone (MIBK), and 2-hexanone). These analytes are volatile gases, highly water soluble ketones, or unstable analytes and typically show lower performance.

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123704 (QAA No. SU05)
SDG NOs. TO FOLLOW: 123705 (SU06), 123714 (SU07), 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	11
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123704 (QAA No. SU05)
SDG NOs. TO FOLLOW: 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: VOCs
Method: 8260B

	PAGE NUMBER(S)			
Date/Batch:	8/22/13 (082205)			
Samples:	1-5 2MS/D			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	78-79			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:02)	7-8			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	5-6			
Method Blank (Form IV)	5-6			
GC/MS Instrument Performance Tune (Form V)	24,80			
Internal Standard Area and RT Form VIII)	78-79			
2. Sample Data				
TCL Results (Form I) (no. analytes: 73)	3-4			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	93-108*			
3. Standards Data				
Initial Calibration Summary (Form VI) (8/19/13 ms5)	14-23			
Quantitation reports and RIC for all standards	25-75			
Continuing Calibration Summary (Form VII)	83-84**			
Quantitation reports and RIC for all standards	87-89			
4. Raw QC Data				
Tune	24,80			
Method Blank	81-82			
Lab Control Sample/Lab Control Sample Dup	109-114			
Matrix Spike/Matrix Spike Dup	97-102			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	13,77			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values
**Repeated on pgs. 85-86

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123704 (QAA No. SU05)
SDG NOs. TO FOLLOW: 123705 (SU06), 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/22/13 (082218)			
Samples:	2,3(10x) 6 2MS/D			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	140			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:02)	10			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	10			
Method Blank (Form IV)	10			
GC/MS Instrument Performance Tune (Form V)	119,141			
Internal Standard Area and RT Form VIII)	140			
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	9			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	151-156*			
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	117-118			
Quantitation reports and RIC for all standards	120-135			
Continuing Calibration Summary (Form VII)	142			
Quantitation reports and RIC for all standards	143-144			
4. Raw QC Data				
Tune	119,141			
Method Blank	149-150			
Lab Control Sample/Lab Control Sample Dup	145-148			
Matrix Spike/Matrix Spike Dup	157-160			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	116,139			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123705	
EVENT:	Groundwater Sampling – August 2013 (Part 6 of 8)	
SAMPLES(1):	1 groundwater sample, 4 drinking water samples, 1 field duplicate, 1 field blank, 1 equipment rinsate blank, 2 trip blanks	
TESTS/METHODS(1):	Volatile Organics (VOCs) – 73 target analytes	8260B
	Volatile Organics (VOCs) – 73 target analytes	524.2
	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS tests (VOCs and 1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

Data Completeness:

- For one trip blank (123705.03), the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.
- The sampler did not enter the second trip blank (123705.1) on the custody record. The laboratory logged in the blank for 1,4-Dioxane analysis as required.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for each test except Total Metals. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 6 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed			
				VOCs (8260B)	VOCs (524.2)	1,4-Dioxane	23 Total Metals
123705.01	DW-EB-0813	8/16/13	Aqueous		X	X	
123705.02	DW-FB-0813	8/16/13	Aqueous		X	X	
123705.03	Trip Blank 524	7/29/13	Aqueous		X		
123705.04	DW-339BHR-0813	8/16/13	Aqueous		X	X	
123705.05	DW-R-3-0813	8/16/13	Aqueous		X	X	
123705.06	DW-R-3-Dup-0813	8/16/13	Aqueous		X	X	
123705.07	DW-346BHR-0813	8/16/13	Aqueous		X	X	
123705.08	DW-415BHR-0813	8/16/13	Aqueous		X	X	
123705.09	GW-MW-6-150BGS-0813	8/16/13	Aqueous	X		X	X
123705.1	Trip Blank 1,4 dioxane	7/29/13	Aqueous			X	

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 6 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
VOCs 8260B	40-160% or 70-130%(1)	8/23/13	LCS/LCSD	Recoveries within limits for all target analytes
VOCs 524.2	70-130%	8/23/12	LCS/LCSD	Recoveries within limits for the target analyte except: Vinyl acetate 45% (LCS) and 43% (LCSD) 2,2-Dichloropropane 60% (LCS) and 57% (LCSD)
1,4-Dioxane	70-130%	8/21/13	LCS/LCSD	Recoveries within limits for the target analyte
	70-130%	8/22/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes except: Antimony (Sb) 118%

(1) Laboratory limits are 40-160% for eight of the analytes (i.e., dichlorodifluoromethane, chloromethane, bromomethane, acetone, 2-butanone (MEK), 1,4-dioxane, 4-methyl-2-pentanone (MIBK), and 2-hexanone). These analytes are volatile gases, highly water soluble ketones, or unstable analytes and typically show lower performance.

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123705 (QAA No. SU06)
SDG NOs. TO FOLLOW: 123714 (SU07), 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	20
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123705 (QAA No. SU06)
SDG NOs. TO FOLLOW: 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: VOCs
Method: 8260B

	PAGE NUMBER(S)			
Date/Batch:	8/23/13 (082302)			
Samples:	9			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	169			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	11-12			
Method Blank (Form IV)	11-12			
GC/MS Instrument Performance Tune (Form V)	115,170			
Internal Standard Area and RT Form VIII)	169			
2. Sample Data				
TCL Results (Form I) (no. analytes: 73)	9-10			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	183-184*			
3. Standards Data				
Initial Calibration Summary (Form VI) (8/19/13 ms5)	105-114			
Quantitation reports and RIC for all standards	116-166			
Continuing Calibration Summary (Form VII)	171-172**			
Quantitation reports and RIC for all standards	175-177			
4. Raw QC Data				
Tune	115,170			
Method Blank	181-182			
Lab Control Sample/Lab Control Sample Dup	185-190			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	104,168			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values
**Repeated on pgs. 173-174

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123705 (QAA No. SU06)
SDG NOs. TO FOLLOW: 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: VOCs
Method: 524.2

	PAGE NUMBER(S)			
Date/Batch:	8/23/13 (082313)			
Samples:	1-8			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	69			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	7-8			
Method Blank (Form IV)	7-8			
GC/MS Instrument Performance Tune (Form V)	28,70			
Internal Standard Area and RT Form VIII)	69			
2. Sample Data				
TCL Results (Form I) (no. analytes: 73)	3-6			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	81-96*			
3. Standards Data				
Initial Calibration Summary (Form VI) (8/19/13 ms5)	24-27			
Quantitation reports and RIC for all standards	29-66			
Continuing Calibration Summary (Form VII)	71-72			
Quantitation reports and RIC for all standards	73-78			
4. Raw QC Data				
Tune	28,70			
Method Blank	79-80			
Lab Control Sample/Lab Control Sample Dup	97-102			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	23,68			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – vinyl acetate 45/43 (70-130%); 2,2-dichloropropane 60/57 (70-130%)

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123705 (QAA No. SU06)
SDG NOs. TO FOLLOW: 123714 (SU07), 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/21/13 (082102)	8/22/13 (082118)		
Samples:	1,2,4,5	6-10		
1. QC Summary				
Deuterated Monitoring Compound (Form II)	216	238		
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA	NA		
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	15	16		
Method Blank (Form IV)	15	16		
GC/MS Instrument Performance Tune (Form V)	195,217	195,239		
Internal Standard Area and RT Form VIII)	216	238		
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	13	13-14		
Tentatively Identified Compounds (Form I TIC)	NA	NA		
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	227-234*	249-258*		
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	193-194	193-194		
Quantitation reports and RIC for all standards	196-211	196-211		
Continuing Calibration Summary (Form VII)	218	240		
Quantitation reports and RIC for all standards	219-220	241-242		
4. Raw QC Data				
Tune	195,217	195,239		
Method Blank	225-226	247-248		
Lab Control Sample/Lab Control Sample Dup	221-224	243-246		
Matrix Spike/Matrix Spike Dup	NA	NA		
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	192,216	192,237		
Internal sample/extract transfer custody records	not incl	not incl		
Screening records	NA	NA		
Other instrument output, including strip charts from screening activities Describe:	NA	NA		

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123705 (QAA No. SU06)
SDG NOs. TO FOLLOW: 123714 (SU07), 123739 (SU08)

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Total
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13			
Samples:	9			
1. Cover Sheet	not reqd			
2. Sample Data Sheet (Form I)	17			
3. Initial/Continuing Calibration Verification (Form IIA)	285-300*			
4. CRQL Standard (From IIB)	not reqd			
5. Blanks (Form III)	18; 277-284*			
6. Interference Check Sample (Form IVB)	269*			
7. Matrix Spike Sample (Form VA) (Parent Sample: 123739.13)	19 with MSD			
8. Post-Digestion Spike Sample (Form VB)	not reqd			
9. Duplicates (Form VI)	19 as MSD			
10. Laboratory Control Sample (Form VII)	18			
11. Serial Dilutions (Form VIII)	not reqd			
12. Method Detection Limits (Annually) (Form IX)	not reqd			
13. Linear Ranges (Quarterly) (Form XI)	not reqd			
14. Preparation Log (Form XII)	not reqd			
15. Analysis Run Log (Form XIII)	not reqd			
16. ICP-MS Tune (Form XIV)	263-264			
17. IPC-MS Internal Stds Relative Intensity (Form XV)	265-268			
18. ICP-MS Raw Data	301-303**			
19. Preparation Logs Raw Data	304-308			
20. Original prep/analysis forms or copies of logbook pgs	260-262			

21. Comments
LCS (lab limits) – Sb 118 (85-115%)
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 270-276

*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123714	
EVENT:	Groundwater Sampling – August 2013 (Part 7 of 8)	
SAMPLES(1):	9 groundwater samples, 1 trip blank	
TESTS/METHODS(1):	1,4-Dioxane	8260B SIM

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For this GC/MS test, the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

- For the trip blank, the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 7 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed
				1,4-Dioxane
123714.01	Trip Blank	8/6/13	Aqueous	X
123714.02	GW-FPC-7B-43BGS-0813	8/19/13	Aqueous	X
123714.03	GW-FPC-7B-38BGS-0813	8/19/13	Aqueous	X
123714.04	GW-FPC-7B-33BGS-0813	8/19/13	Aqueous	X
123714.05	GW-FPC-4B-31BGS-0813	8/19/13	Aqueous	X
123714.06	GW-FPC-4B-26BGS-0813	8/19/13	Aqueous	X
123714.07	GW-FPC-4B-20BGS-0813	8/19/13	Aqueous	X
123714.08	GW-FPC-6B-26BGS-0813	8/19/13	Aqueous	X
123714.09	GW-FPC-6B-21BGS-0813	8/19/13	Aqueous	X
123714.1	GW-FPC-6B-16BGS-0813	8/19/13	Aqueous	X

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 7 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
1,4-Dioxane	70-130%	8/23/13	LCS/LCSD	Recoveries within limits for the target analyte

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123714(QAA No. SU07)
SDG NOs. TO FOLLOW: 123739 (SU08)

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	6
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123714(QAA No. SU07)
SDG NOs. TO FOLLOW: 123739 (SU08)

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/23/13 (082302)			
Samples:	1-7 8-10(10x)			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	32			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	5			
Method Blank (Form IV)	5			
GC/MS Instrument Performance Tune (Form V)	11,33			
Internal Standard Area and RT Form VIII)	32			
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	3-4			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	43-62*			
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	9-10			
Quantitation reports and RIC for all standards	12-27			
Continuing Calibration Summary (Form VII)	34			
Quantitation reports and RIC for all standards	35-36			
4. Raw QC Data				
Tune	11,33			
Method Blank	41-42			
Lab Control Sample/Lab Control Sample Dup	37-40			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	8,31			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

SITE:	Coakley Landfill	
CLIENT:	Summit Environmental Consultants Lewiston, Maine	
LABORATORY:	Eastern Analytical, Inc. (Concord, New Hampshire) Work Order: 123739	
EVENT:	Groundwater Sampling – August 2013 (Part 8 of 8)	
SAMPLES(1):	20 groundwater samples, 1 field duplicate, 1 field MS/MSD, 1 trip blank	
TESTS/METHODS(1):	1,4-Dioxane	8260B SIM
	Total Metals – 23 analytes	200.8
	Total Metals – Arsenic (As) and Manganese (Mn)	200.8

(1) See Table 1 for a complete listing of samples and the tests performed on each.

QAA completed a Tier I validation of the above chemical analysis data in accordance with the USEPA's Region I *Data Validation Functional Guidelines* (Revised December 1996).

The validation was performed using a 'Level C' data package submitted by the laboratory in portable document format (pdf) and Complete SDG File (CSF) Inventory Sheets, which are included as Attachment A.

The validator checked the data package for completeness, assessed the results of Performance Evaluation (PE) samples analyzed with the field samples, and confirmed that all sample tests were performed within the method holding times. The results of the validation are summarized as follows:

Data Completeness: All sample results, QC results, and raw data including all information necessary to perform a Tier III validation as applicable for the analytical methodology is included in the original laboratory data package except as follows:

- For the GC/MS test (1,4-Dioxane), the raw mass spectra are not included in the package. The laboratory does not provide spectra for detects for GC/MS since the quantitation report provides the retention time, the target analyte identification, and the Q value, which gives a good indication of how the sample mass spectrum matches the reference spectrum; and thus, no further action was taken.
- For Total Metals, the raw instrument printouts are included for samples, MS/MSD, and the Linear Range Check (LRC) samples. QC summary forms with the measured results and calculated recoveries are included for the method blanks, LCS, ICS, calibration blanks, and calibration verification standards; and thus, no further action was taken.

Additionally, the validator checked the sample information on the custody record (i.e., the sample ID, date received, date sampled, and sample matrix) against that reported by the laboratory and found no discrepancies, except as follows:

- For the trip blank, the sampler entered the date the blank was packed into the cooler as the date sampled on the custody record. The laboratory entered the date the blank was prepared as the date sampled and logged in the blank using this date.

PE Sample Results: A laboratory control sample (LCS), which is a clean sample matrix spiked with the analytes of interest, was analyzed with every analytical batch (maximum 20 samples of the same matrix). Additionally, a laboratory control sample duplicate (LCSD) was analyzed with every analytical batch for 1,4-Dioxane by 8260B SIM. Results are shown in Table 2.

Holding Time Check: All groundwater samples were prepared/analyzed within the holding times specified in the analytical methods.

QAA Validator: Taryn G. Scholz (Name) 10/30/13 (Date)

Attachments: A Complete SDG File (CSF) Inventory Sheets

TABLE 1
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 8 OF 8)

SAMPLES COLLECTED

Lab ID	Sample ID	Date Sampled	Matrix	Tests Performed		
				1,4-Dioxane	23 Total Metals	Total As/Mn
123739.01	Trip Blank	8/6/13	Aqueous	X		
123739.02	GW-AE-3B-38BGS-0813	8/19/13	Aqueous	X		X
123739.03	GW-AE-3B-34BGS-0813	8/19/13	Aqueous	X		X
123739.04	GW-AE-3B-30BGS-0813	8/19/13	Aqueous	X		X
123739.05	GW-FPC-7A-0813	8/19/13	Aqueous		X	
123739.06	GW-FPC-7B-43BGS-0813	8/19/13	Aqueous			X
123739.07	GW-FPC-7B-38BGS-0813	8/19/13	Aqueous			X
123739.08	GW-FPC-7B-33BGS-0813	8/19/13	Aqueous			X
123739.09	GW-FPC-5B-108BGS-0813	8/19/13	Aqueous	X		X
123739.1	GW-FPC-5B-103BGS-0813	8/19/13	Aqueous	X		X
123739.11	GW-FPC-5B-97BGS-0813	8/19/13	Aqueous	X		X
123739.12	GW-FPC-5A-0813	8/19/13	Aqueous	X	X	
123739.13	GW-FPC-6A-0813(1)	8/19/13	Aqueous		X	
123739.14	GW-FPC-6A-Dup-0813	8/19/13	Aqueous		X	
123739.15	GW-AE-4A-0813	8/19/13	Aqueous		X	
123739.16	GW-AE-4B-0813	8/19/13	Aqueous		X	
123739.17	GW-FPC-4B-31BGS-0813	8/19/13	Aqueous			X
123739.18	GW-FPC-4B-26BGS-0813	8/19/13	Aqueous			X
123739.19	GW-FPC-4B-20BGS-0813	8/19/13	Aqueous			X
123739.2	GW-FPC-6B-26BGS-0813	8/19/13	Aqueous			X
123739.21	GW-FPC-6B-21BGS-0813	8/19/13	Aqueous			X
123739.22	GW-FPC-6B-16BGS-0813	8/19/13	Aqueous			X

1) Field MS/MSD collected at this location.

TABLE 2
COAKLEY LANDFILL
GROUNDWATER SAMPLING - AUGUST 2013
(PART 8 OF 8)

PE SAMPLE RESULTS

Test	Lab Limits	Analysis Date	PE Sample Type	QC Outcome
1,4-Dioxane	70-130%	8/24/13	LCS/LCSD	Recoveries within limits for the target analyte
Total Metals	85-115%	8/21/13	LCS	Recoveries within limits for all target analytes except: Antimony (Sb) 118%
Total As/Mn	85-115%	8/22/13	LCS	Recoveries within limits for all target analytes

ATTACHMENT A
COMPLETE SDG FILE (CSF) INVENTORY SHEETS

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123739(QAA No. SU08)
SDG NOs. TO FOLLOW: None

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

ITEM	PAGE NUMBER(S)
1. Signed Cover Sheet with NELAC Accreditation	cover
2. SDG Case Narrative	2*
3. Sample ID Summary	1
4. Shipping/Receiving Documents	
Airbills (No. of shipments:)	hand delivered
Chain-of-custody records	13,15-16
Sample tags	NA
Sample log-in sheet (Lab, DC-1)	1
Miscellaneous shipping/receiving records Describe:	NA
5. Internal Lab Sample Transfer Records and Tracking Sheets	
Describe:	NA
6. Other Records	
Percent solids determination log	NA
Telephone communication log	NA
Describe:	NA
7. Comments * Narrative comments also included at the end of each QC report (i.e., blank, spike QC Summary) for each test	

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) 10/30/13
(Name and Company) (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123739(QAA No. SU08)
SDG NOs. TO FOLLOW: None

GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
Parameter: 1,4-Dioxane
Method: 8260B SIM

	PAGE NUMBER(S)			
Date/Batch:	8/24/13 (082318)			
Samples:	1 2-4(10x) 9-12(10x)			
1. QC Summary				
Deuterated Monitoring Compound (Form II)	42			
Matrix Spike/Matrix Spike Dup(Form III) (Parent Sample:)	NA			
Lab Control Sample/Lab Control Sample Dup (Form IIIA)	5			
Method Blank (Form IV)	5			
GC/MS Instrument Performance Tune (Form V)	21,45			
Internal Standard Area and RT Form VIII)	42			
2. Sample Data				
TCL Results (Form I) (no. analytes: 1)	3-4			
Tentatively Identified Compounds (Form I TIC)	NA			
Raw Data for each sample: Quantitation reports Reconstructed total ion chromatograms (RIC) Raw spectra/background-subtracted spectra of detects Mass spectra of TICs with three best library matches	55-70*			
3. Standards Data				
Initial Calibration Summary (Form VI) (5/10/13 ms2)	19-20			
Quantitation reports and RIC for all standards	22-37			
Continuing Calibration Summary (Form VII)	46			
Quantitation reports and RIC for all standards	47-48			
4. Raw QC Data				
Tune	21,45			
Method Blank	53-54			
Lab Control Sample/Lab Control Sample Dup	49-52			
Matrix Spike/Matrix Spike Dup	NA			
5. Miscellaneous Data				
Original prep/analysis forms or copies of logbook pgs	18,41			
Internal sample/extract transfer custody records	not incl			
Screening records	NA			
Other instrument output, including strip charts from screening activities Describe:	NA			

6. Comments
LCS/LCSD (lab limits) – P/P

*Raw spectra not included, quantitation reports include Q values

Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

Organics Complete SDG File (CSF) Inventory Sheet

LABORATORY NAME (CITY/STATE): Eastern Analytical, Inc. (Concord, NH)
SDG NO.: 123739(QAA No. SU08)
SDG NOs. TO FOLLOW: None

INDUCTIVELY COUPLED PLASMA/ MASS SPECTROMETRY (ICP-MS)
Parameter: 23 Total, As/Mn Total
Method: 200.8

	PAGE NUMBER(S)			
Date/Batch:	8/21/13	8/22/13		
Samples:	5,12-16 13MS/D (TAL)	2-4,6-11, 17-22 3MS/D (As/Mn)		
1. Cover Sheet	not reqd	not reqd		
2. Sample Data Sheet (Form I)	6-7	8-9		
3. Initial/Continuing Calibration Verification (Form IIA)	97-112*	191-196*		
4. CRQL Standard (From IIB)	not reqd	not reqd		
5. Blanks (Form III)	10; 89-96*	12; 185-190*		
6. Interference Check Sample (Form IVB)	81*	177*		
7. Matrix Spike Sample (Form VA) (Parent Sample: 13 TAL) (Parent Sample: 03 As/Mn)	11 with MSD	12 with MSD		
8. Post-Digestion Spike Sample (Form VB)	not reqd	not reqd		
9. Duplicates (Form VI)	11 as MSD	12 as MSD		
10. Laboratory Control Sample (Form VII)	10	12		
11. Serial Dilutions (Form VIII)	not reqd	not reqd		
12. Method Detection Limits (Annually) (Form IX)	not reqd	not reqd		
13. Linear Ranges (Quarterly) (Form XI)	not reqd	not reqd		
14. Preparation Log (Form XII)	not reqd	not reqd		
15. Analysis Run Log (Form XIII)	not reqd	not reqd		
16. ICP-MS Tune (Form XIV)	75-76	172-173		
17. IPC-MS Internal Stds Relative Intensity (Form XV)	77-80	174-176		
18. ICP-MS Raw Data	118-168**	197-256**		
19. Preparation Logs Raw Data	113-117	113-117		
20. Original prep/analysis forms or copies of logbook pgs	72-74	169-171		

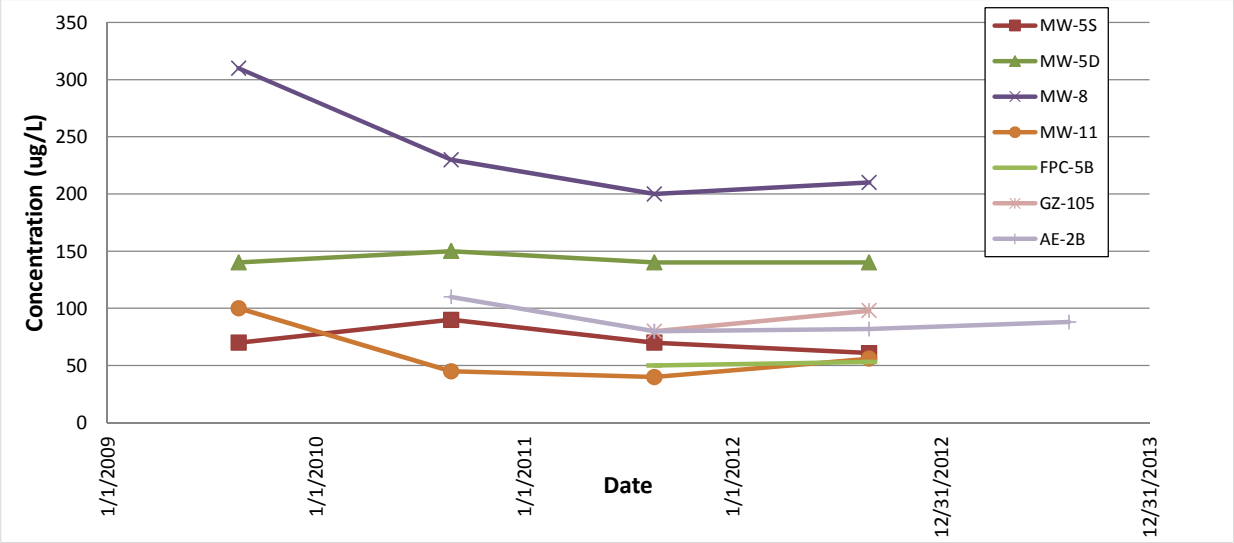
21. Comments
LCS (lab limits) – Sb 118 (85-115%)
Also included: 2-ppm and 5-ppm Linear Range Check (LRC) with raw data pgs. 82-88 and 178-184

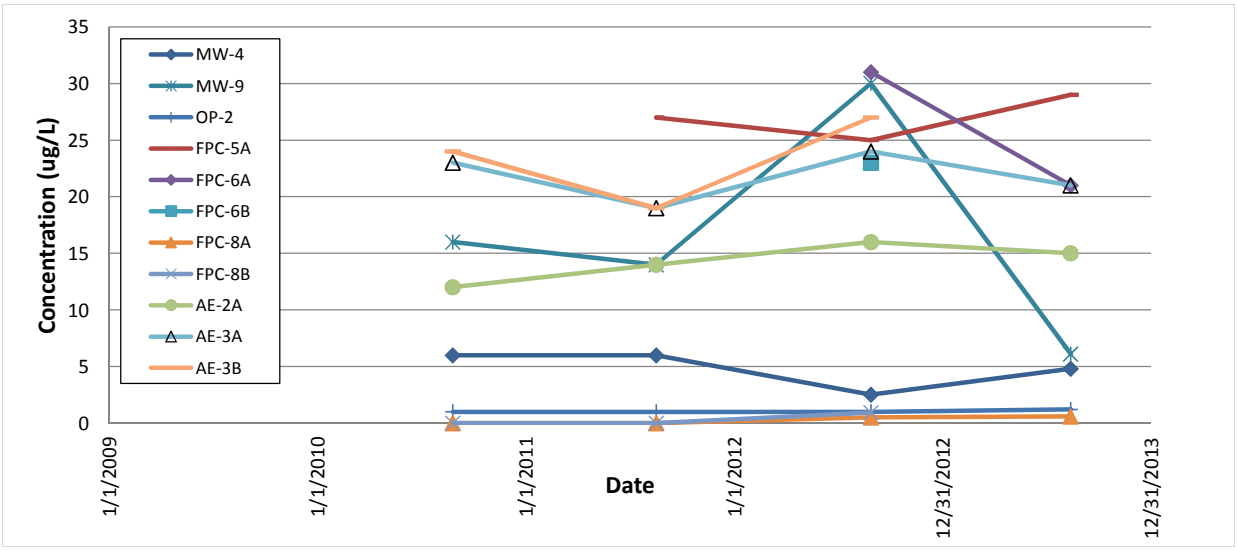
*includes mass and measured result for all calibrated metals
**for samples and MS/MSD only

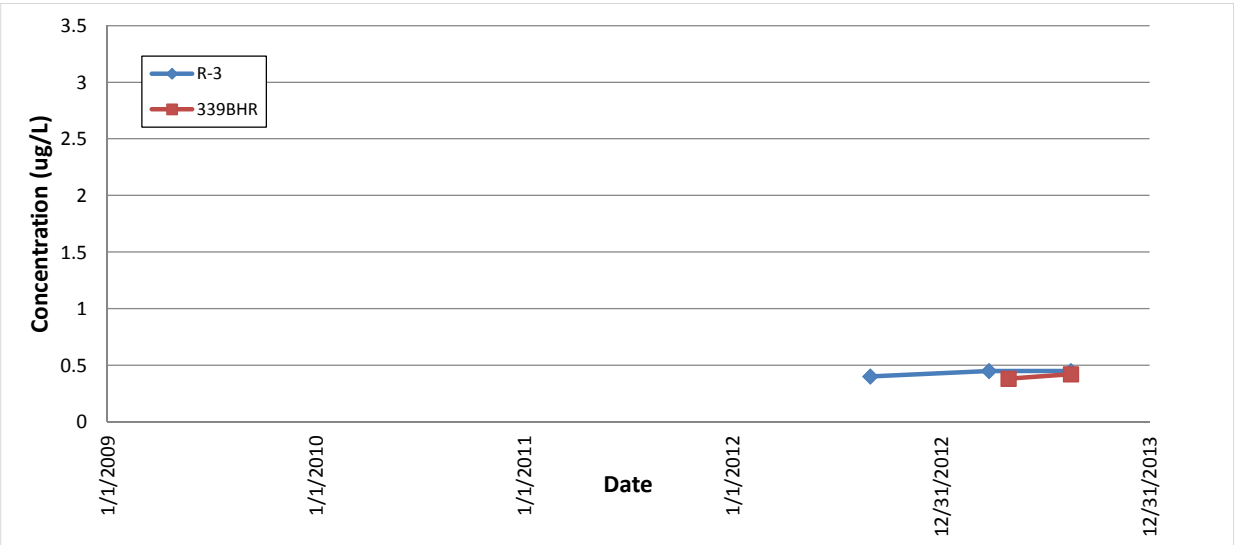
Completed by: Taryn G. Scholz/ Quality Assurance Associates (QAA, LLC) (Name and Company) 10/30/13 (Date)

APPENDIX E
Time Series Plots

Time vs Concentration Graphs - 1,4-Dioxane
2013 Annual Report
Coakley Landfill - North Hampton, New Hampshire

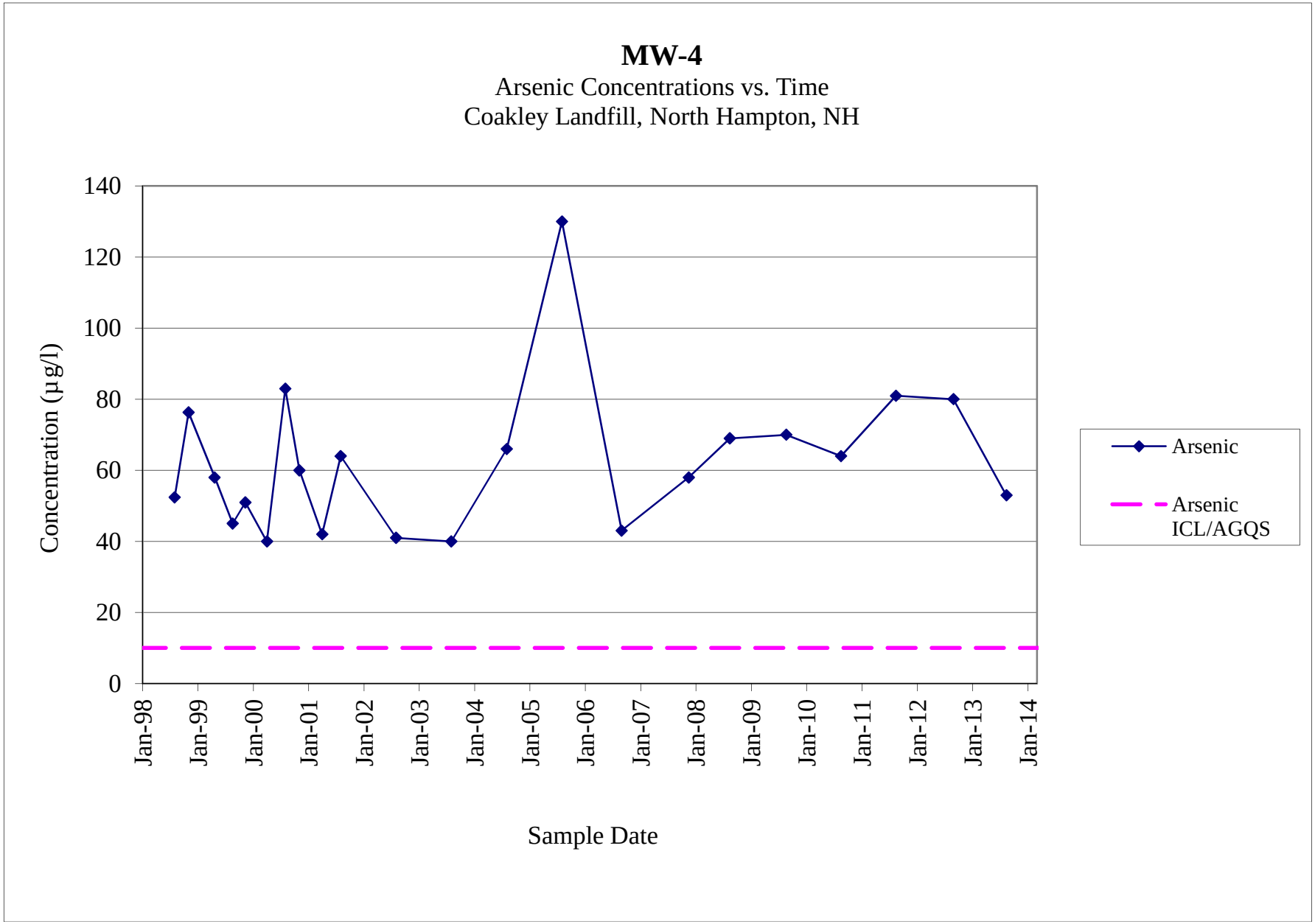


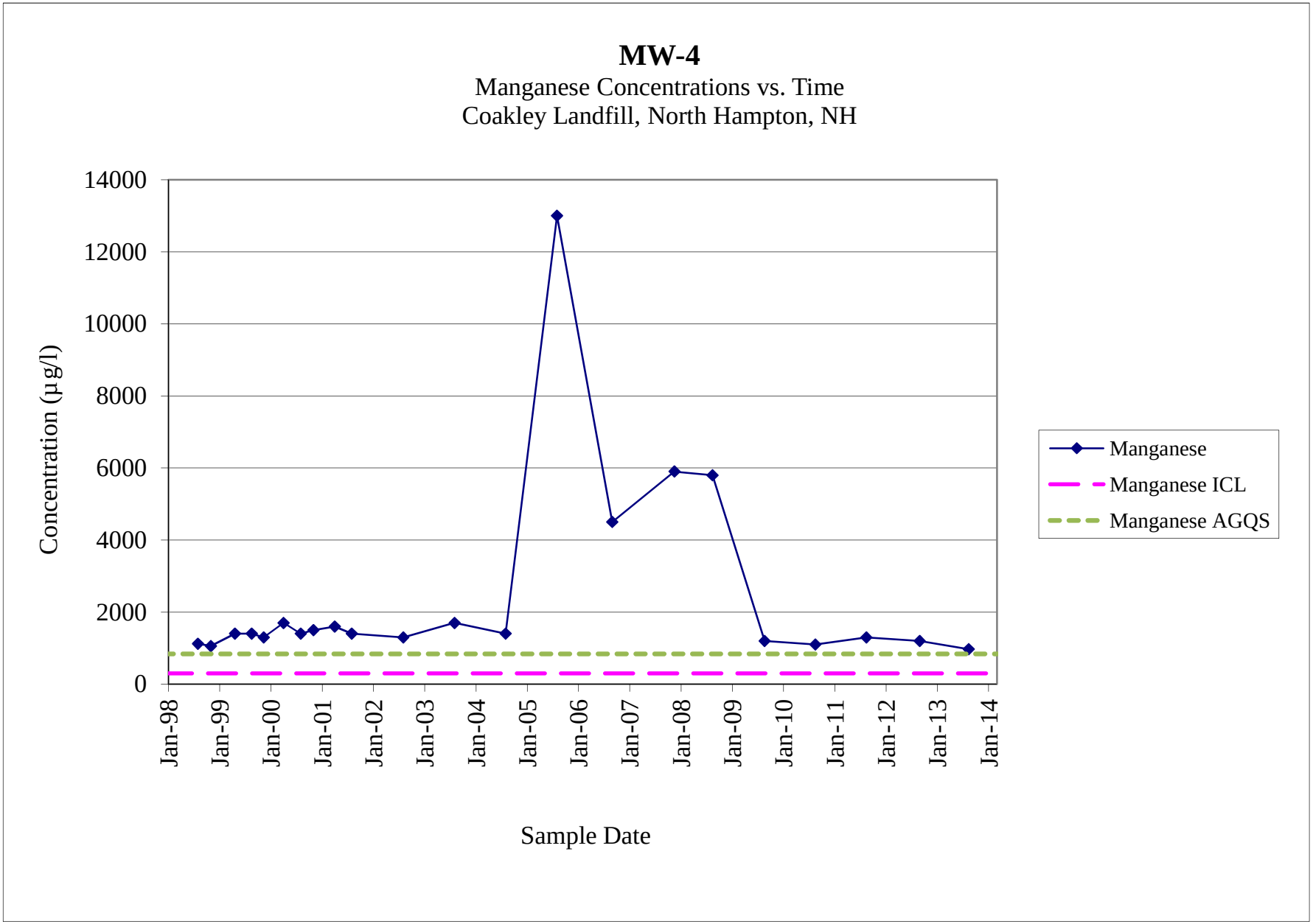


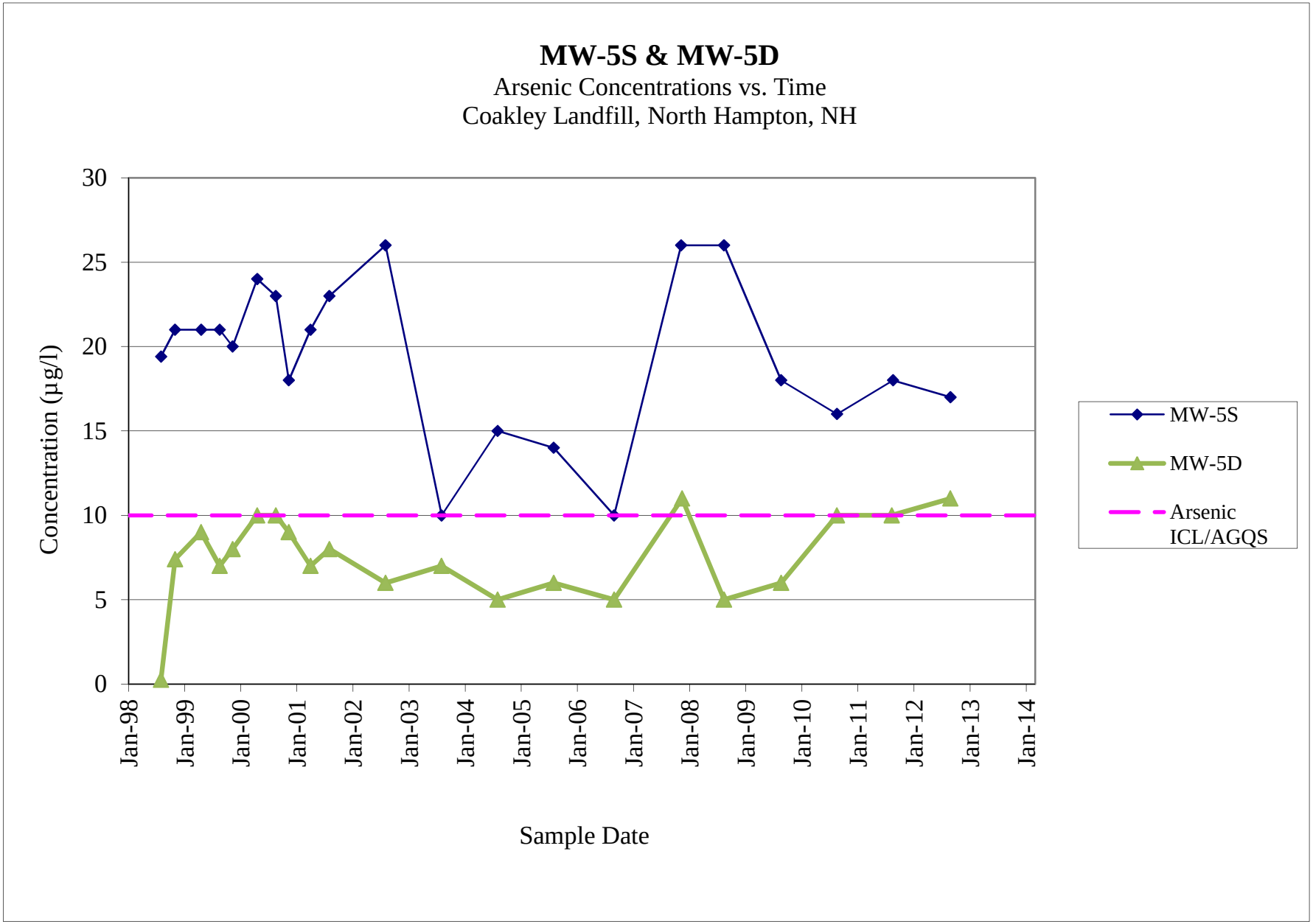


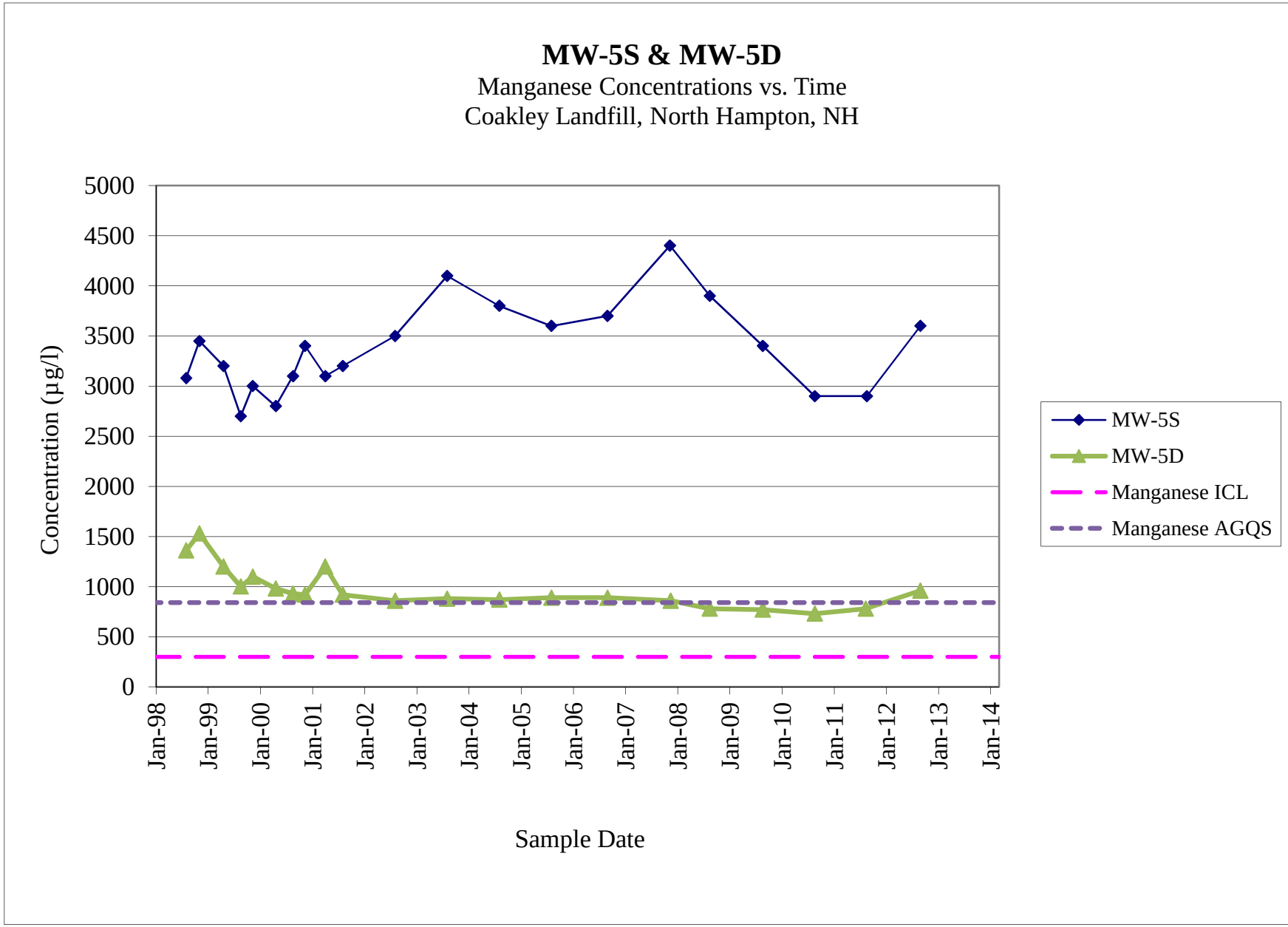
Note:

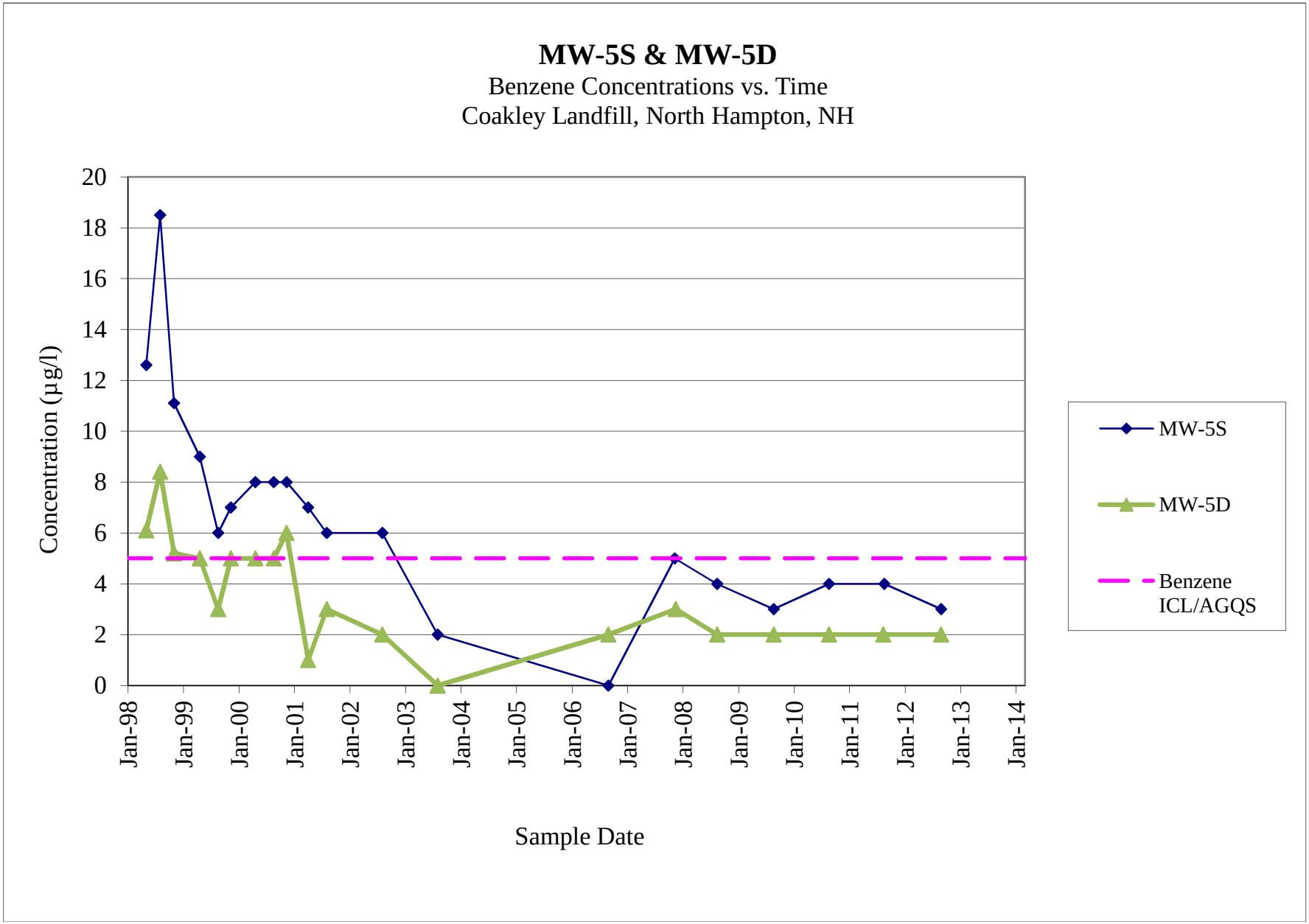
1. NHDES Ambient Groundwater Quality Standard for 1,4-Dioxane is 3 ug/L.

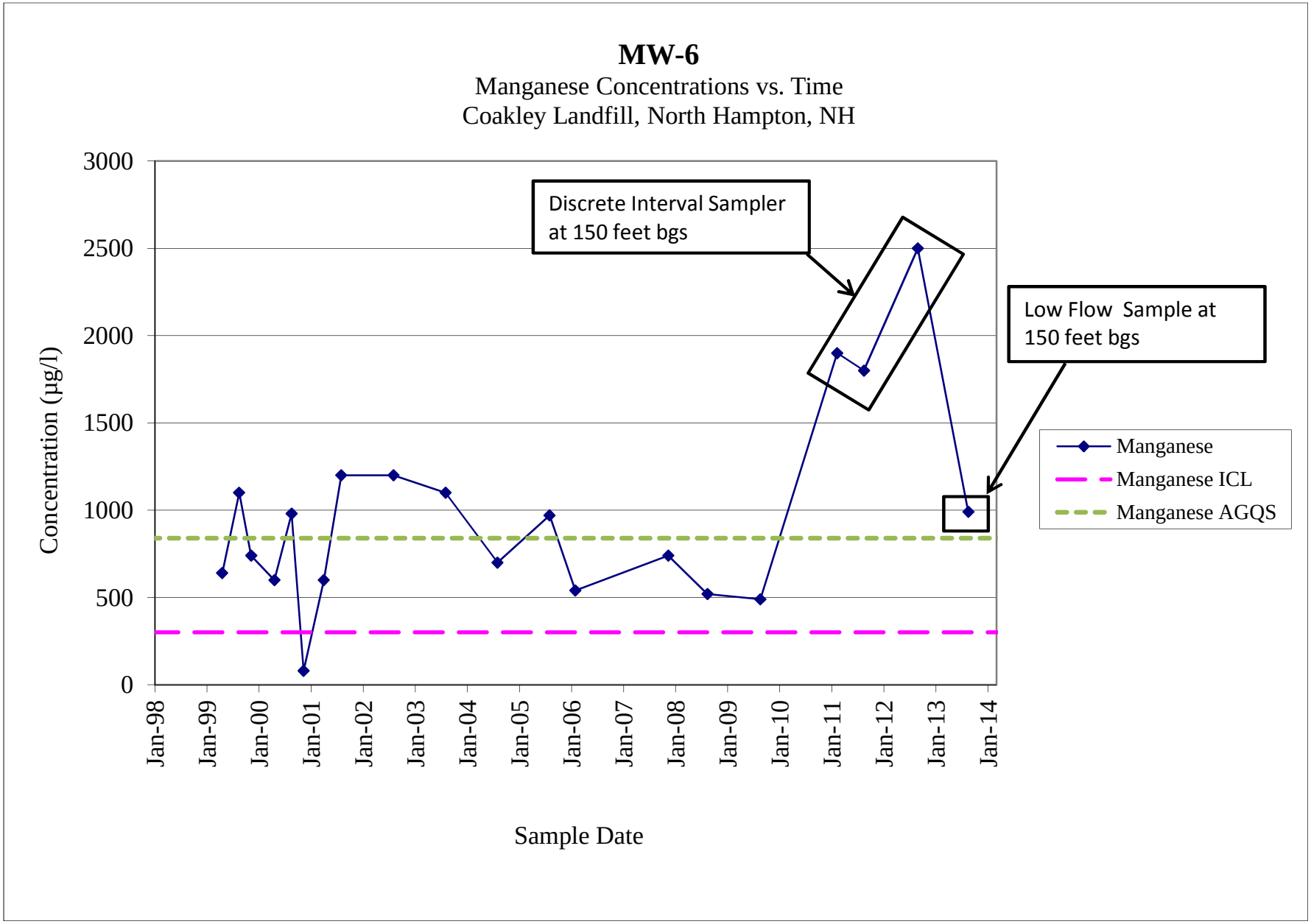

MW-4
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
140
120
100
80
60
40
20
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Arsenic
Arsenic ICL/AGQS


MW-4
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
14000
12000
10000
8000
6000
4000
2000
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Manganese
Manganese ICL
Manganese AGQS


MW-5S & MW-5D
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
30
25
20
15
10
5
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
MW-5S
MW-5D
Arsenic ICL/AGQS


MW-5S & MW-5D
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
MW-5S
MW-5D
Manganese ICL
Manganese AGQS

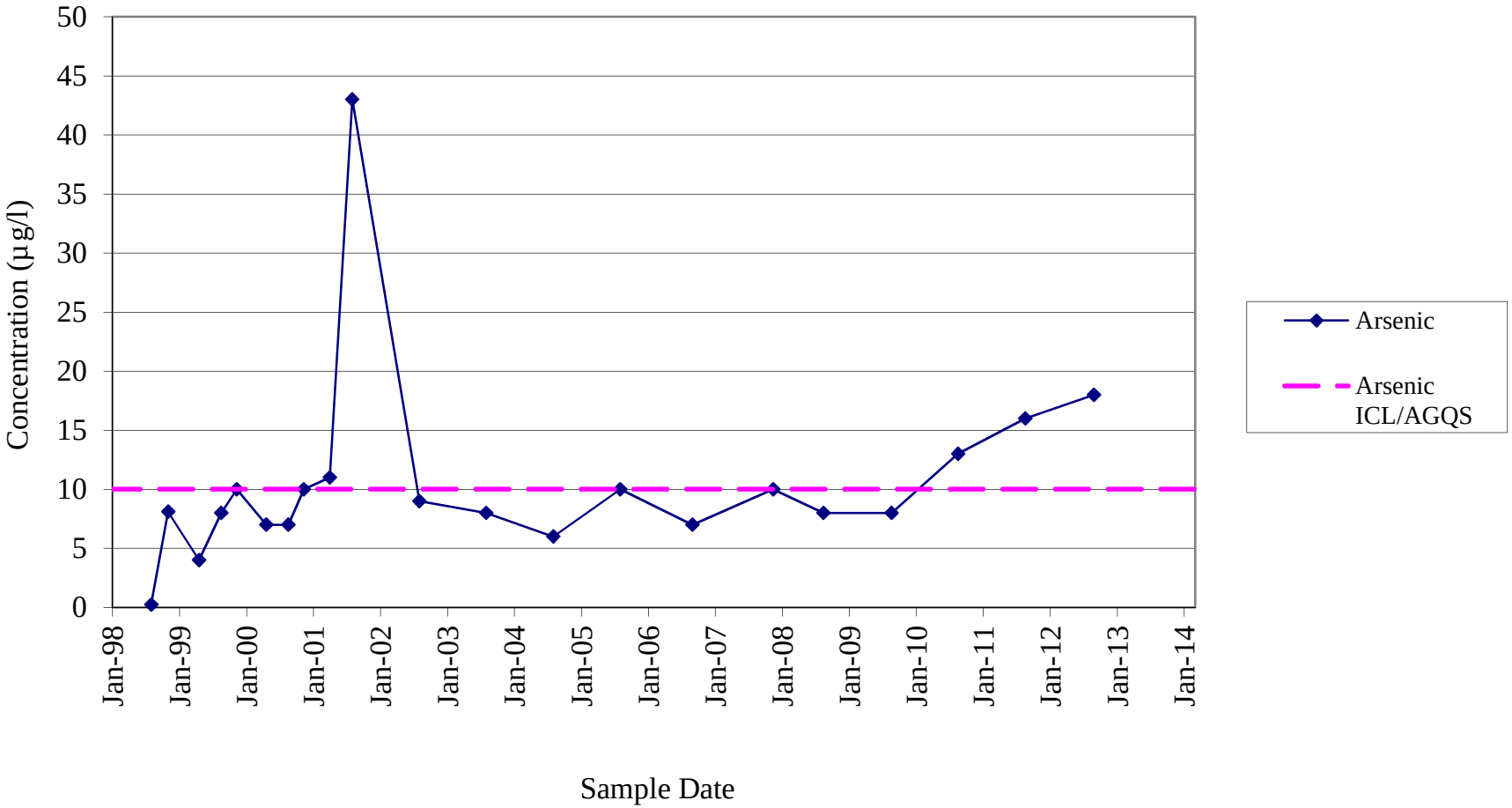

MW-5S & MW-5D
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
20
18
16
14
12
10
8
6
4
2
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
MW-5S
MW-5D
Benzene
ICL/AGQS

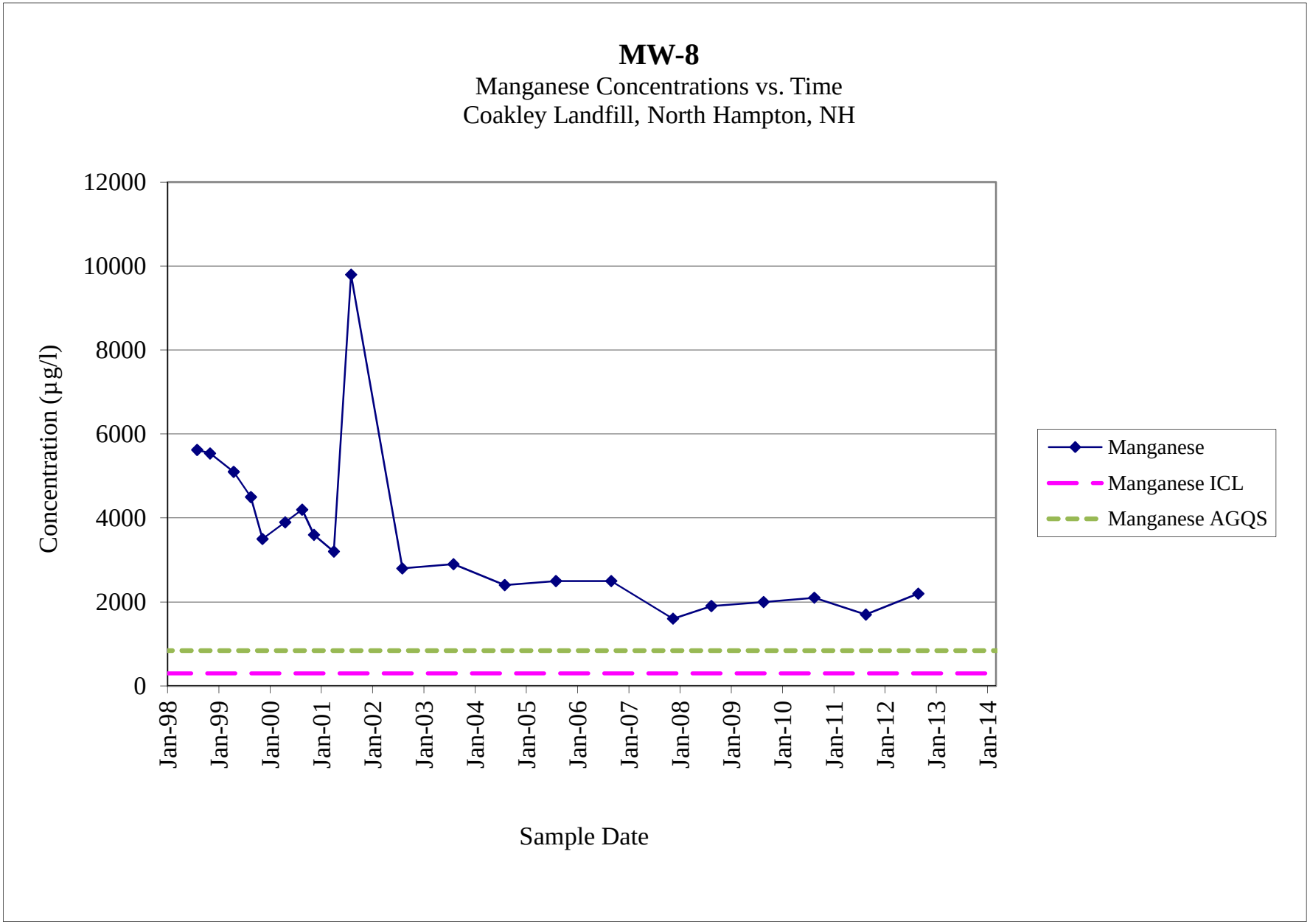

MW-6
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Discrete Interval Sampler at 150 feet bgs
Low Flow Sample at 150 feet bgs
Concentration (µg/l)
3000
2500
2000
1500
1000
500
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Manganese
Manganese ICL
Manganese AGQS

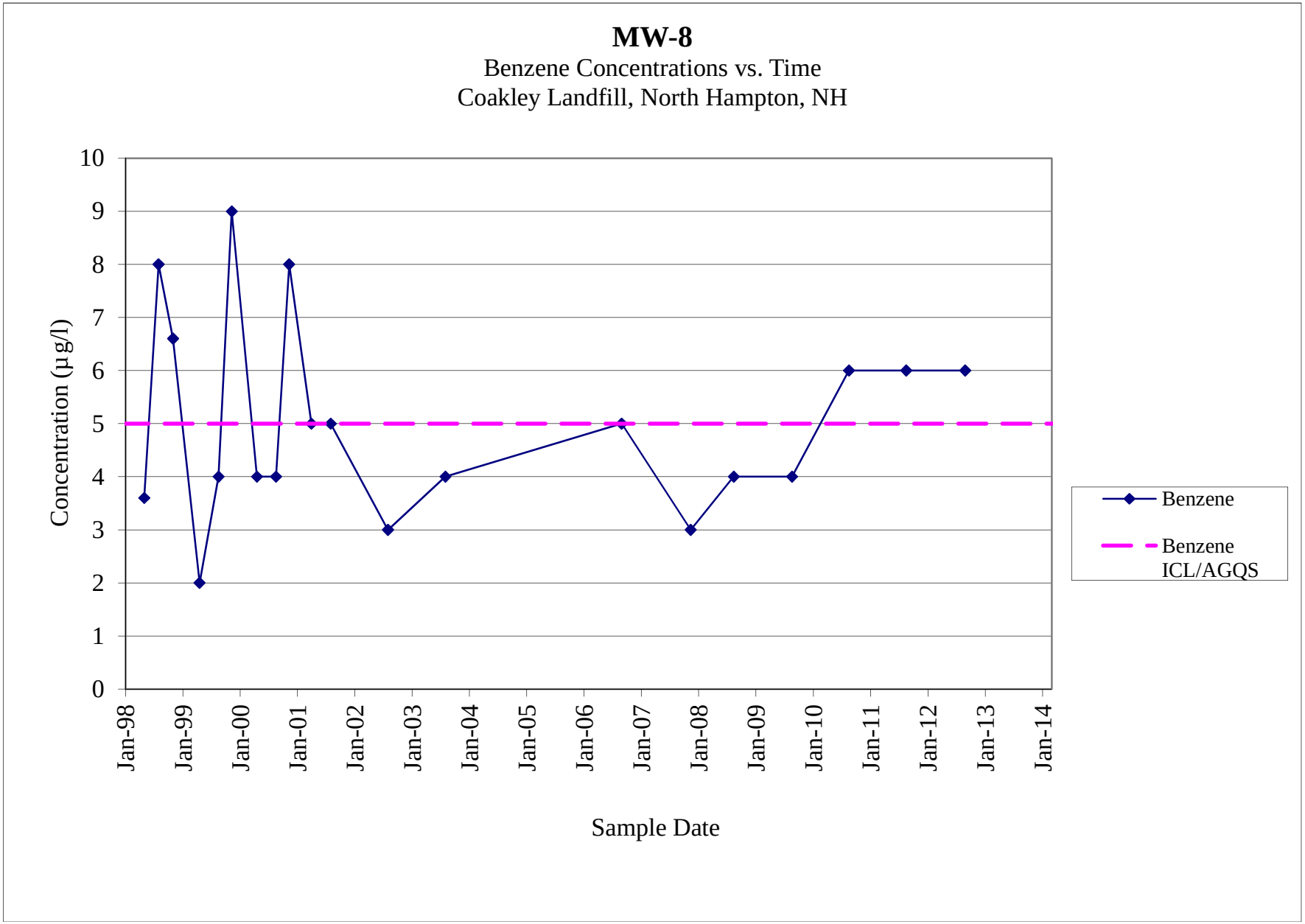
MW-8

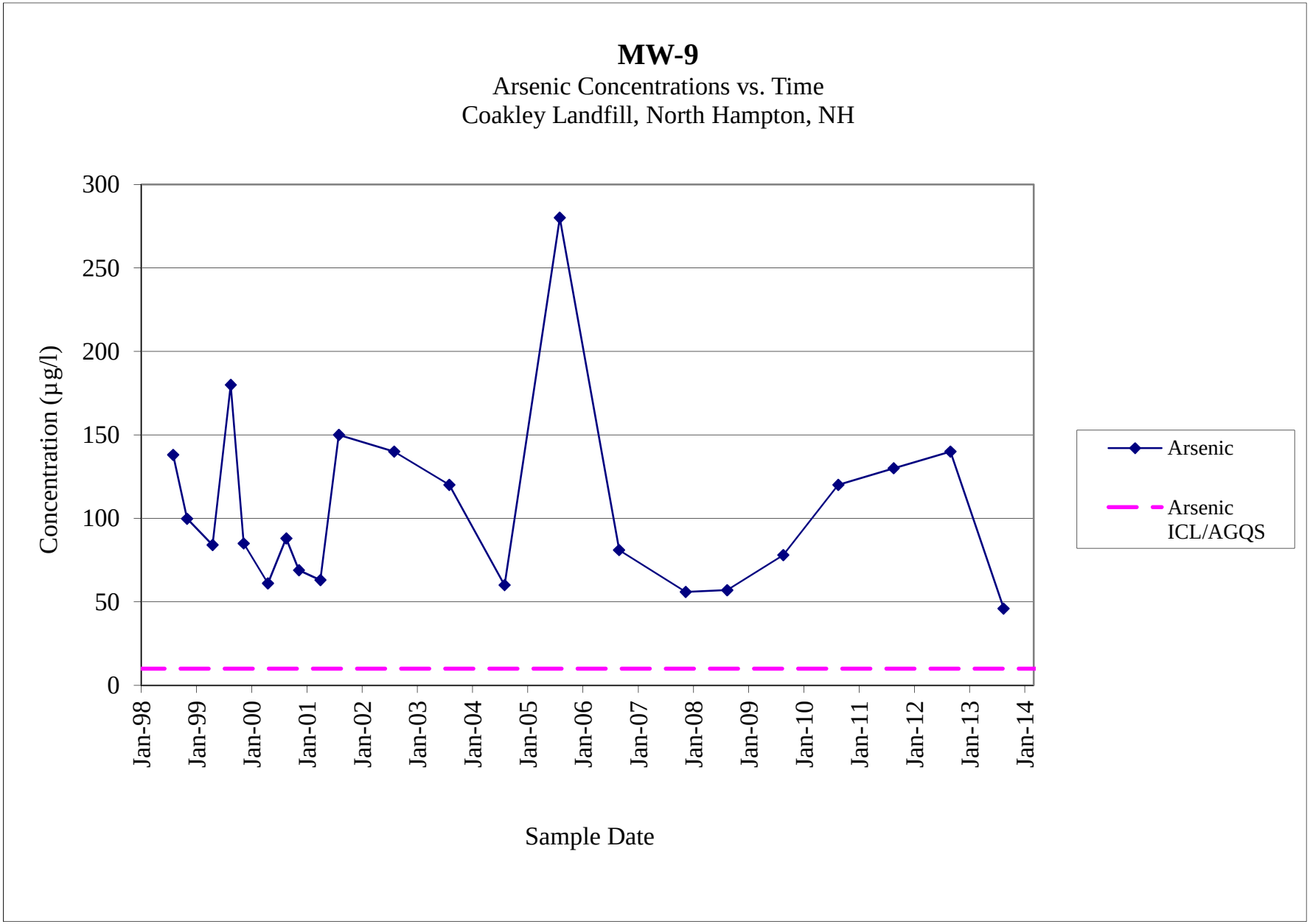
Arsenic Concentrations vs. Time

Coakley Landfill, North Hampton, NH




MW-8
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
12000
10000
8000
6000
4000
2000
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Manganese
Manganese ICL
Manganese AGQS

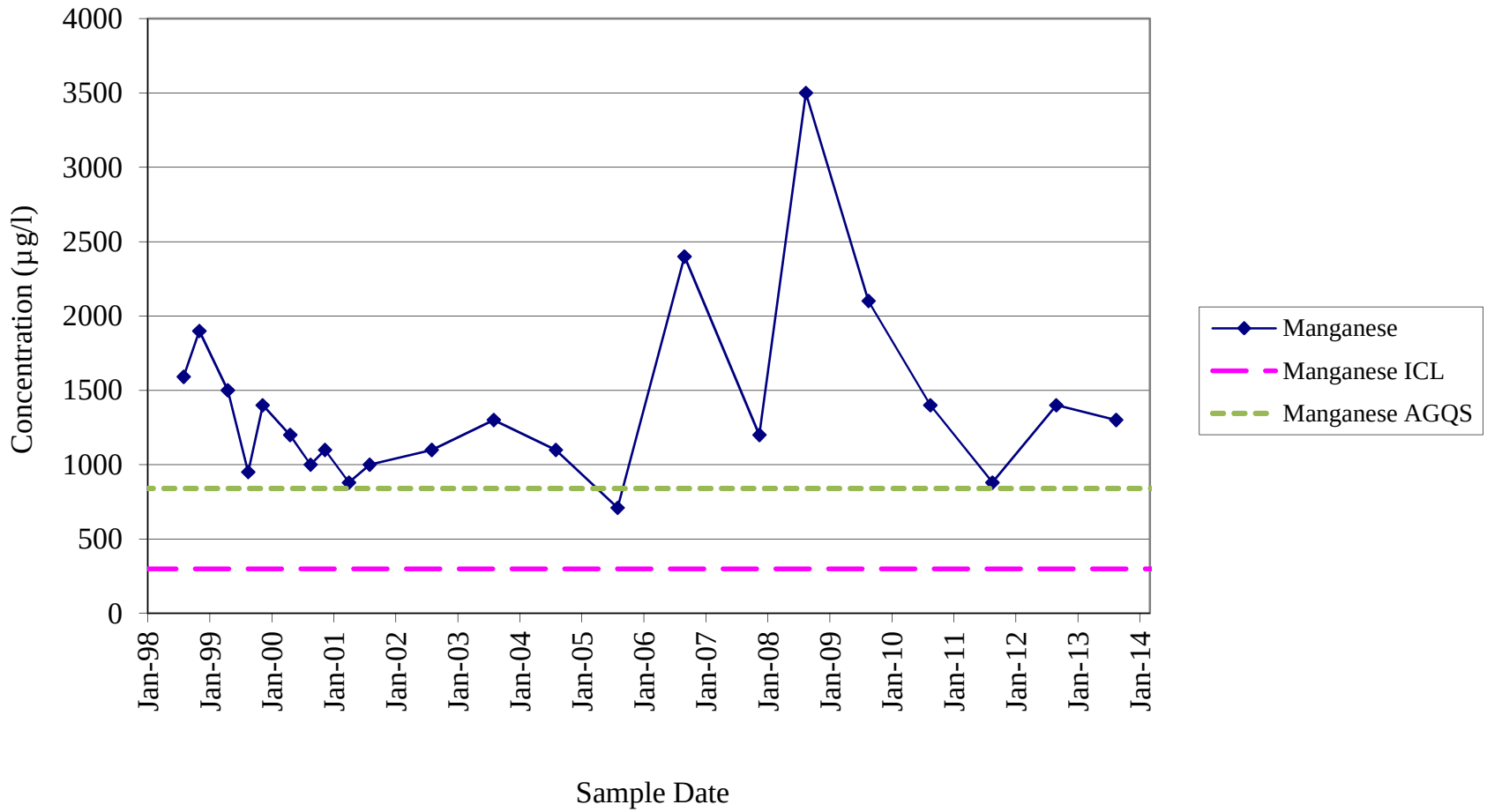

MW-8
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
10
9
8
7
6
5
4
3
2
1
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Benzene
Benzene ICL/AGQS


MW-9
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
300
250
200
150
100
50
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Arsenic
Arsenic ICL/AGQS

MW-9

Manganese Concentrations vs. Time

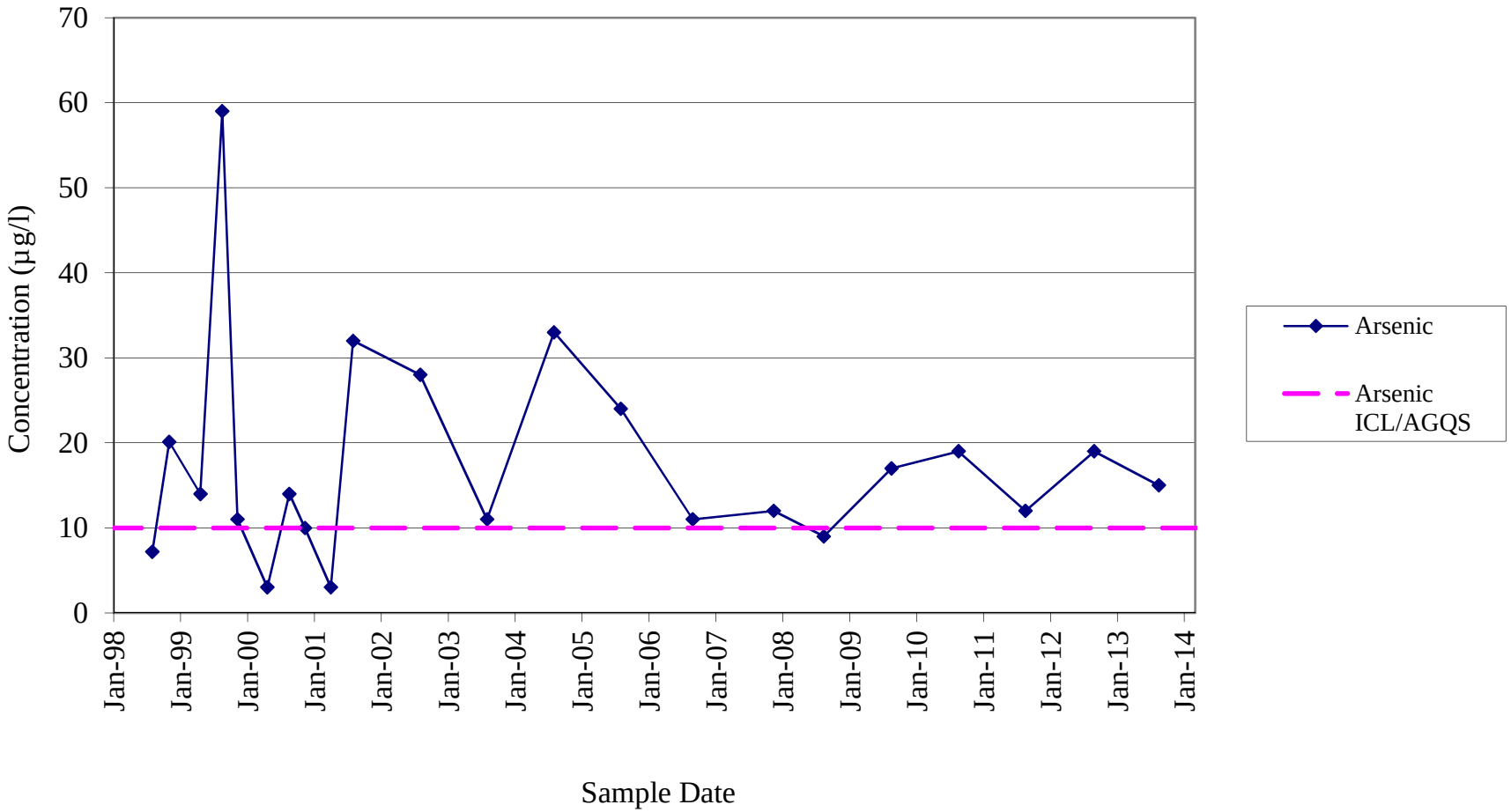
Coakley Landfill, North Hampton, NH



MW-10

Arsenic Concentrations vs. Time

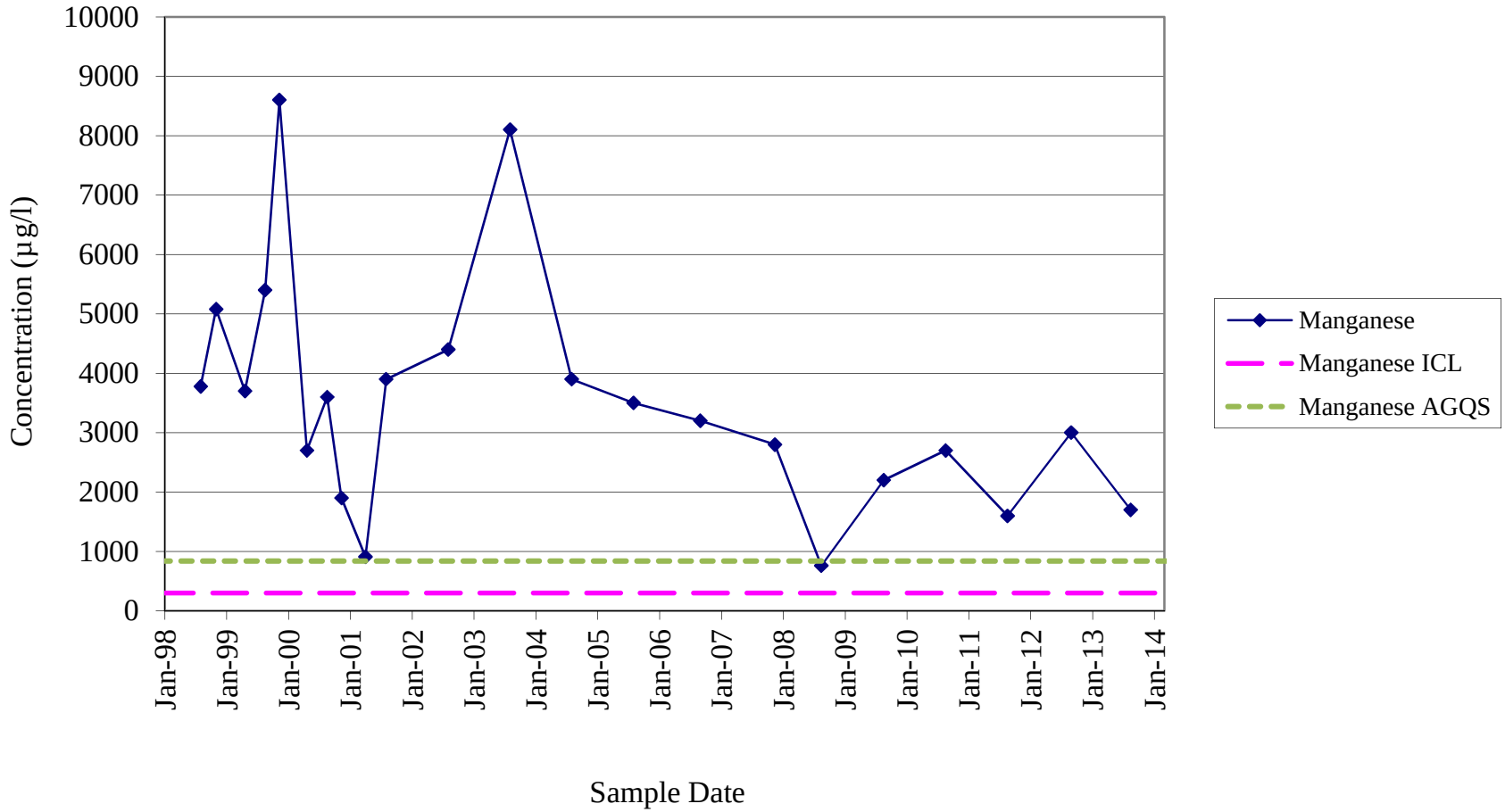
Coakley Landfill, North Hampton, NH



MW-10

Manganese Concentrations vs. Time

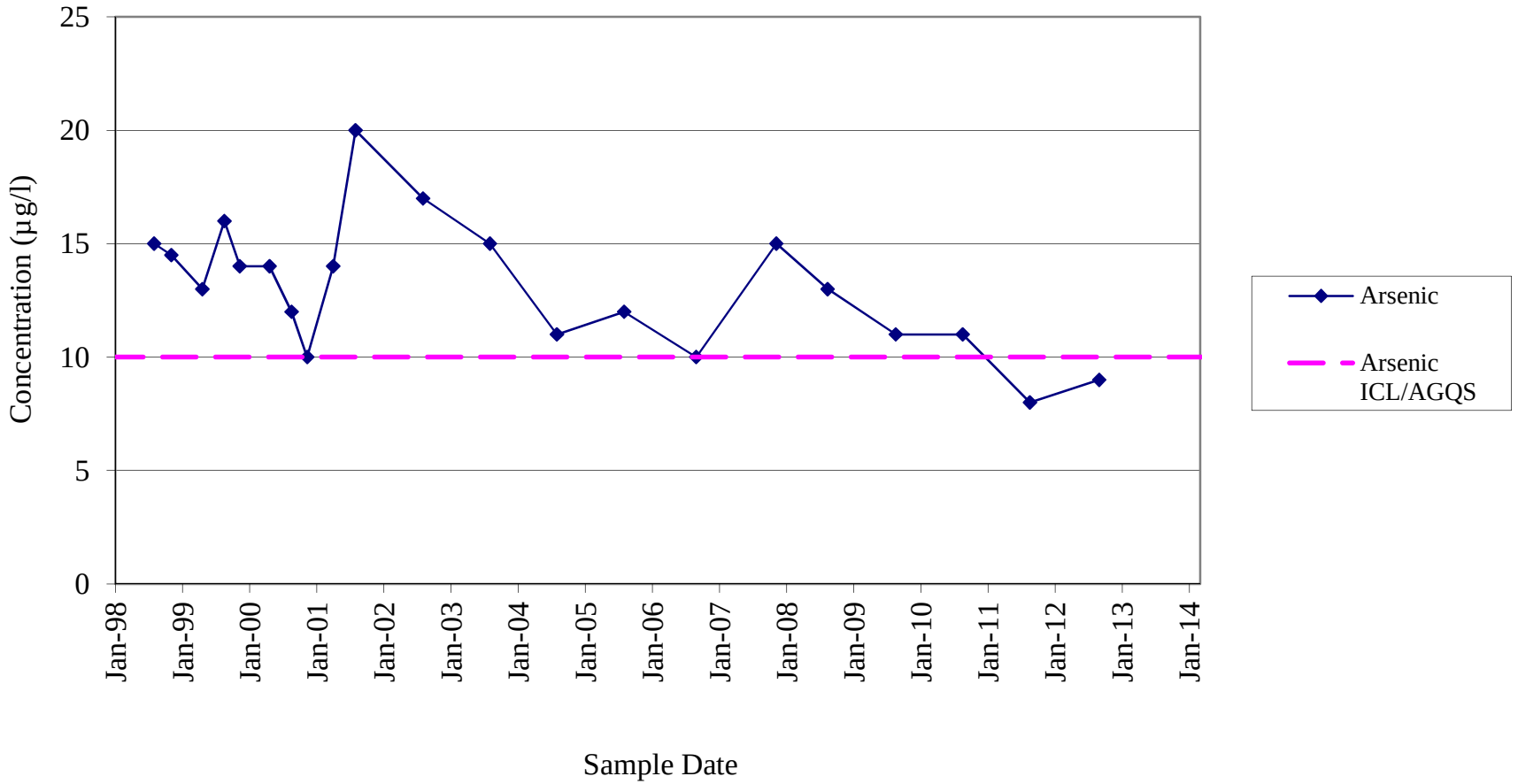
Coakley Landfill, North Hampton, NH



MW-11

Arsenic Concentrations vs. Time

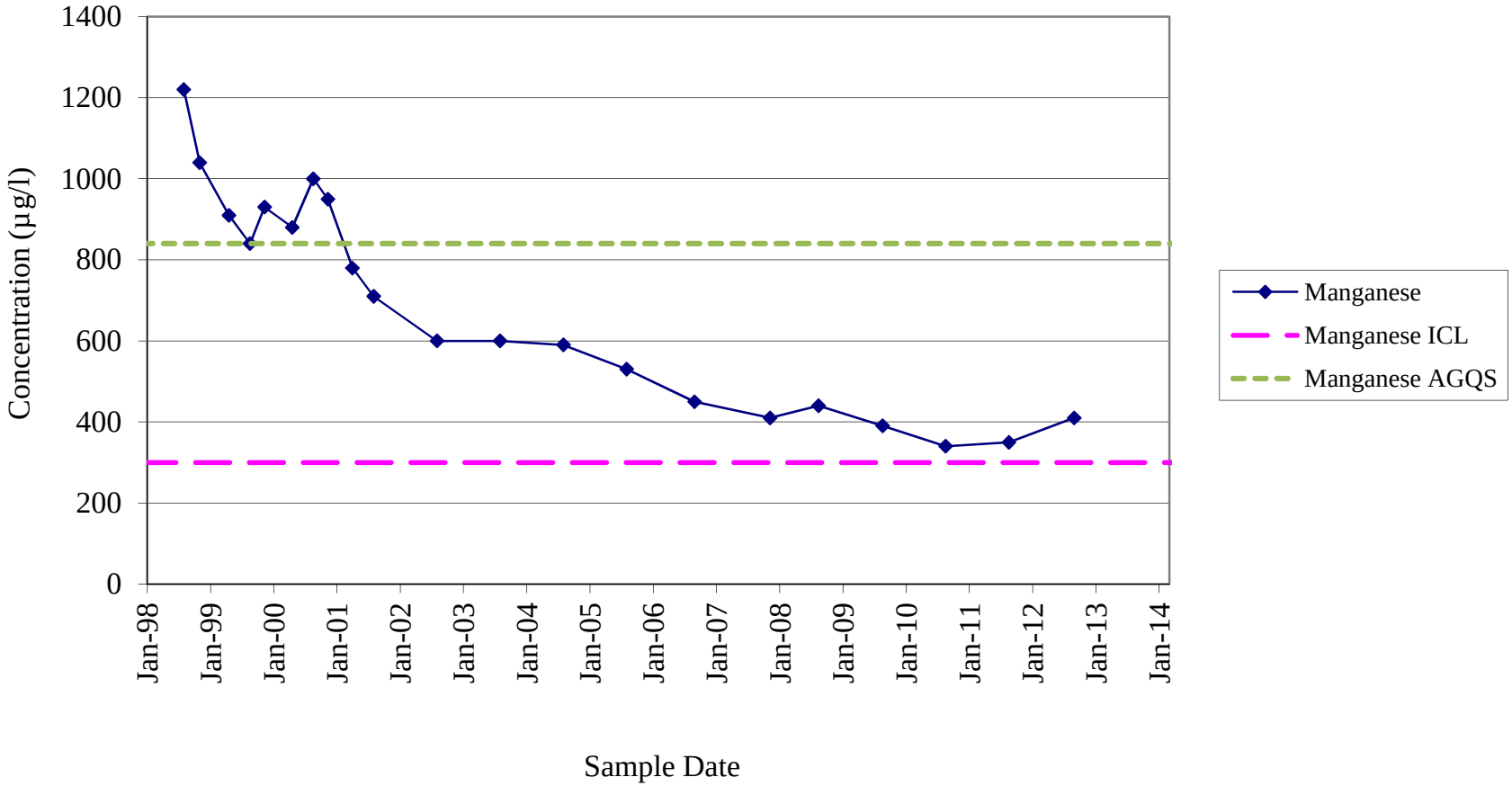
Coakley Landfill, North Hampton, NH



MW-11

Manganese Concentrations vs. Time

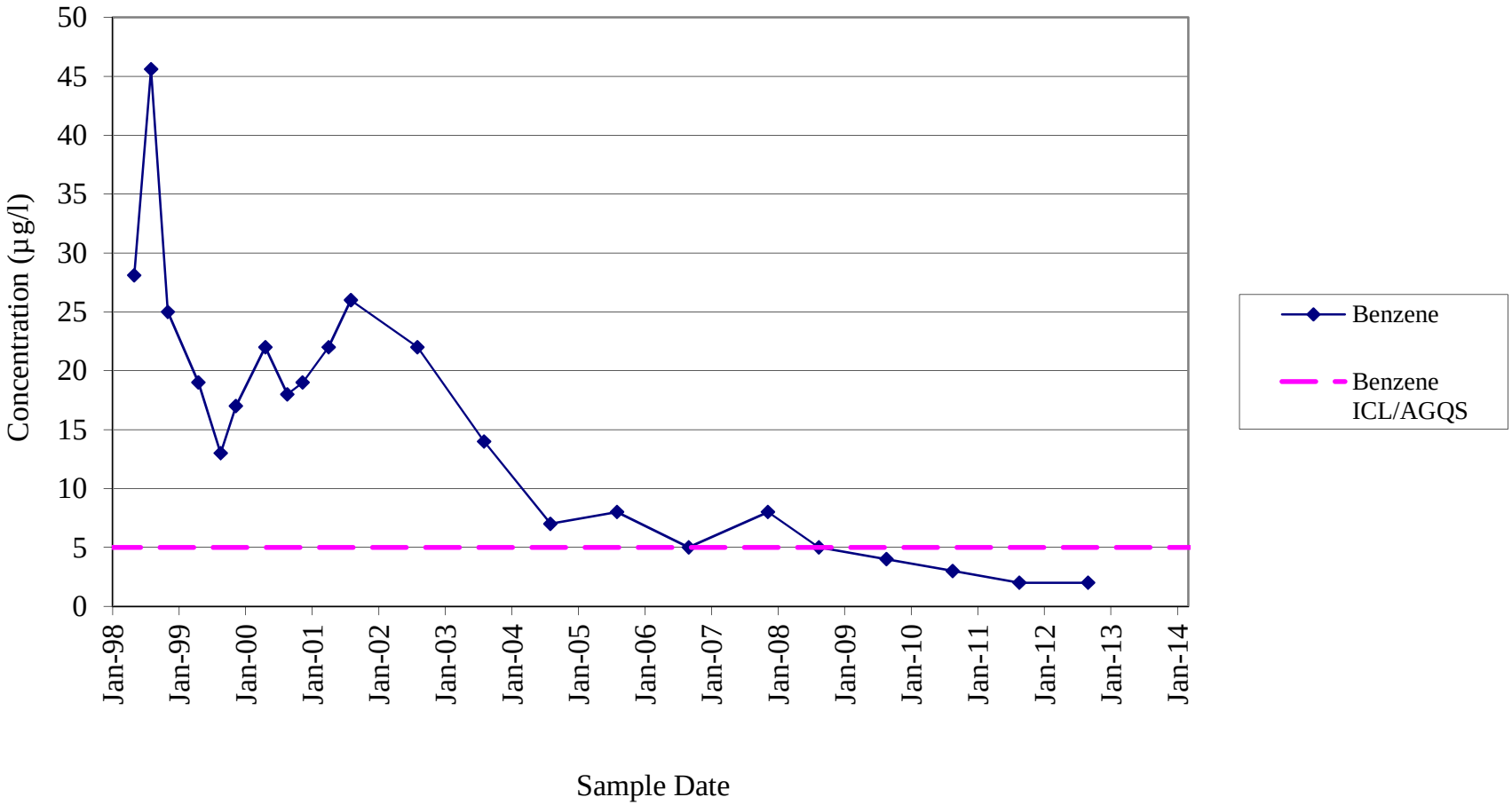
Coakley Landfill, North Hampton, NH



MW-11

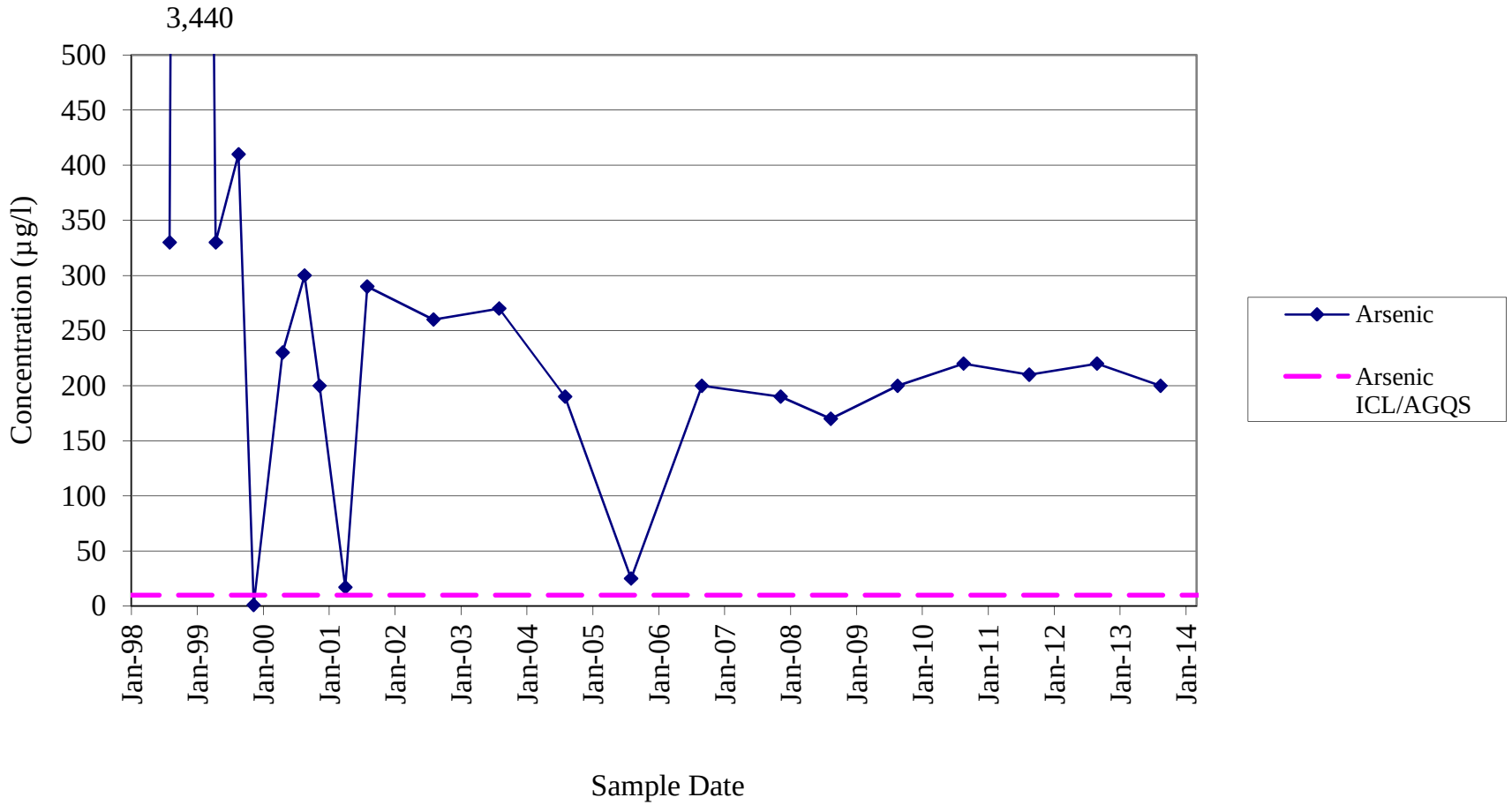
Benzene Concentrations vs. Time

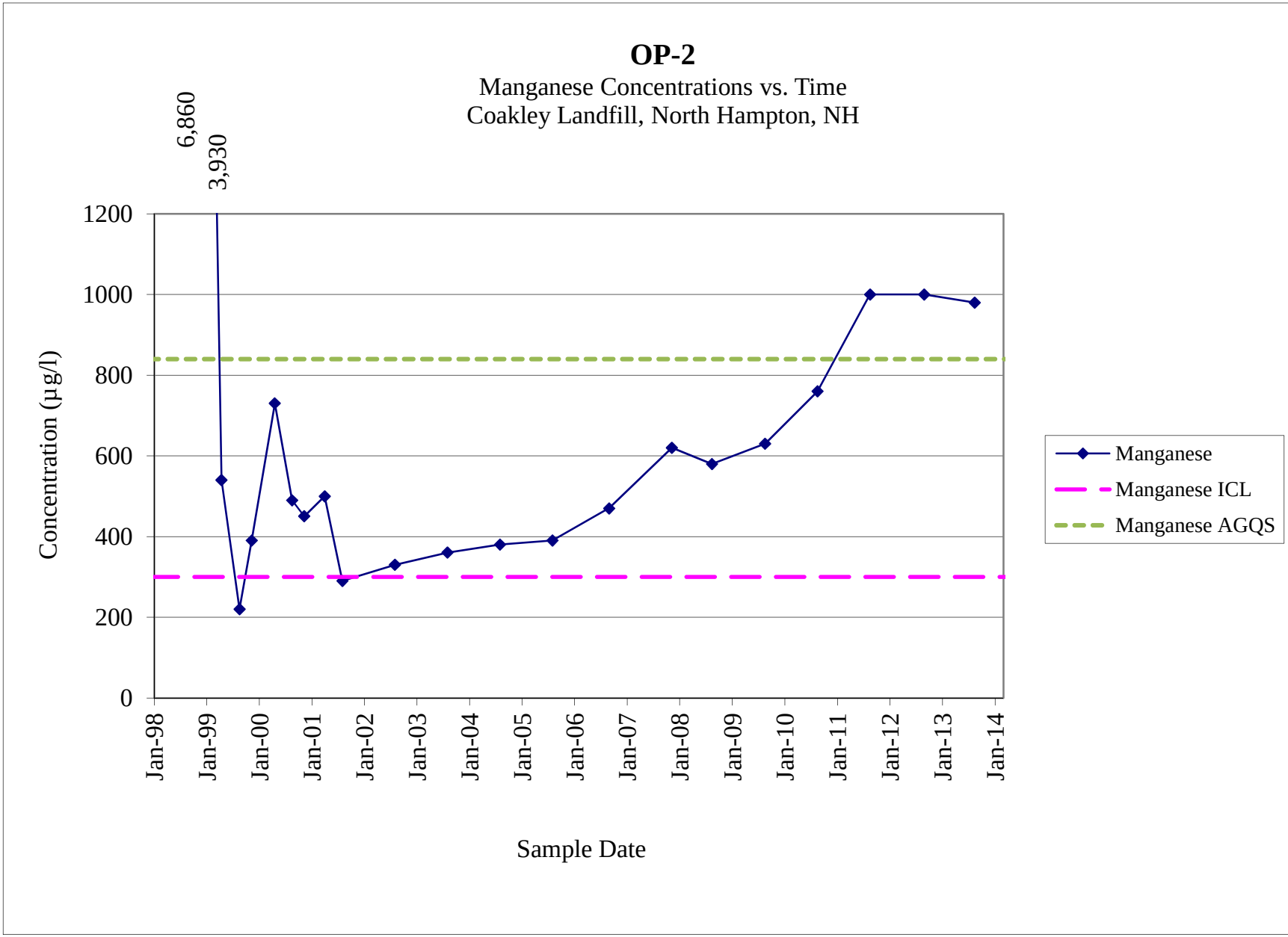
Coakley Landfill, North Hampton, NH



OP-2

Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH

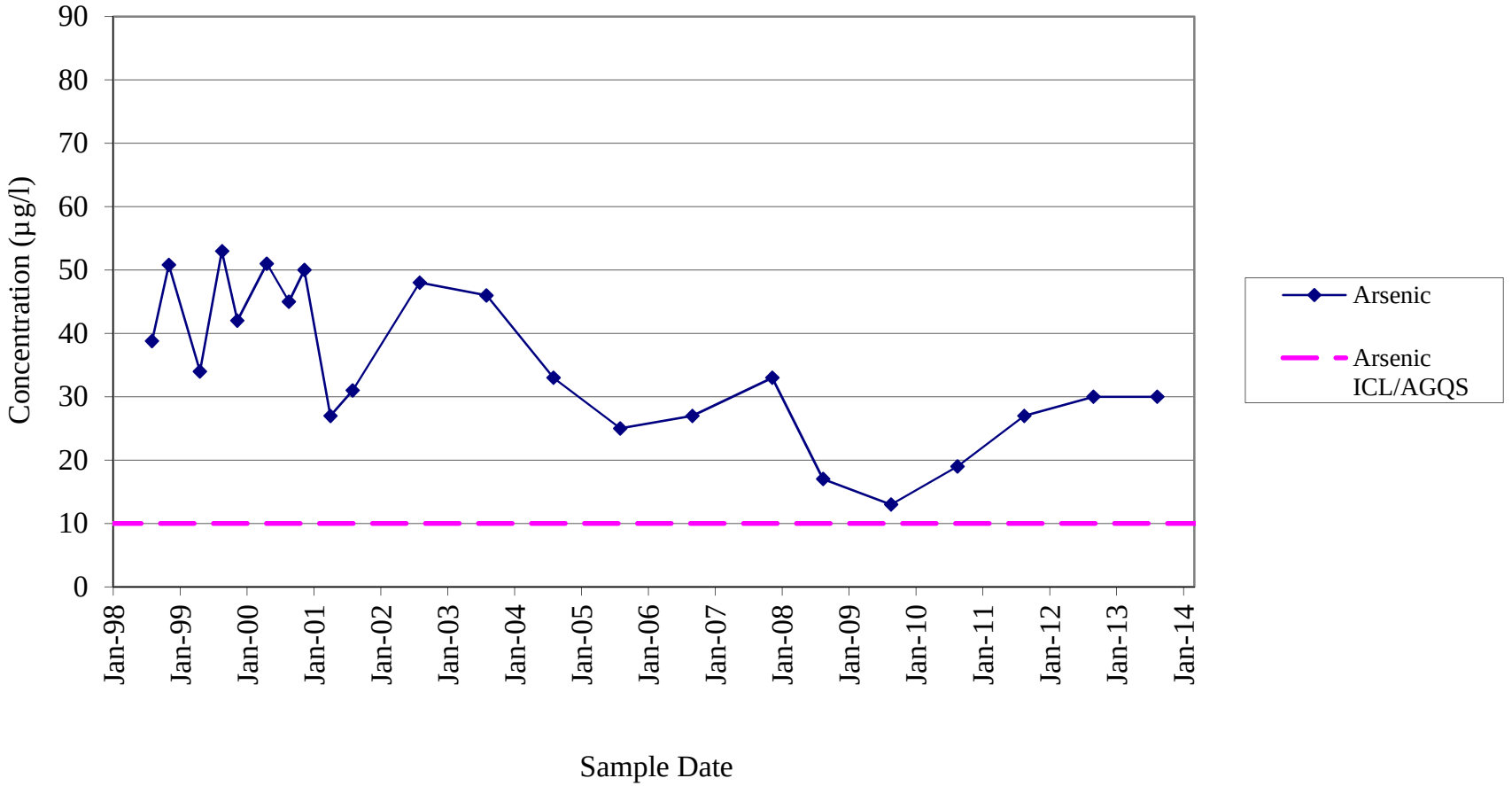



OP-2
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
6,860
3,930
Concentration (µg/l)
1200
1000
800
600
400
200
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
Manganese
Manganese ICL
Manganese AGQS

OP-5

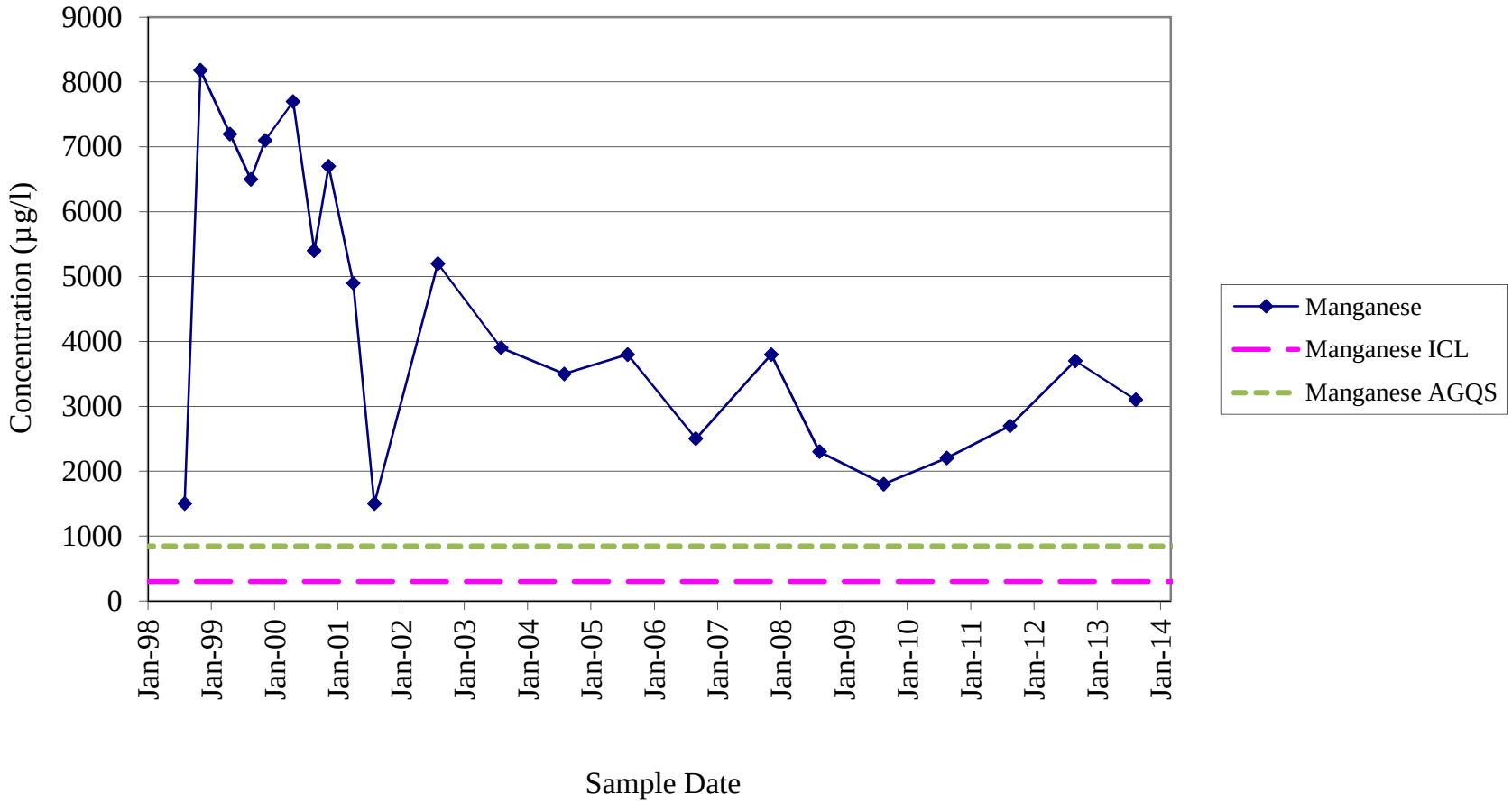
Arsenic Concentrations vs. Time

Coakley Landfill, North Hampton, NH



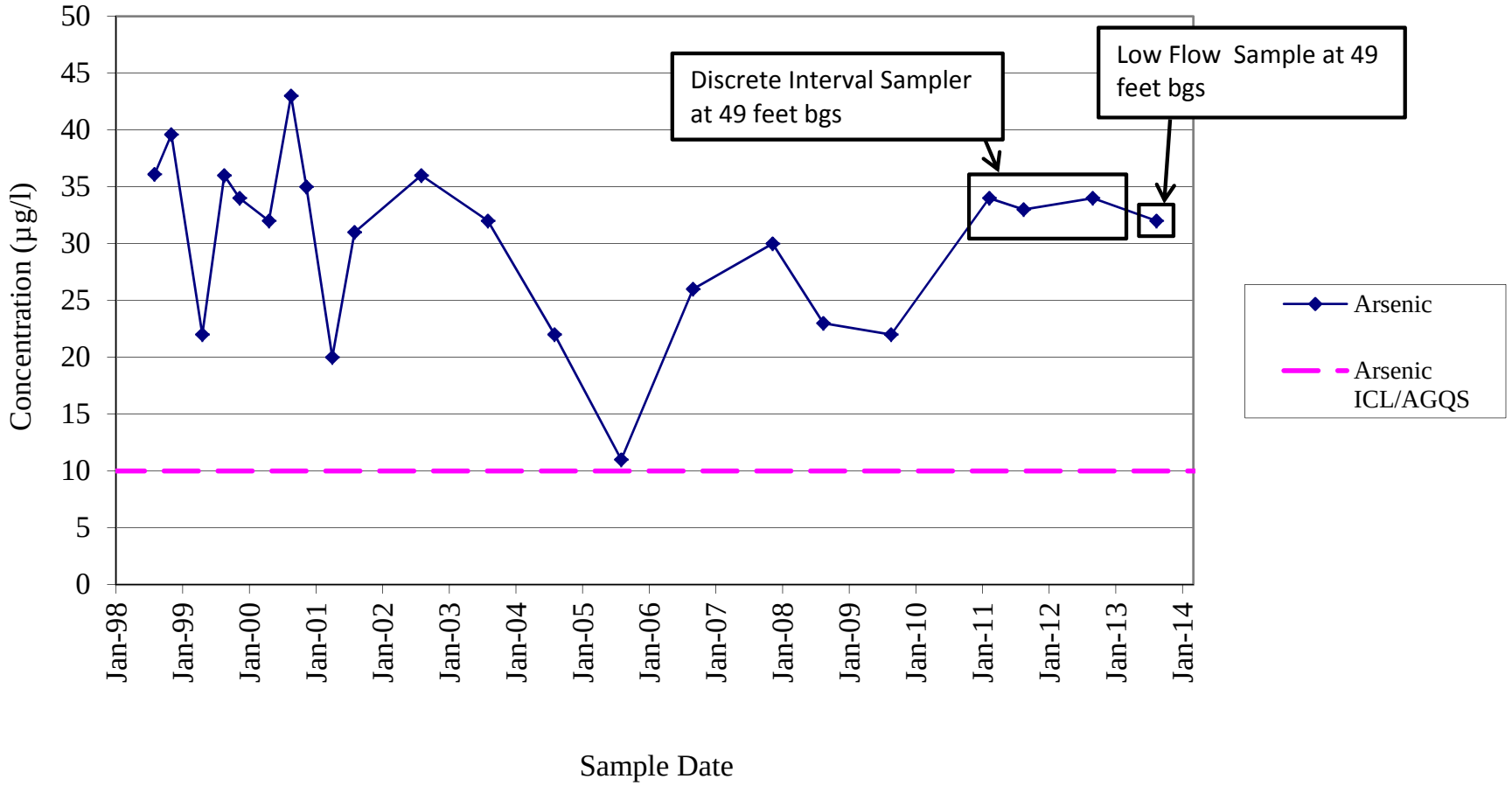
OP-5

Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH



BP-4

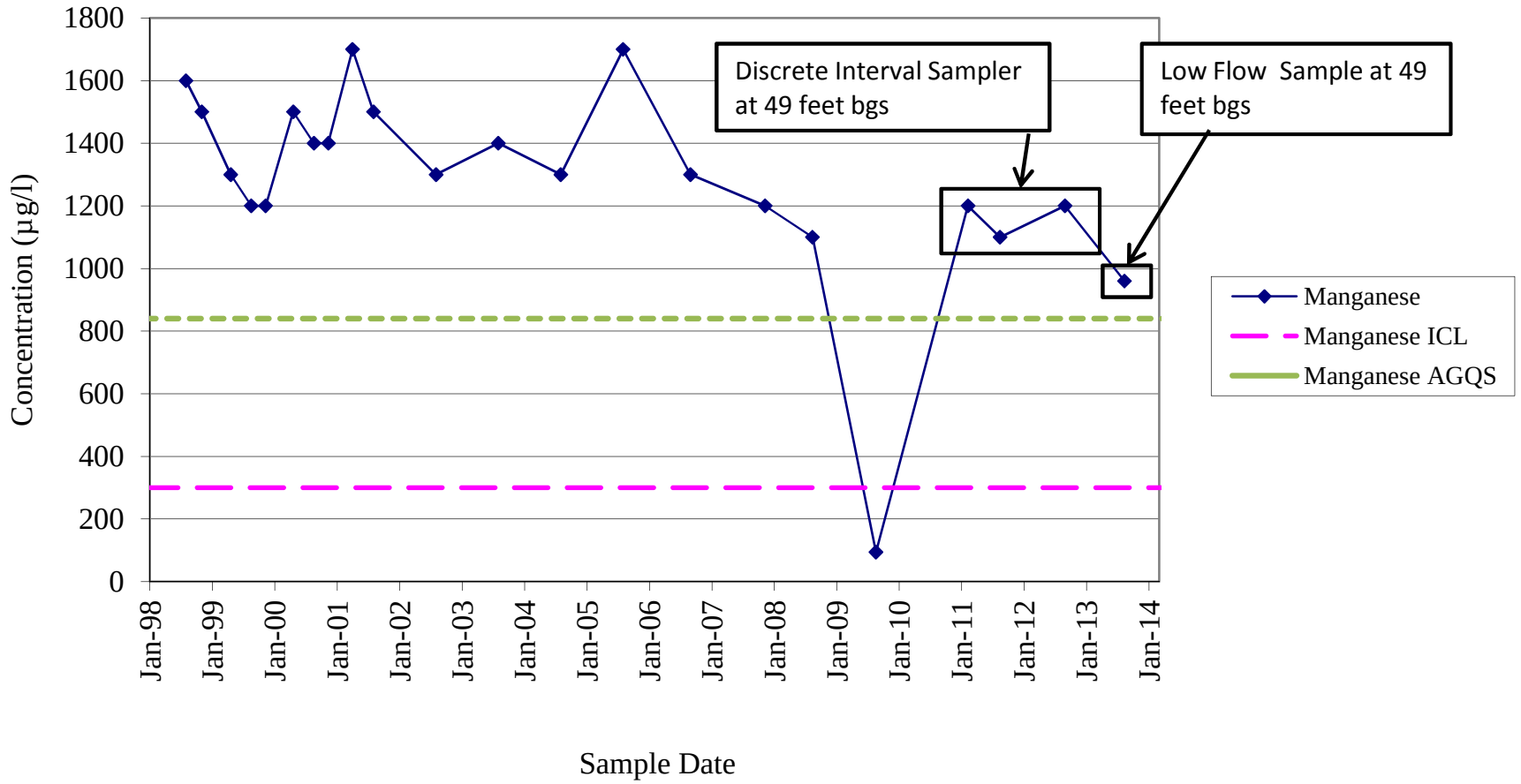
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH

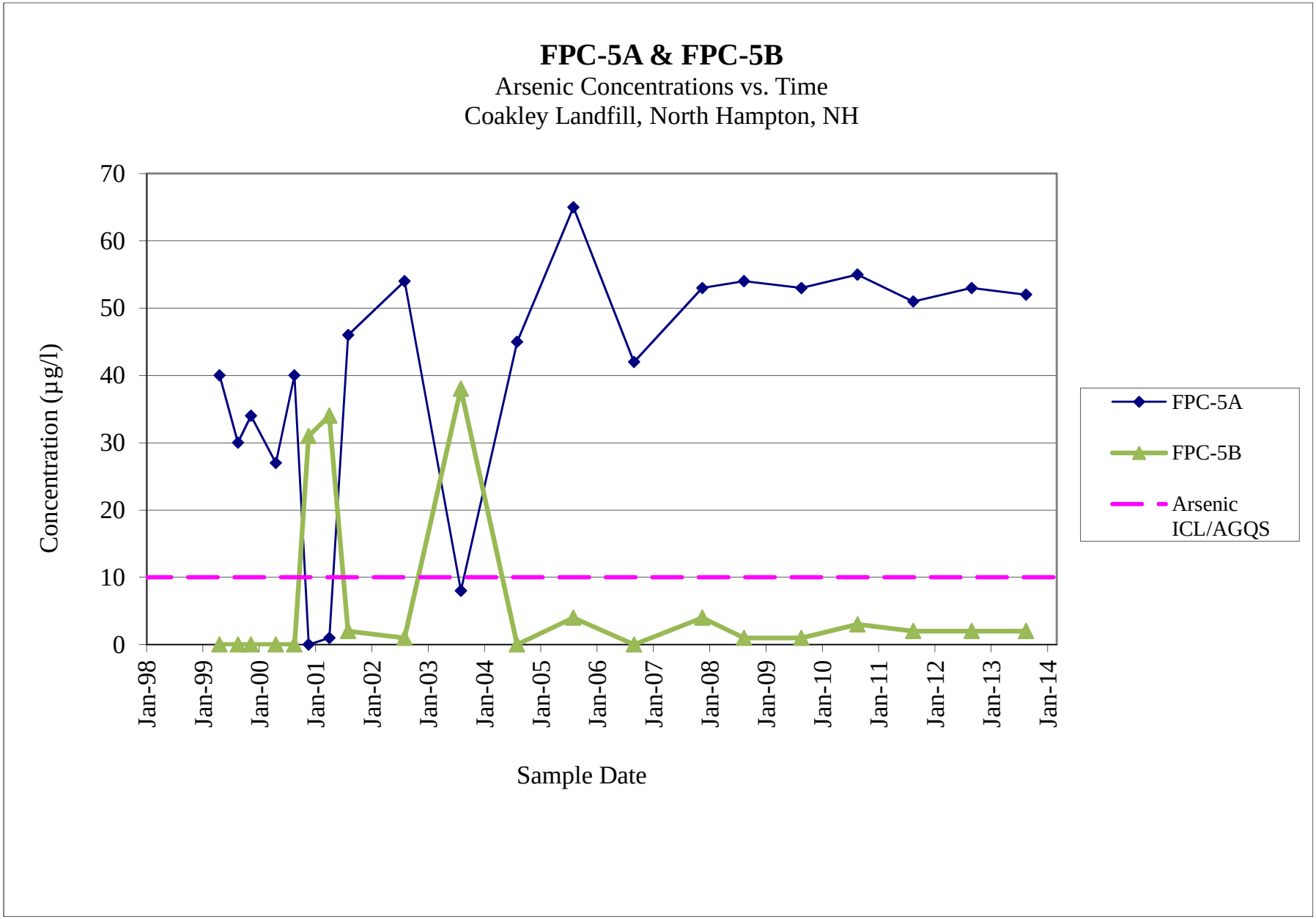


BP-4

Manganese Concentrations vs. Time

Coakley Landfill, North Hampton, NH

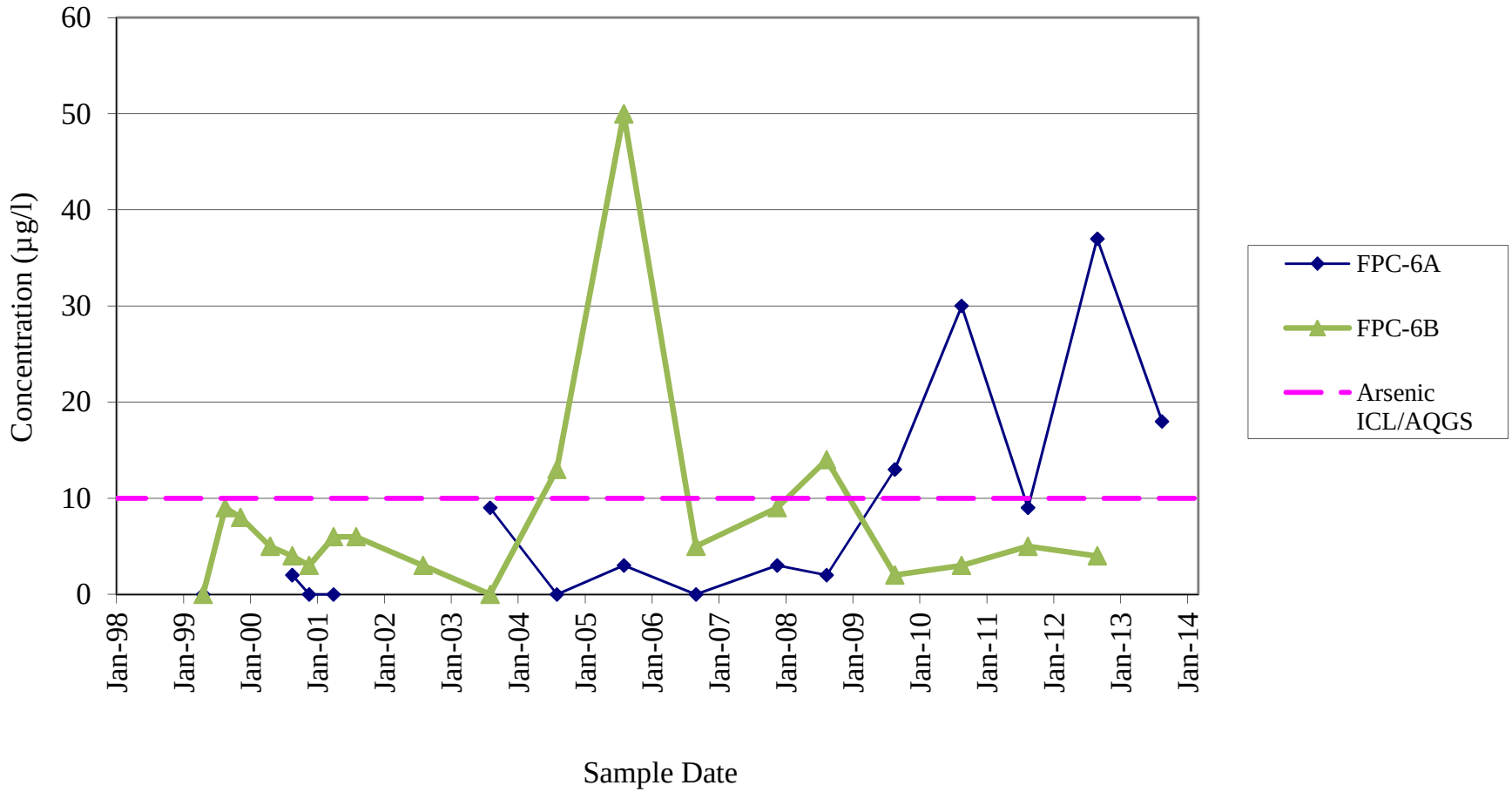



FPC-5A & FPC-5B
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
70
60
50
40
30
20
10
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
FPC-5A
FPC-5B
Arsenic ICL/AGQS

FPC-6A & FPC-6B

Arsenic Concentrations vs. Time

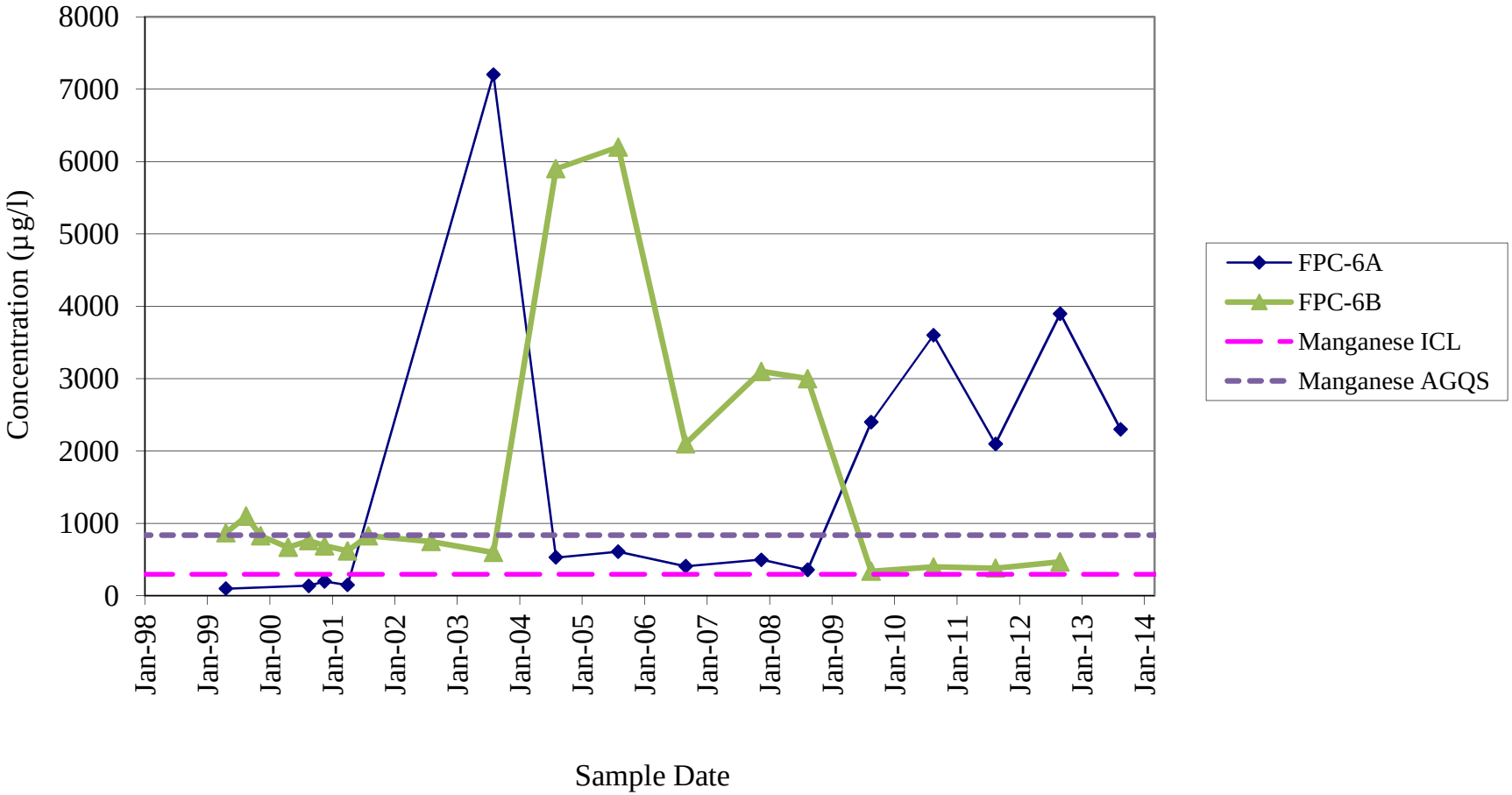
Coakley Landfill, North Hampton, NH



FPC-6A & FPC-6B

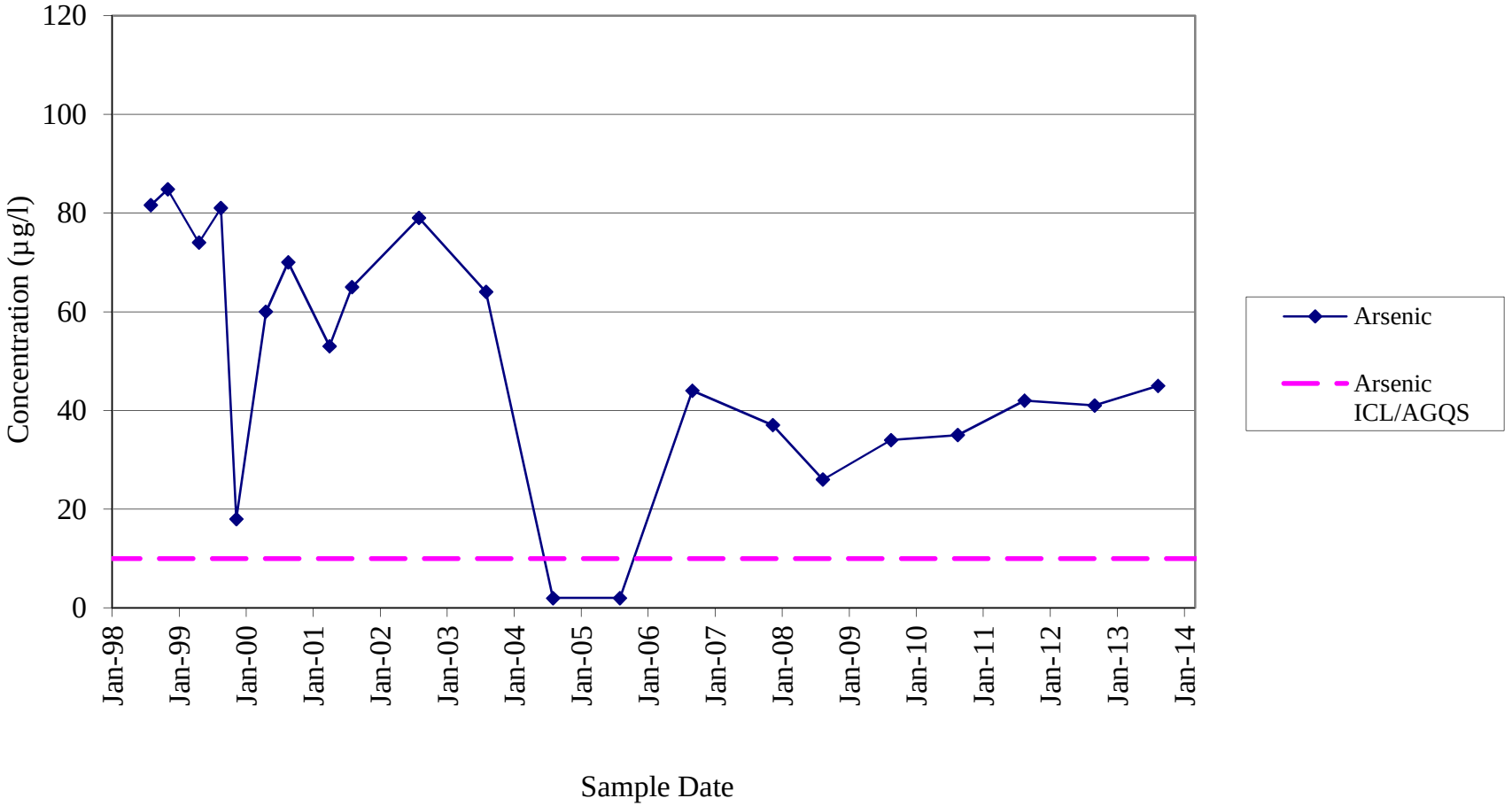
Manganese Concentrations vs. Time

Coakley Landfill, North Hampton, NH



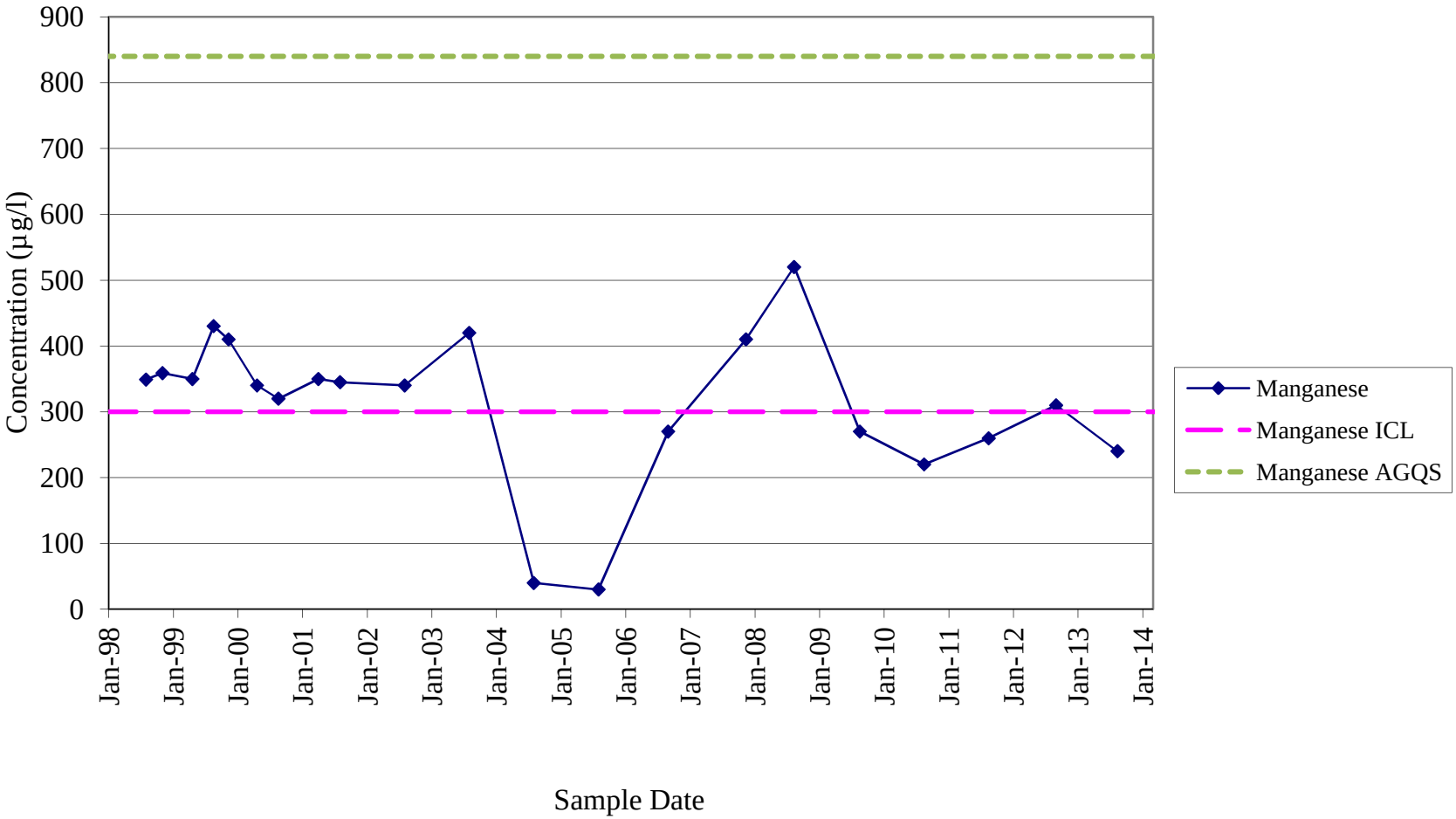
FPC-9A

Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH



FPC-9A

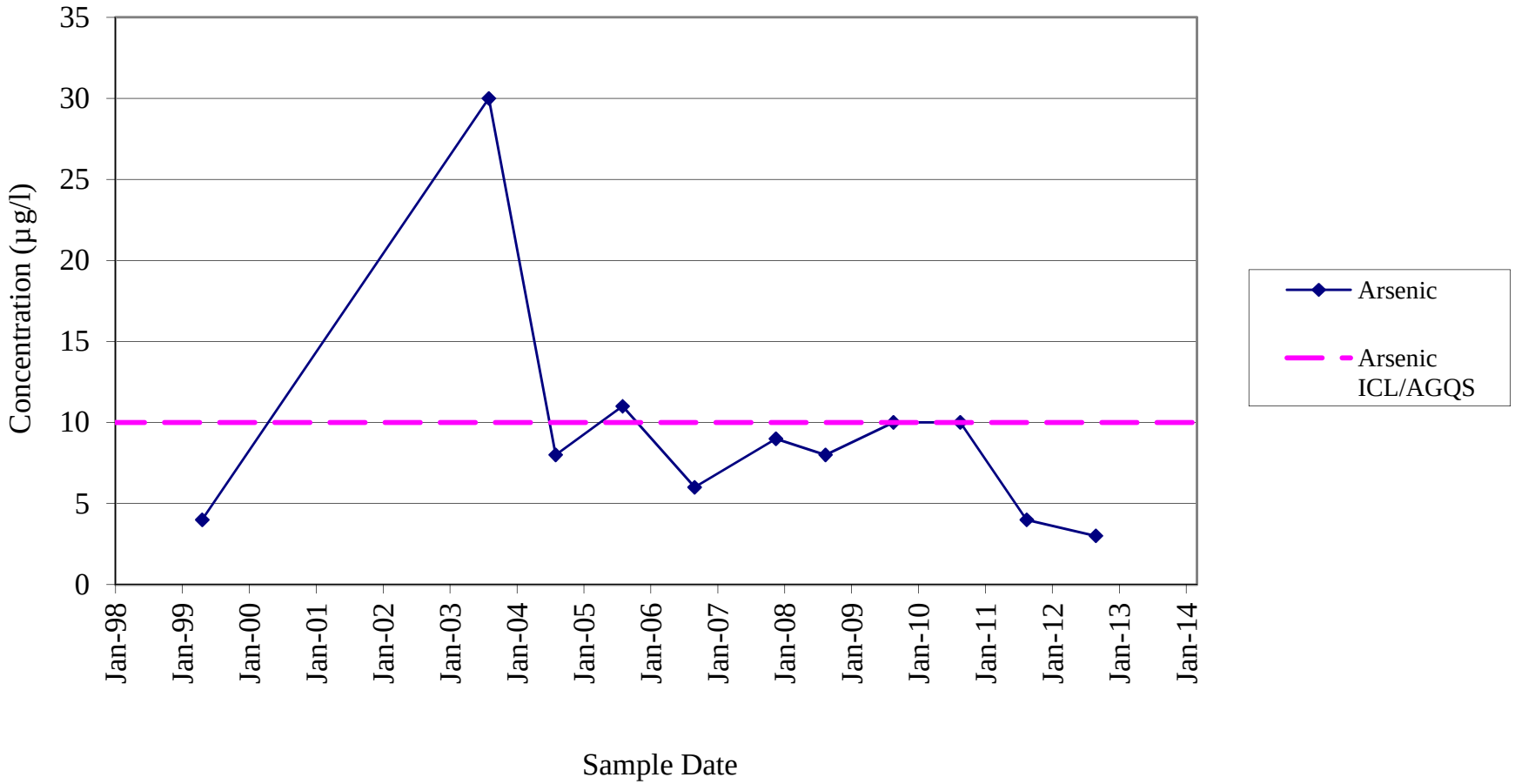
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH



FPC-11B

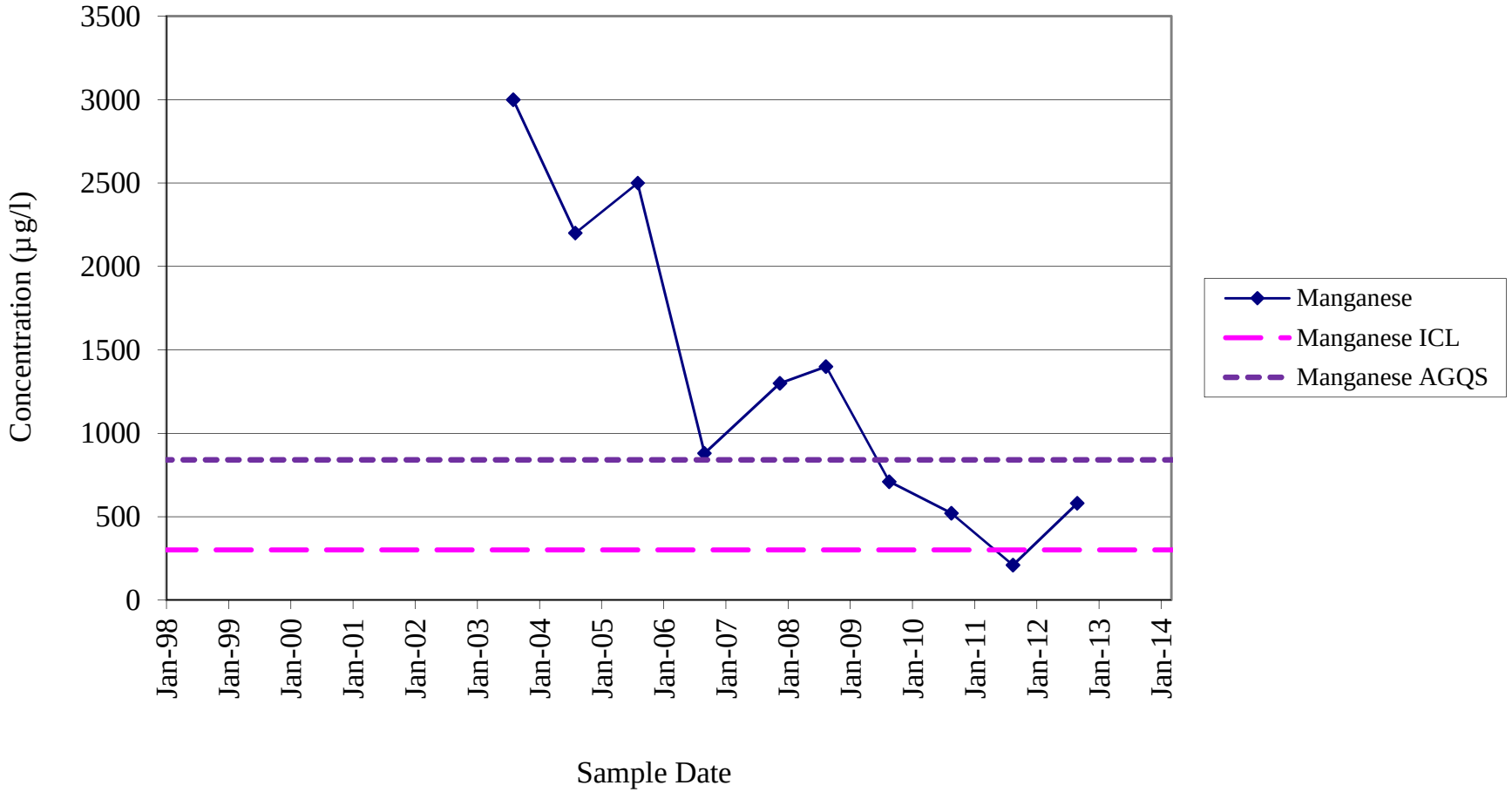
Arsenic Concentrations vs. Time

Coakley Landfill, North Hampton, NH



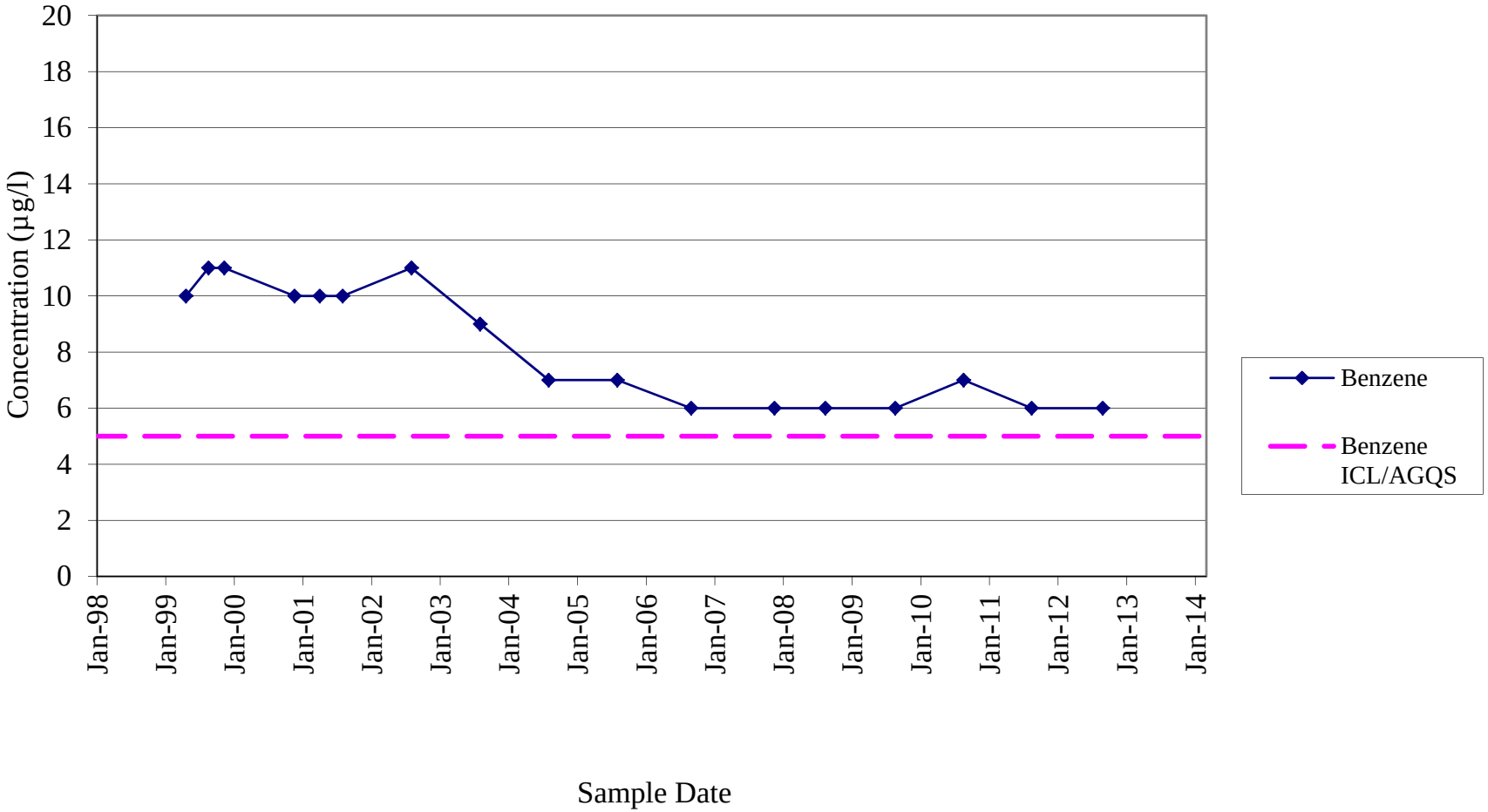
FPC-11B

Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH



GZ-105

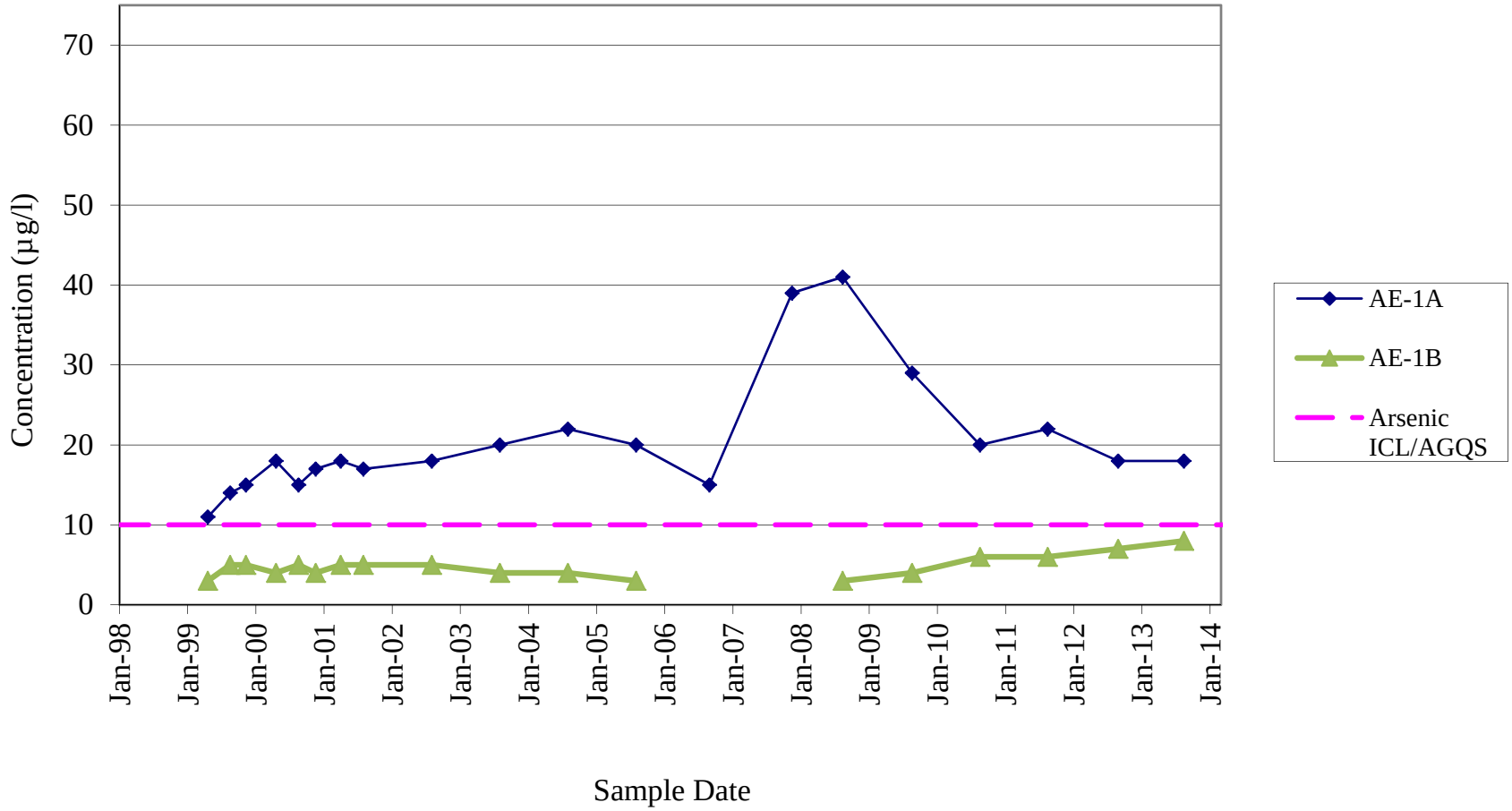
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH



AE-1A & AE-1B

Arsenic Concentrations vs. Time

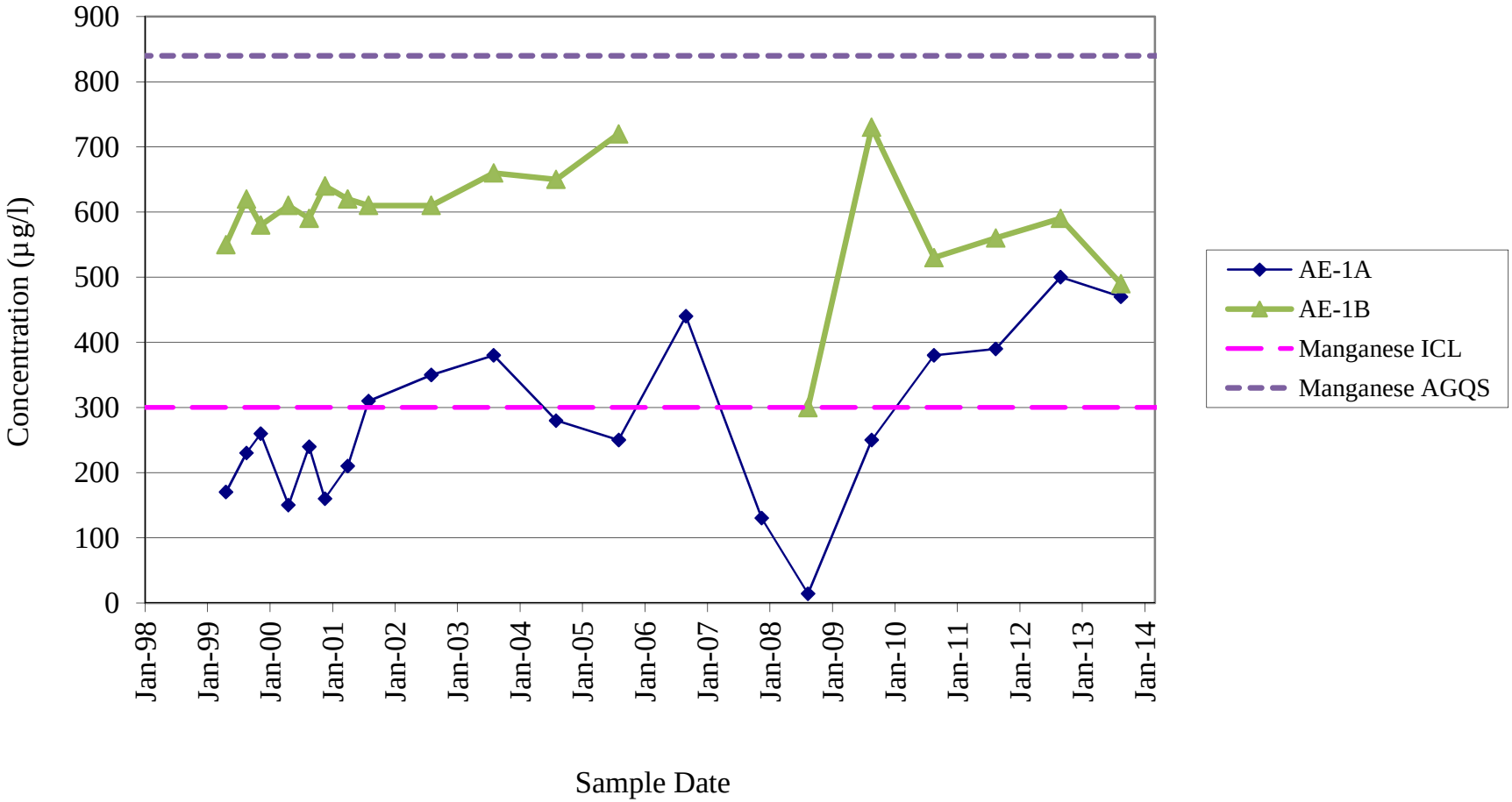
Coakley Landfill, North Hampton, NH



AE-1A & AE-1B

Manganese Concentrations vs. Time

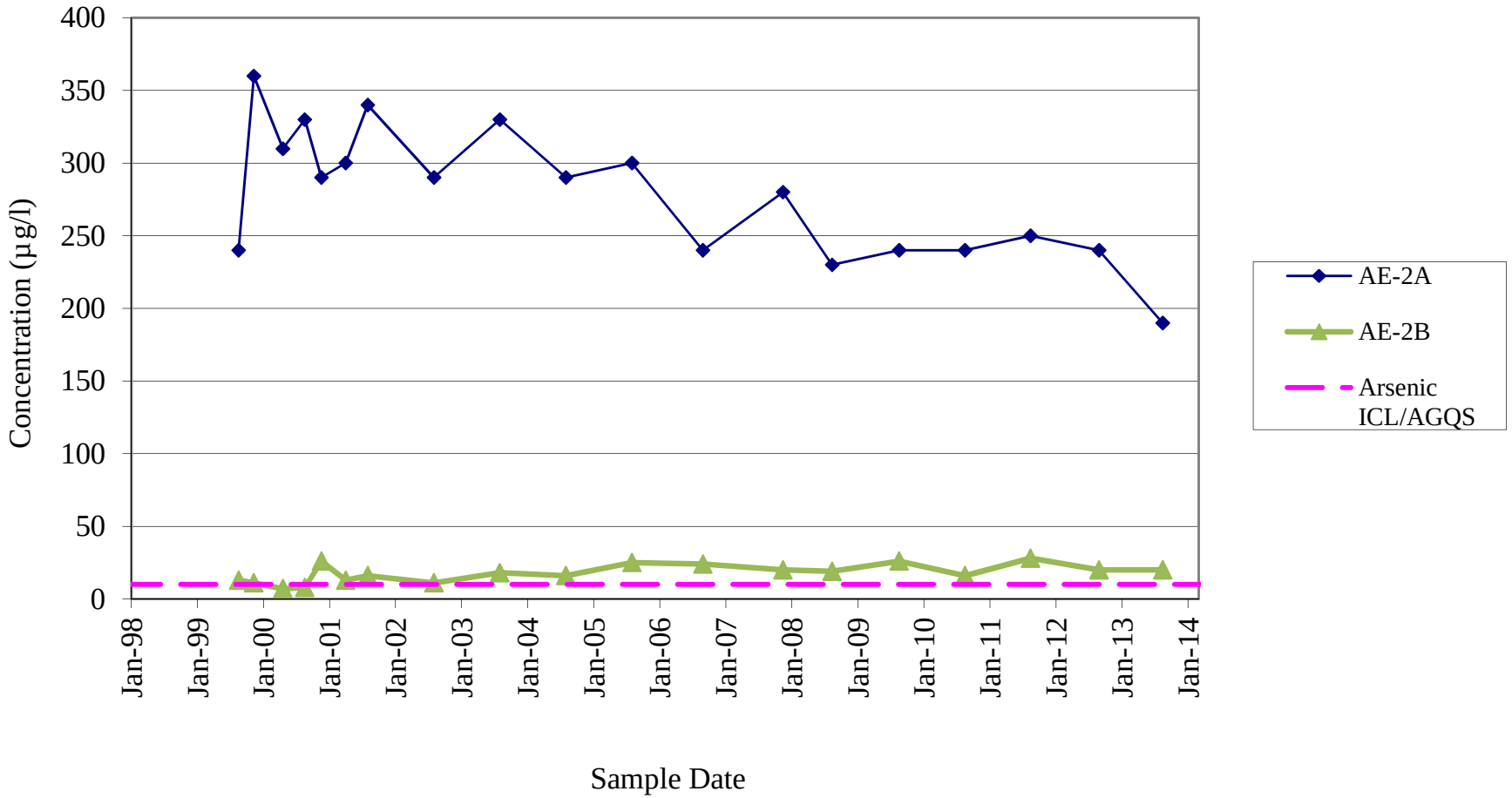
Coakley Landfill, North Hampton, NH



AE-2A & AE-2B

Arsenic Concentrations vs. Time

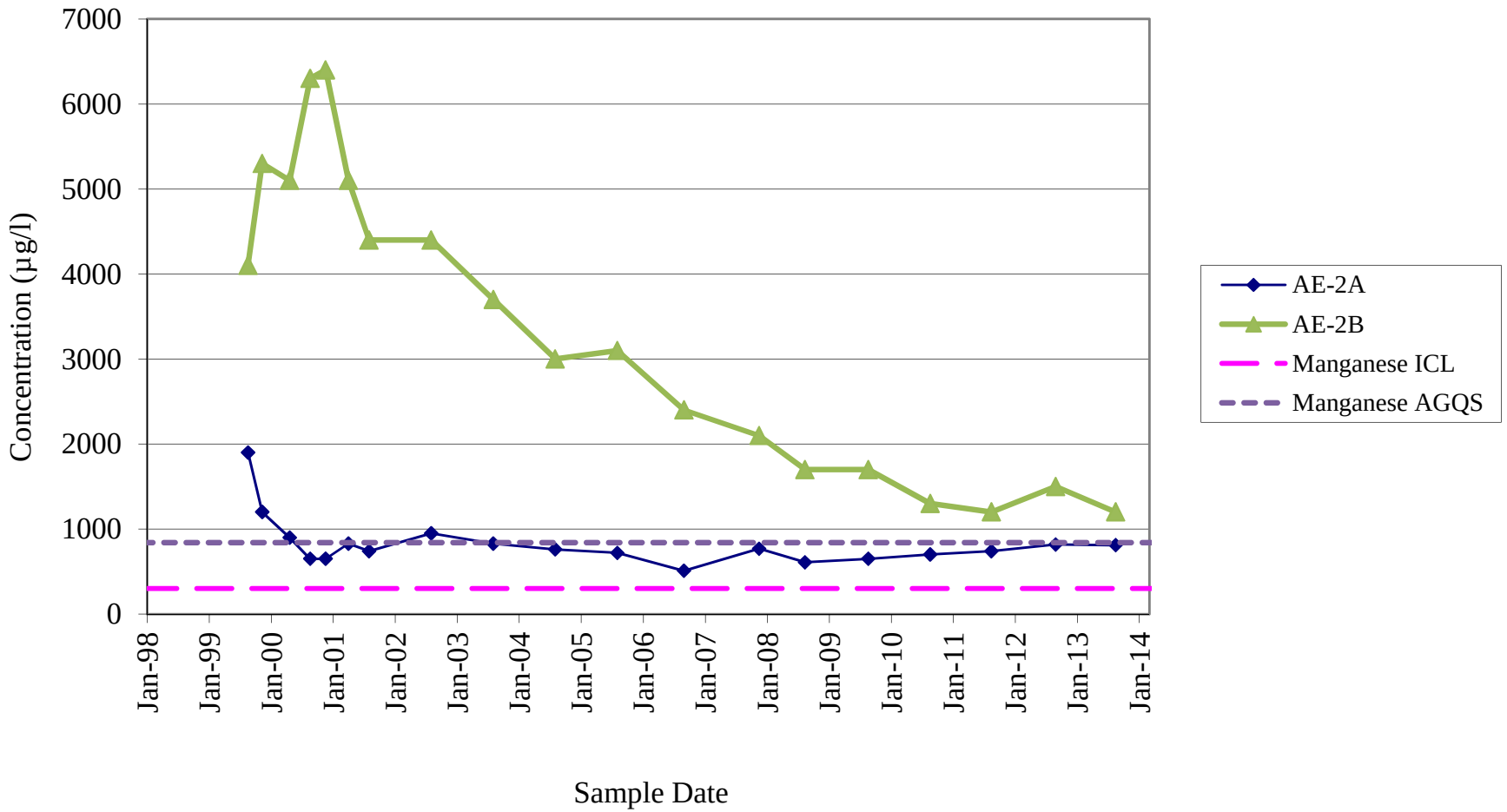
Coakley Landfill, North Hampton, NH



AE-2A & AE-2B

Manganese Concentrations vs. Time

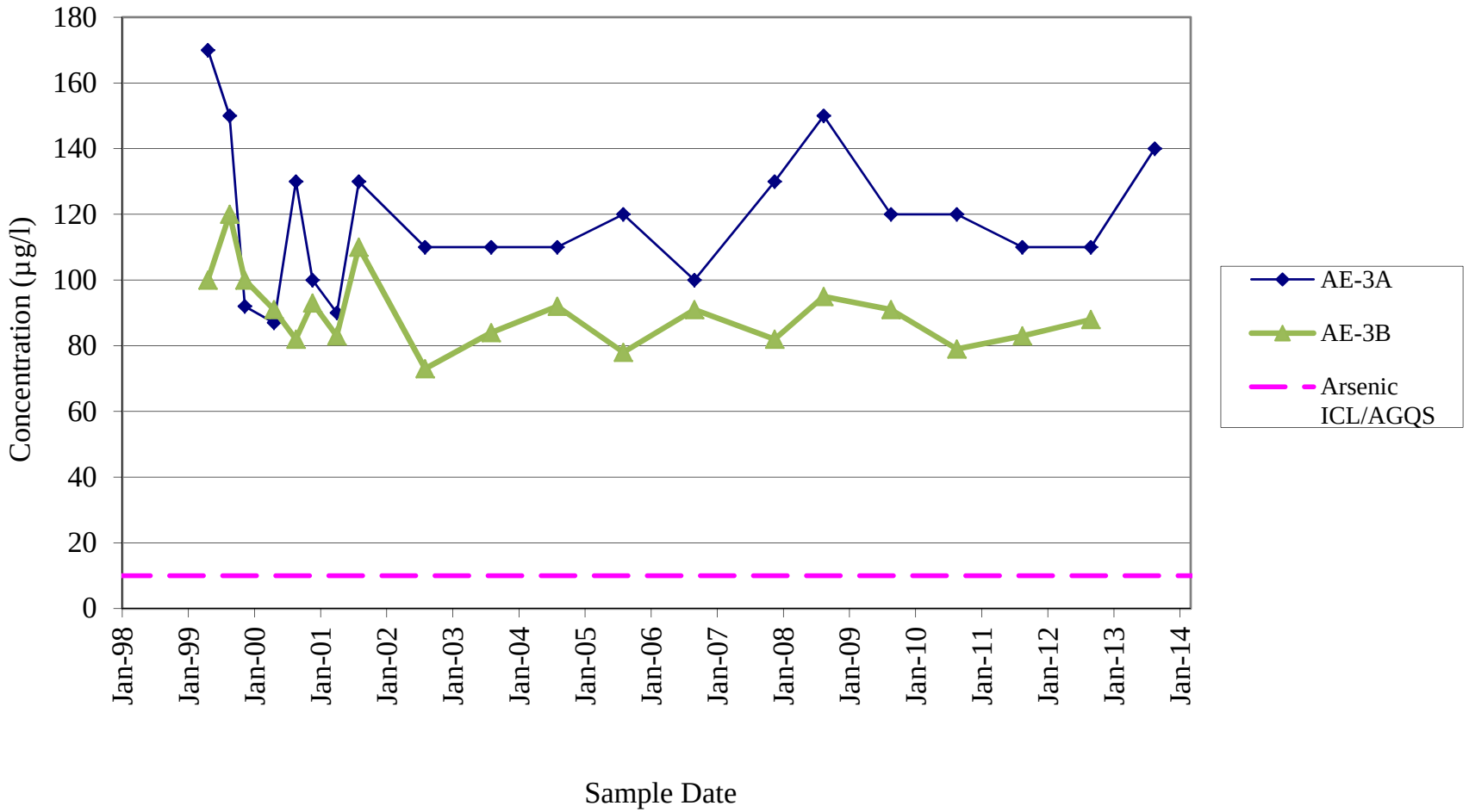
Coakley Landfill, North Hampton, NH



AE-3A & AE-3B

Arsenic Concentrations vs. Time

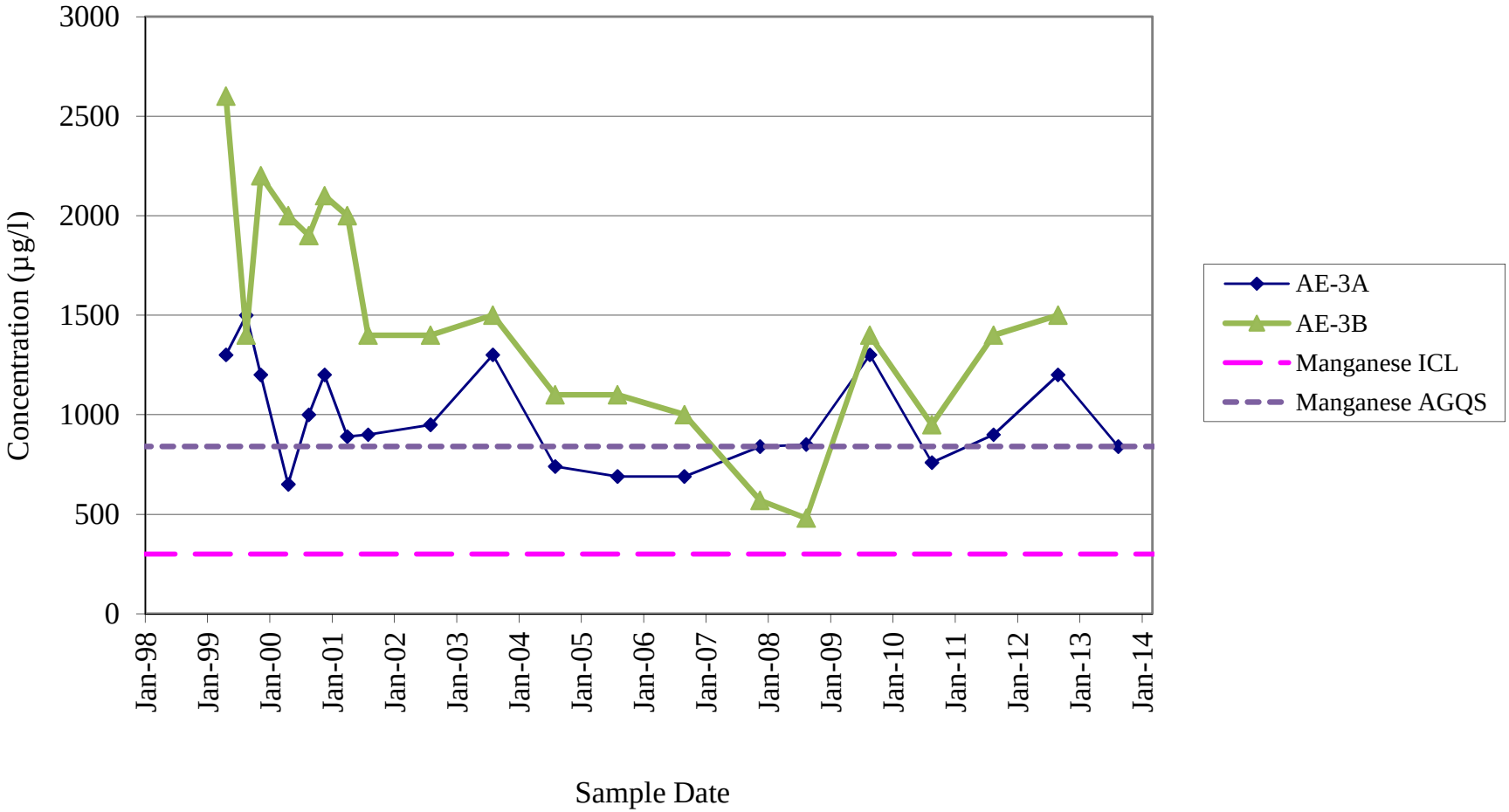
Coakley Landfill, North Hampton, NH

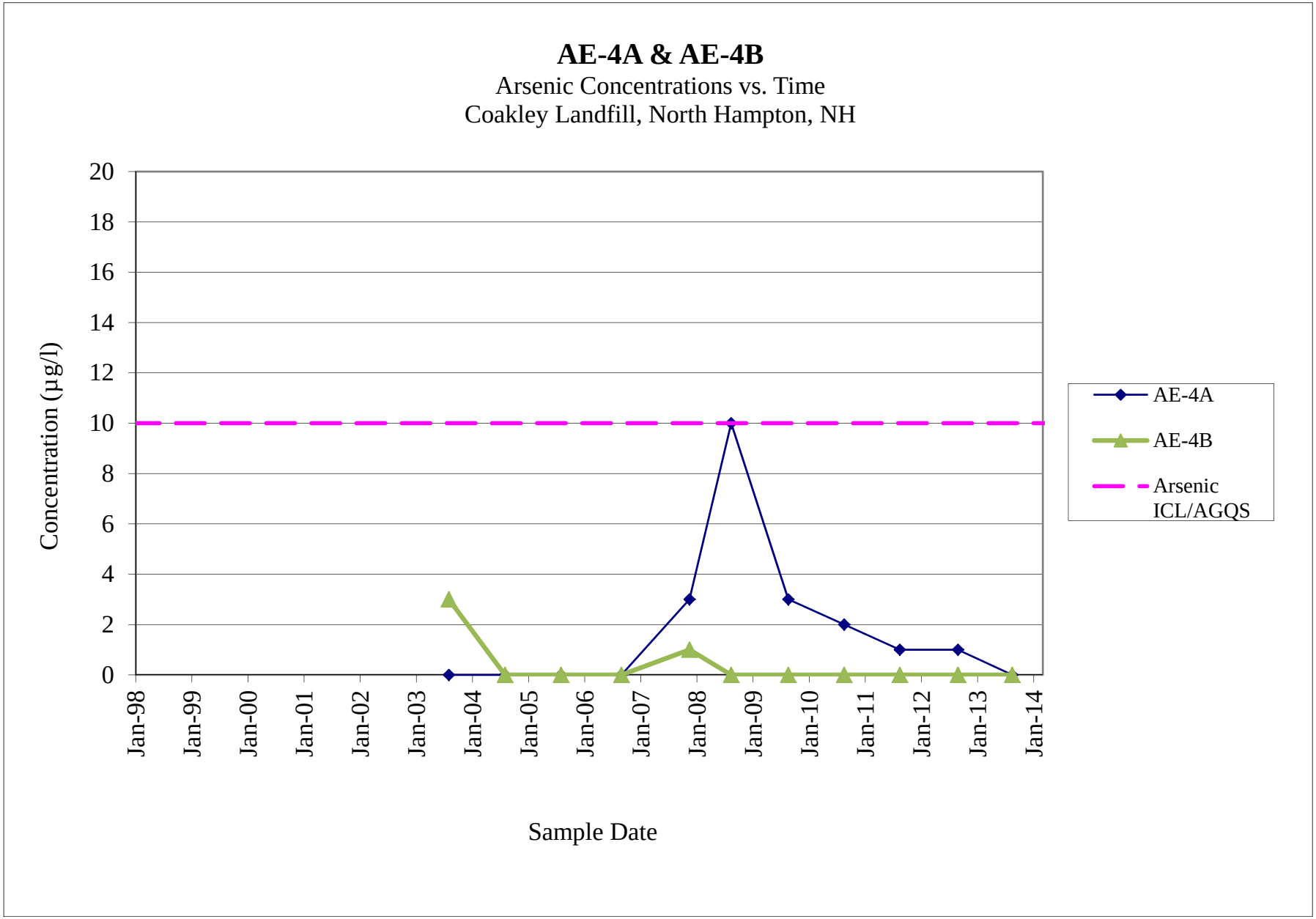


AE-3A & AE-3B

Manganese Concentrations vs. Time

Coakley Landfill, North Hampton, NH

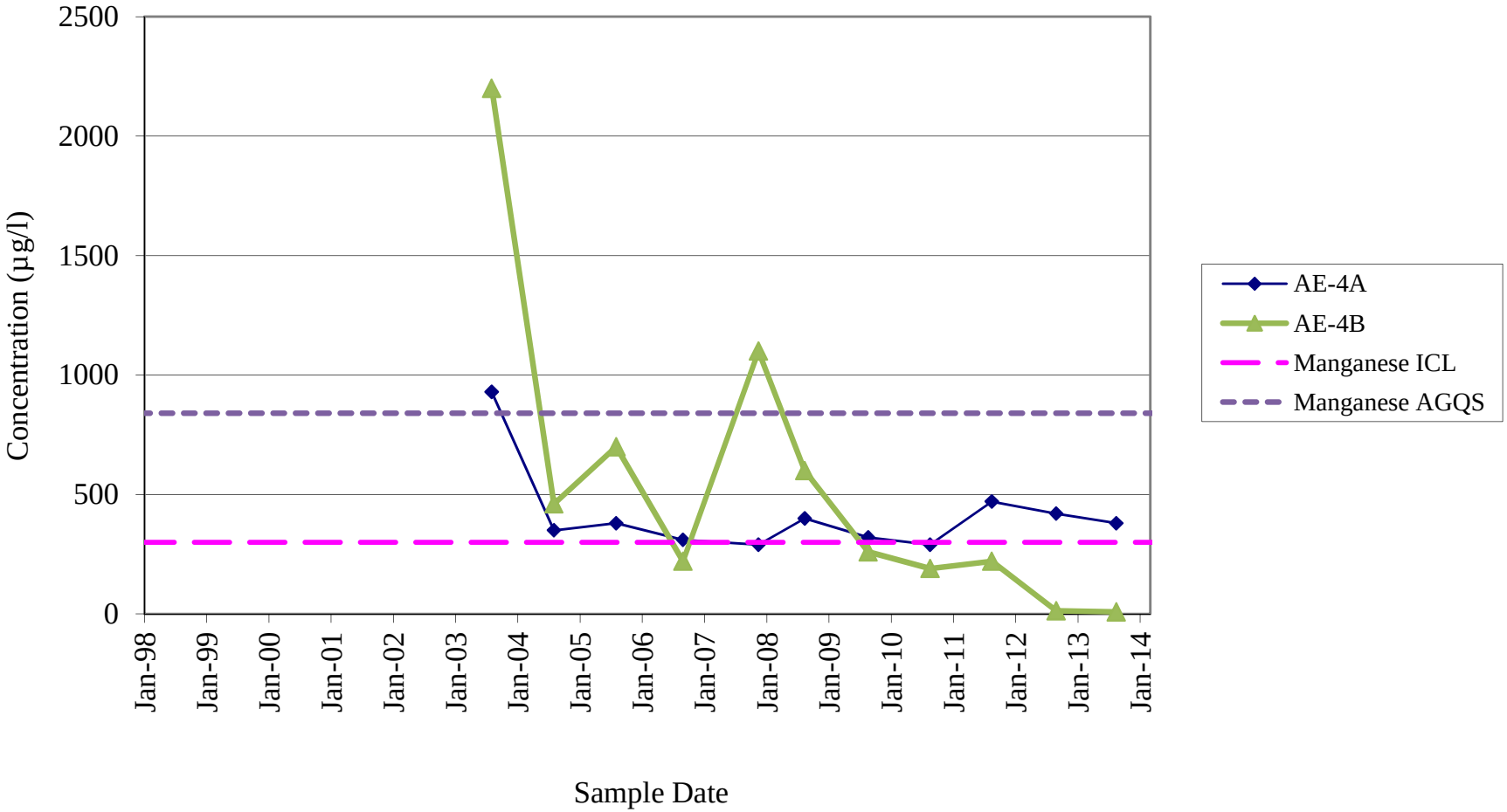



AE-4A & AE-4B
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
20
18
16
14
12
10
8
6
4
2
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Sample Date
AE-4A
AE-4B
Arsenic ICL/AGQS

AE-4A & AE-4B

Manganese Concentrations vs. Time

Coakley Landfill, North Hampton, NH



APPENDIX F

Mann-Kendall Data Evaluation Summary

APPENDIX F

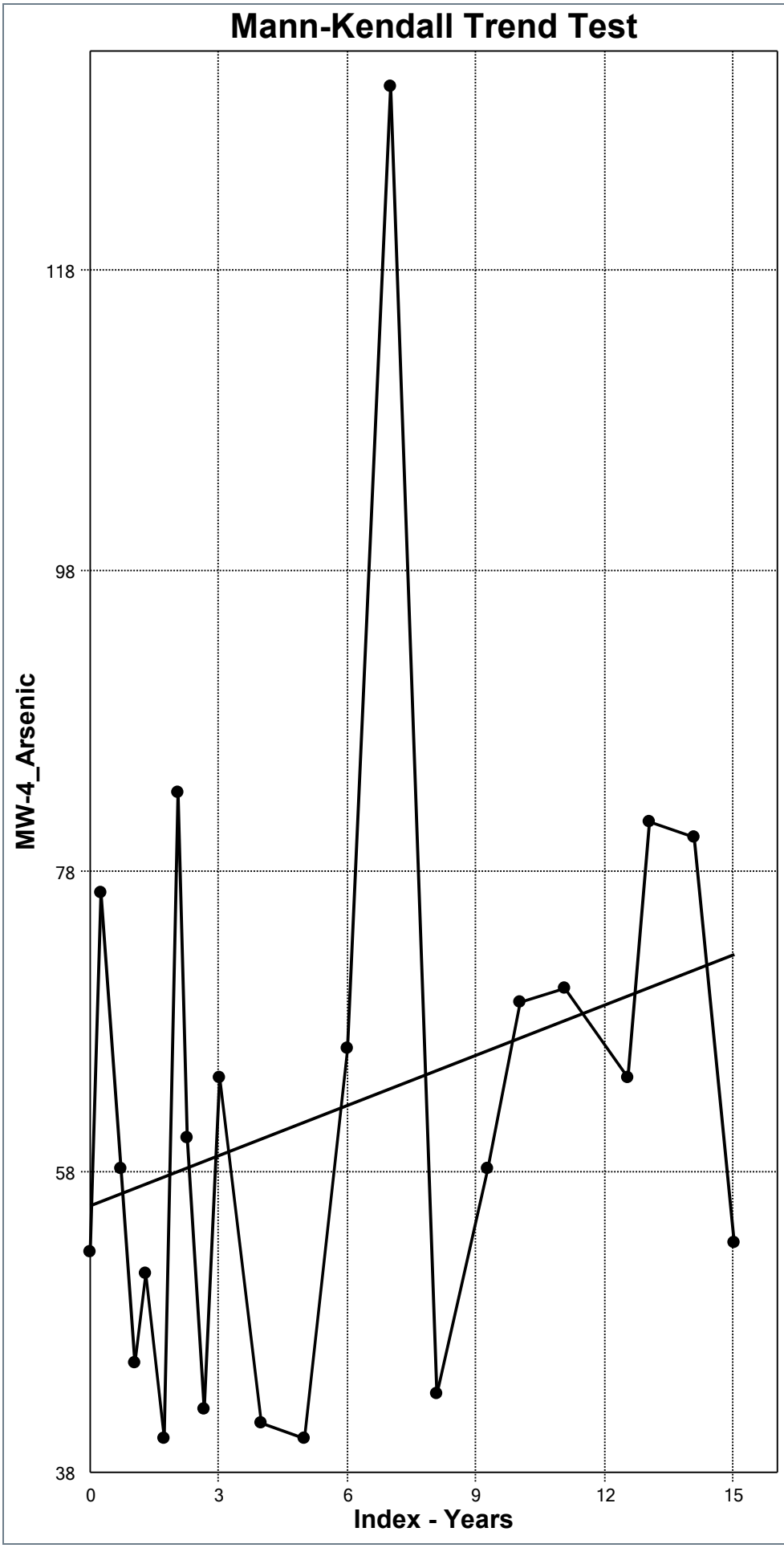
Statistical and Visual Trend Analysis Results

2013 Annual Report - Coakley Landfill, North Hampton, New Hampshire

	1,4-dioxane		Arsenic (total)		Manganese (total)	
Well	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**
MW-4	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**	**No Trend (Not Stable)**	**Stable**
MW-6	Not Detected	Not Detected	NP	NP	**No Trend (Stable)**	**Stable**
MW-9	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**
MW-10	NP / NA	NP / NA	**No Trend (Stable)**	**Stable**	**Decreasing**	**Stable**
OP-2	**No Trend (Stable)**	**Stable**	**Decreasing**	**Stable**	**No Trend (Not Stable)**	**Increasing**
OP-5	NP / NA	NP / NA	**Decreasing**	**Stable**	**Decreasing**	**Stable**
BP-4	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**	**Decreasing**	**Stable**
FPC-5A	NP*	**Stable**	**Increasing**	**Stable**	NP	NP
FPC-6A	NP*	Insufficient Data (Note 4)	**Increasing**	**Increasing**	**Increasing**	**Increasing**
FPC-7A	Not Detected	Not Detected	NP	NP	NP	NP
FPC-8A	NP*	**Stable**	NP	NP	NP	NP
FPC-9A	NP / NA	NP / NA	**Decreasing**	**Stable**	**Decreasing**	**Stable**
AE-1A	NP / NA	NP / NA	**Increasing**	**Stable**	**Increasing**	**Stable**
AE-1B	NP / NA	NP / NA	NP	NP	**No Trend (Stable)**	**Stable**
AE-2A	**No Trend (Stable)**	**Stable**	**Decreasing**	**Decreasing**	**No Trend (Stable)**	**Stable**
AE-2B	**No Trend (Stable)**	**Stable**	**Increasing**	**Stable**	**Decreasing**	**Decreasing**
AE-3A	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**	**No Trend (Stable)**	**Stable**
AE-4A	Not Detected	Not Detected	NP	NP	**No Trend (Stable)**	**Stable**
AE-4B	Not Detected	Not Detected	NP	NP	NP	NP
R-3	NP*	**Stable**	NP / NA	NP / NA	NP / NA	NP / NA
339BHR	NP*	**Stable**	NP / NA	NP / NA	NP / NA	NP / NA
346BHR	Not Detected	Not Detected	NP / NA	NP / NA	NP / NA	NP / NA
415BHR	Not Detected	Not Detected	NP / NA	NP / NA	NP / NA	NP / NA
Trend Tests Completed	7	11	12	14	15	15
Trends Identified	0	0	8	2	7	3
Increasing Trends	0	0	**4**	**1**	**2**	**2**
Decreasing Trends	0	0	**4**	**1**	**5**	**1**
Stable	**7**	**11**	**4**	**11**	**6**	**12**
Not Stable	0	0	0	0	**2**	0

NOTES:

NP	Not Performed, trend analysis not performed because parameter has not recently exceeded USEPA ICL or NHDES AGQS.
NP*	Not Performed, reported concentrations for at least 4 sampling events are required for Mann Kendall statistical analysis.
NP / NA	Parameter not analyzed therefore a trend analysis was not completed.
1.	Wells with screened interval longer than 10 feet were discrete interval sampled in August 2013. Samples collected using the interval sampling method are not comparable to purging sampling methods; therefore, trends analyses were not completed.
2.	Mann Kendall trend analysis completed using 95% confidence interval. Possible outcomes include: No Trend (Stable), No Trend (Not Stable), Increasing or Decreasing. If No Trend and Coefficient of Variation <= 1: No Trend (Stable). If No Trend and Coefficient of Variation is > 1: No Trend (Not Stable)
3.	Visual trend analysis focused on data from last 5 years, in the context of complete data set. Possible outcomes include: Stable, Not Stable, Increasing or Decreasing.
4.	FPC-6A: Insufficient data for visual trend analysis. Data set limited to two events (2012 and 2013).
5.	Trend tests not completed on well interval sampled in August 2013 (MW-5D, MW-5S, MW-8, MW-11, AE-3B, FPC-4B, FPC-5B, FPC-6B, FPC-7B, FPC-8B and GZ-105.



Mann-Kendall Trend Analysis

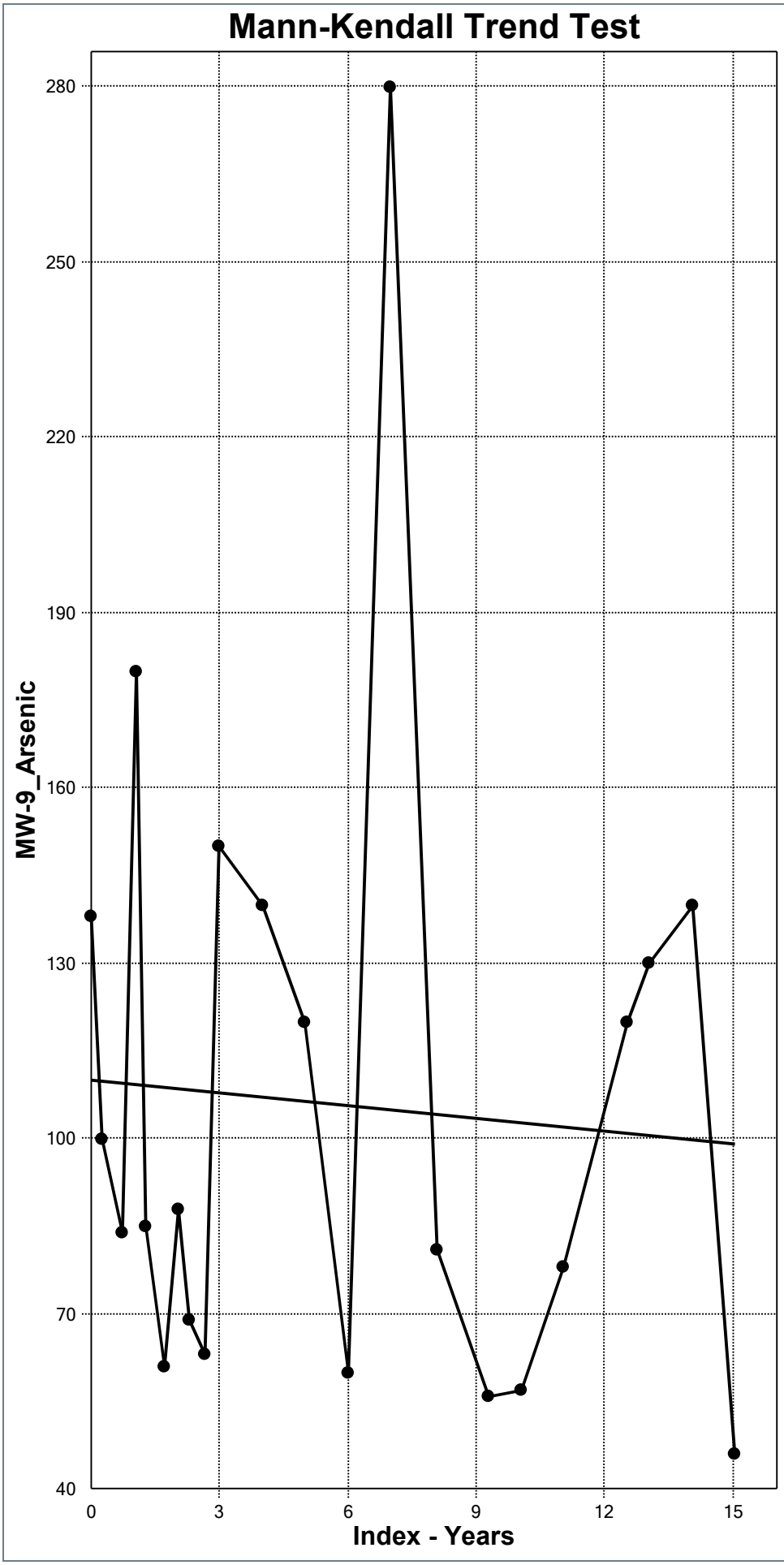
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4213
Standardized Value of S	1.3269
Test Value (S)	48
Tabulated p-value	0.0890
Approximate p-value	0.0923

OLS Regression Line (Blue)

OLS Regression Slope	1.1121
OLS Regression Intercept	55.5412

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.331
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

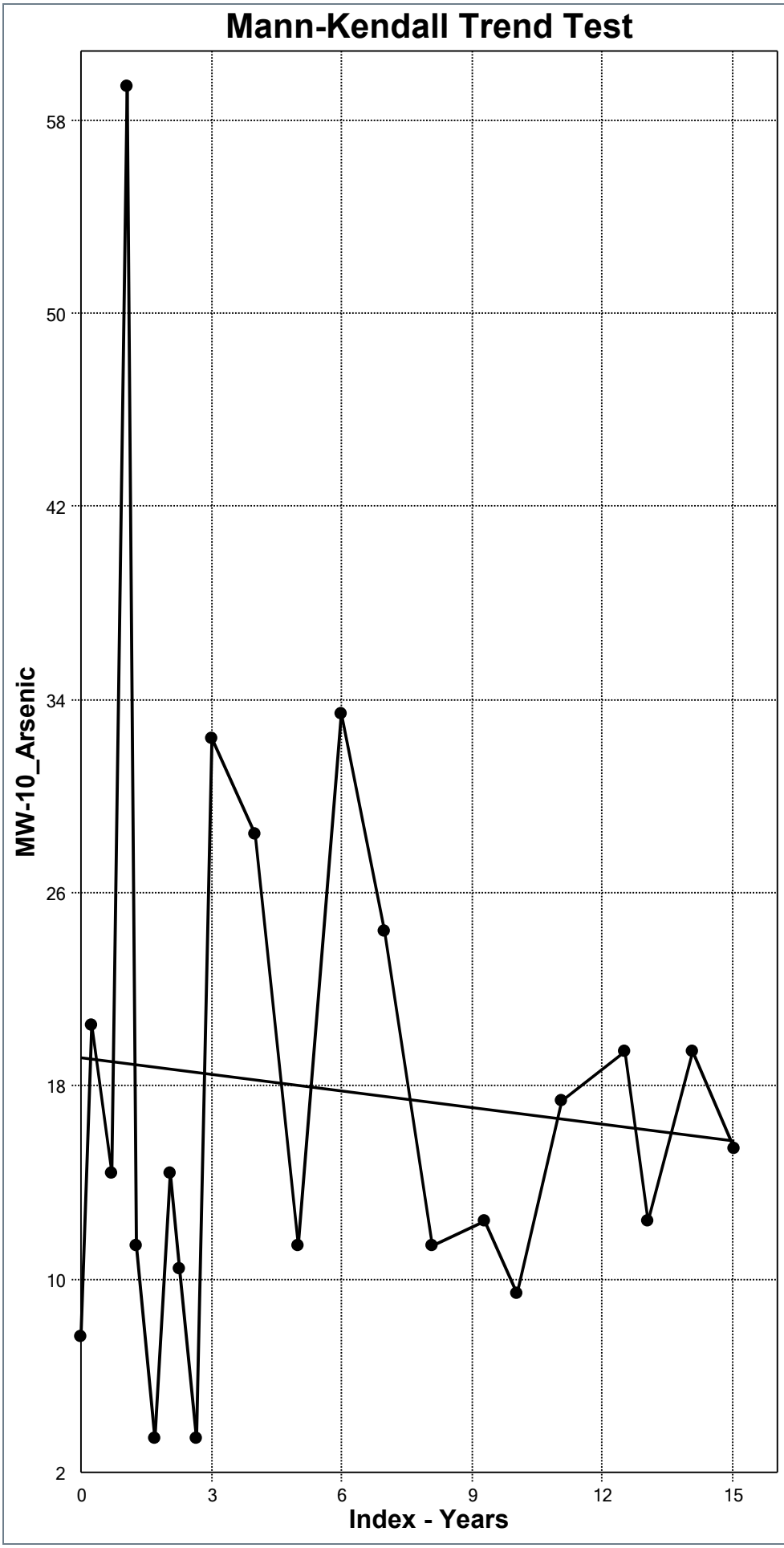
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	-0.9031
Test Value (S)	-33
Tabulated p-value	0.1860
Approximate p-value	0.1832

OLS Regression Line (Blue)

OLS Regression Slope	-0.7101
OLS Regression Intercept	109.9209

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.508
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

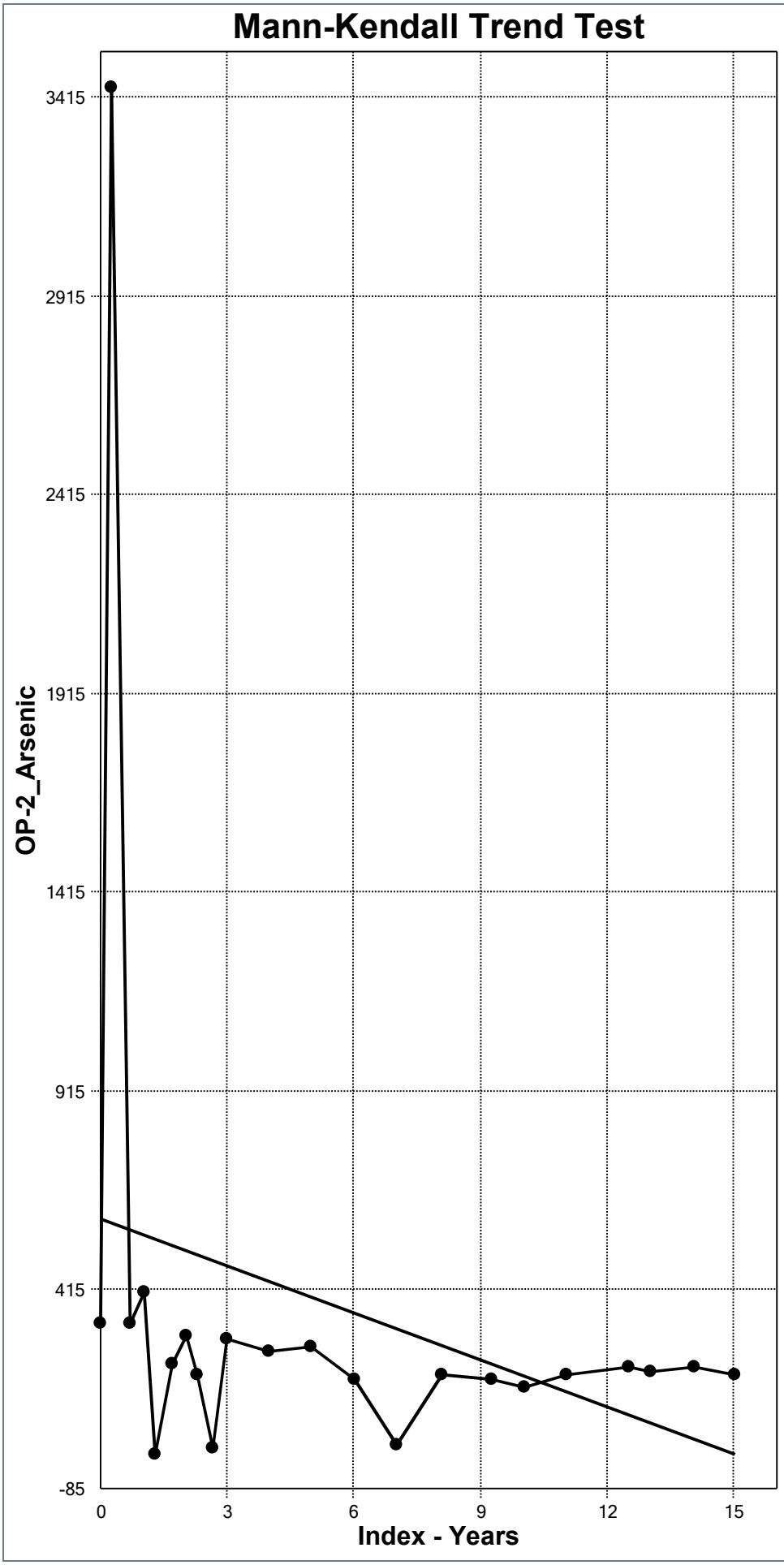
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3553
Standardized Value of S	0.4808
Test Value (S)	18
Tabulated p-value	0.3080
Approximate p-value	0.3153

OLS Regression Line (Blue)

OLS Regression Slope	-0.2272
OLS Regression Intercept	18.7672

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.710
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

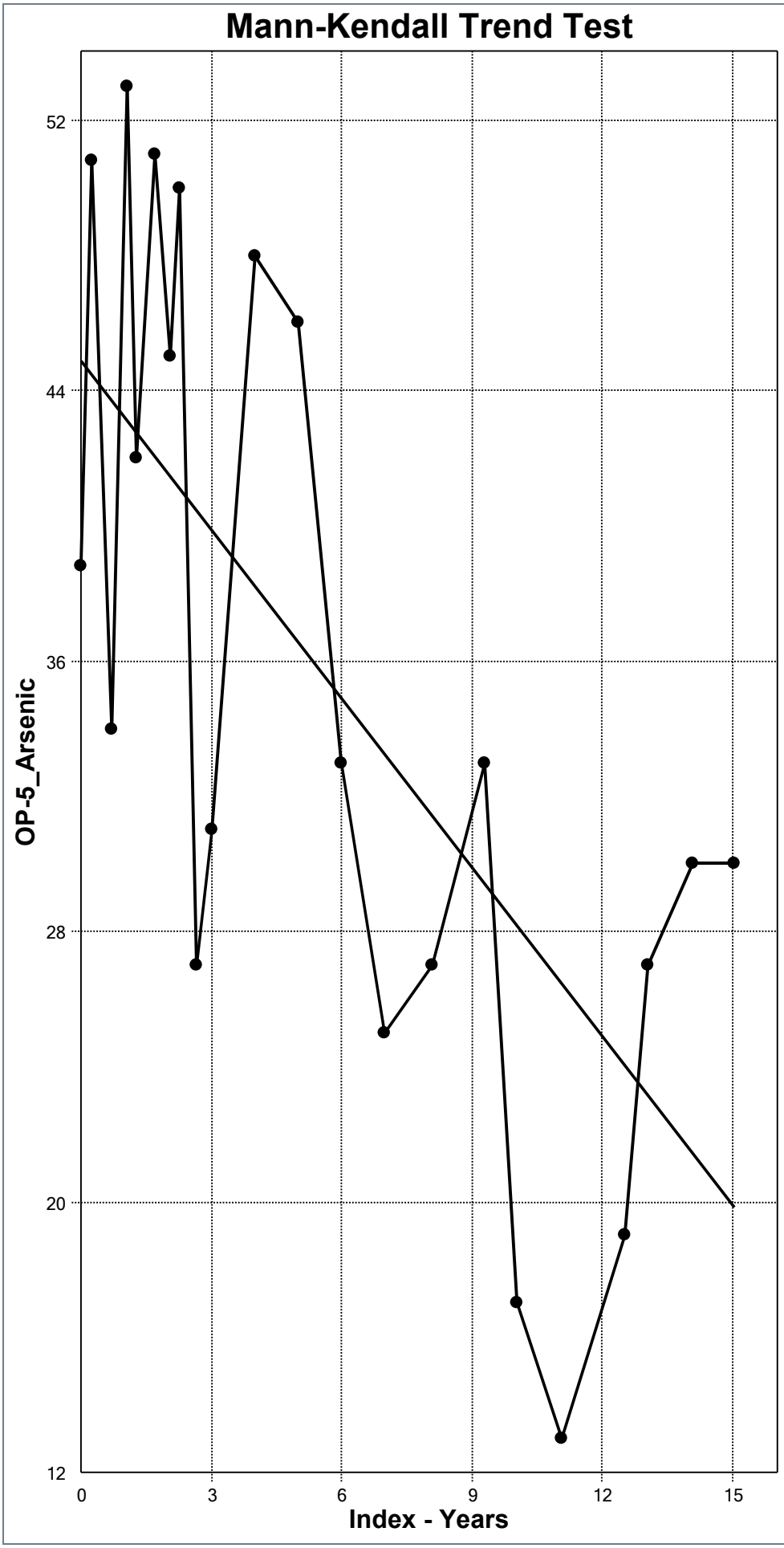
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.2987
Standardized Value of S	-2.0114
Test Value (S)	-72
Tabulated p-value	0.0210
Approximate p-value	0.0221

OLS Regression Line (Blue)

OLS Regression Slope	-39.3910
OLS Regression Intercept	592.3506

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 1.935
DECREASING



Mann-Kendall Trend Analysis

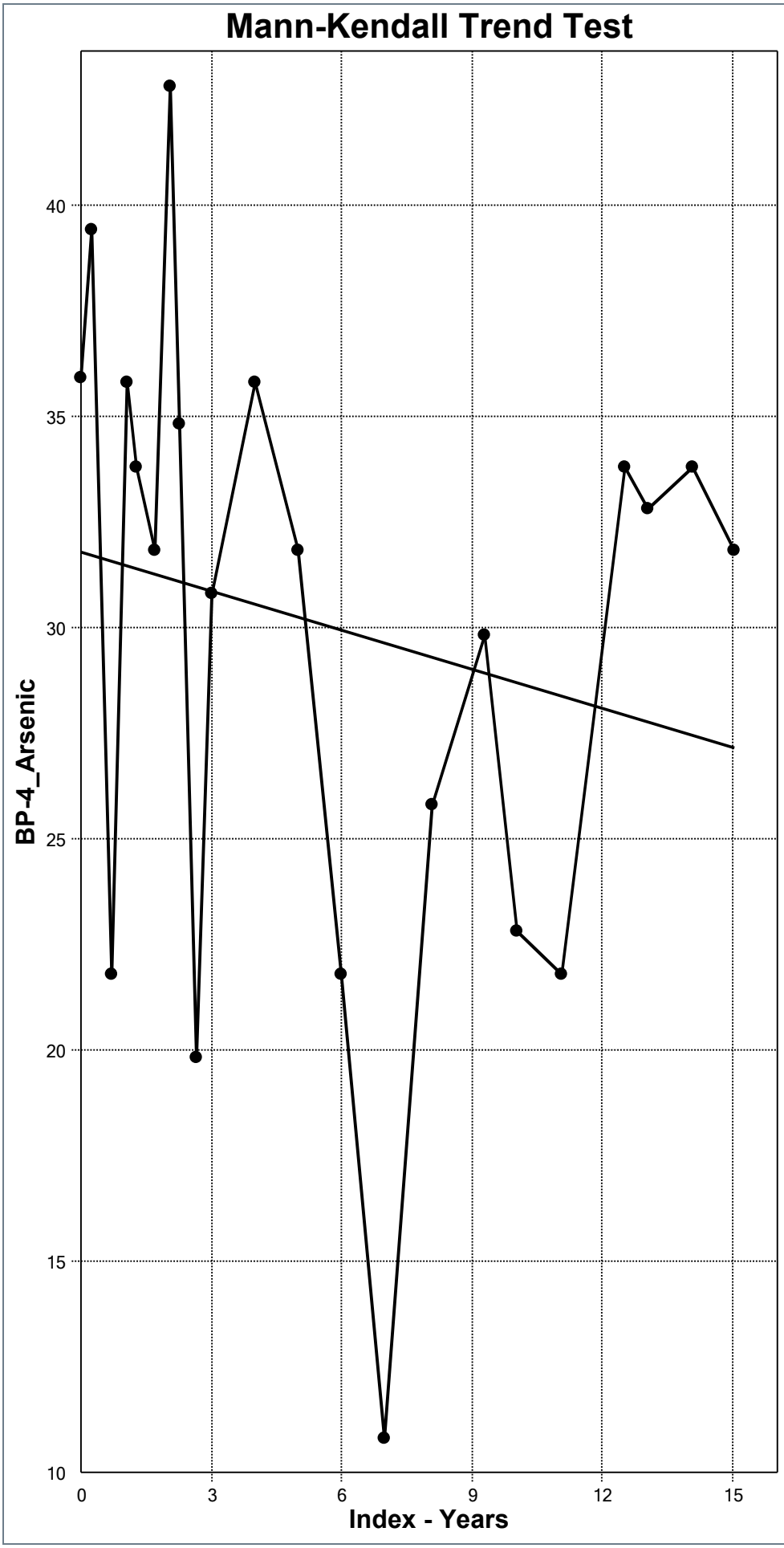
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3836
Standardized Value of S	-3.1370
Test Value (S)	-112
Tabulated p-value	0.0010
Approximate p-value	0.0009

OLS Regression Line (Blue)

OLS Regression Slope	-1.6664
OLS Regression Intercept	44.8892

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.338
DECREASING



Mann-Kendall Trend Analysis

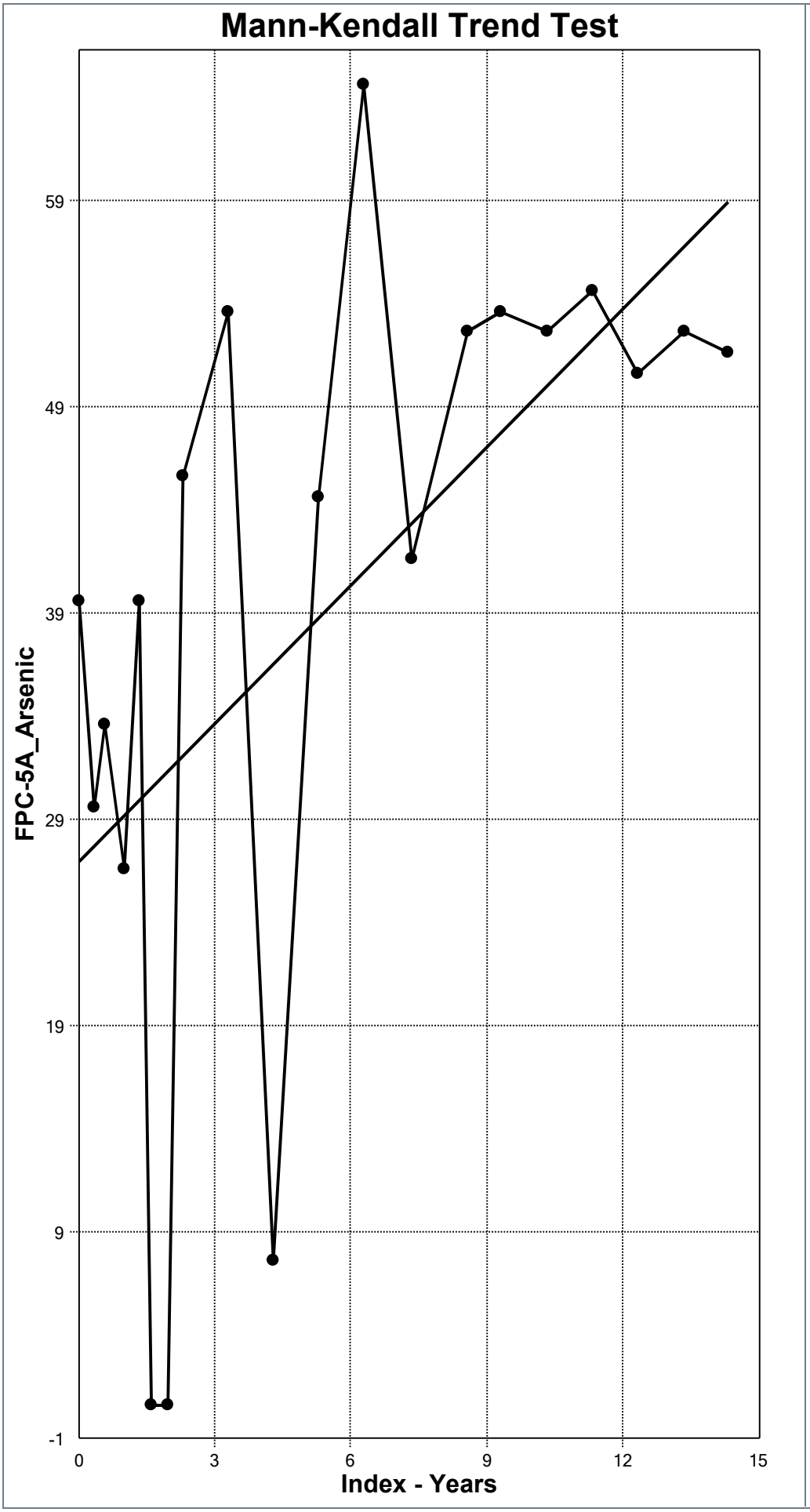
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.2940
Standardized Value of S	-1.5300
Test Value (S)	-55
Tabulated p-value	0.0640
Approximate p-value	0.0630

OLS Regression Line (Blue)

OLS Regression Slope	-0.3085
OLS Regression Intercept	31.9940

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.249
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

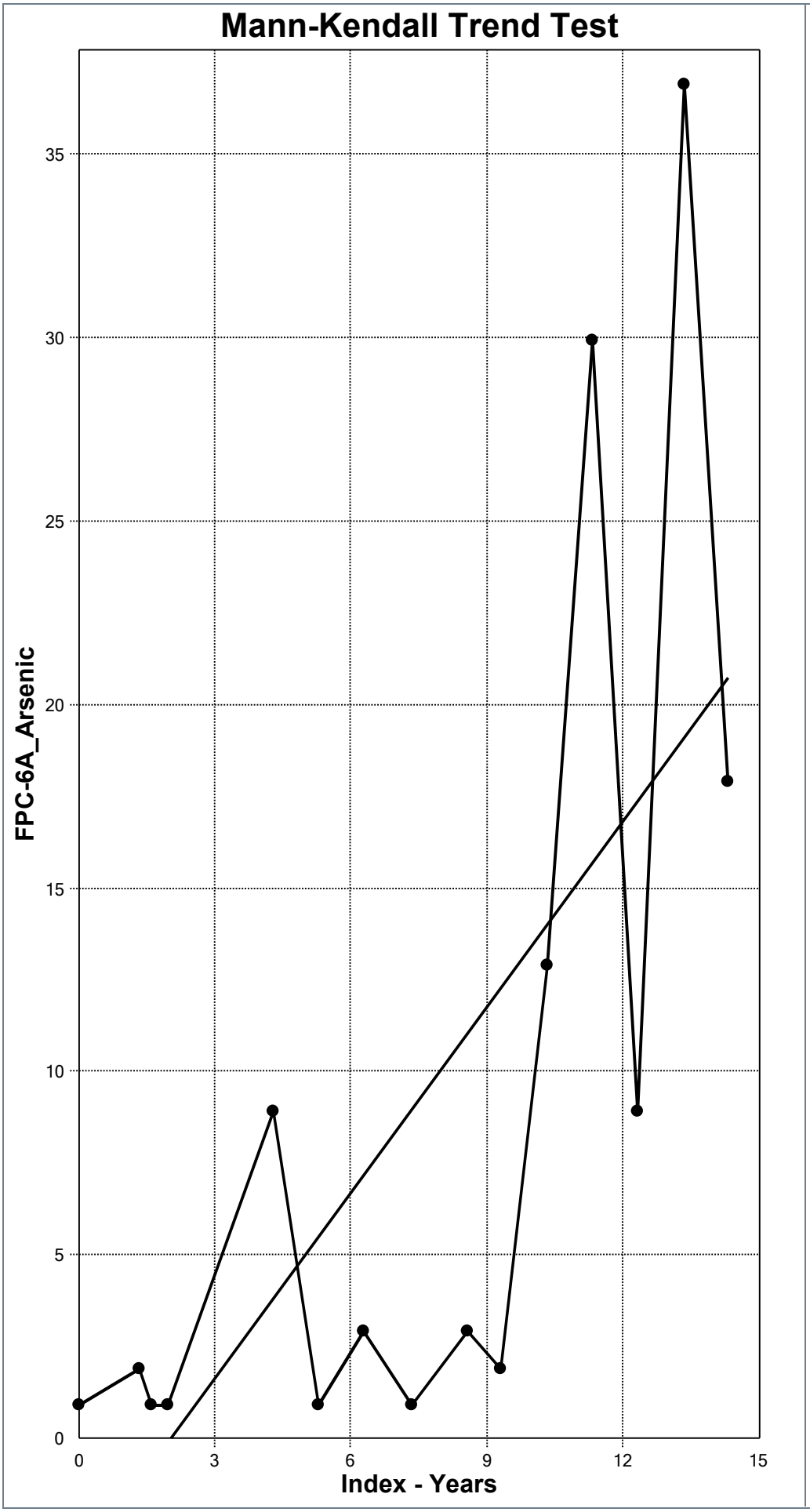
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.7137
Standardized Value of S	2.5721
Test Value (S)	80
Tabulated p-value	0.0050
Approximate p-value	0.0051

OLS Regression Line (Blue)

OLS Regression Slope	2.2282
OLS Regression Intercept	27.3710

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.458
INCREASING



Mann-Kendall Trend Analysis

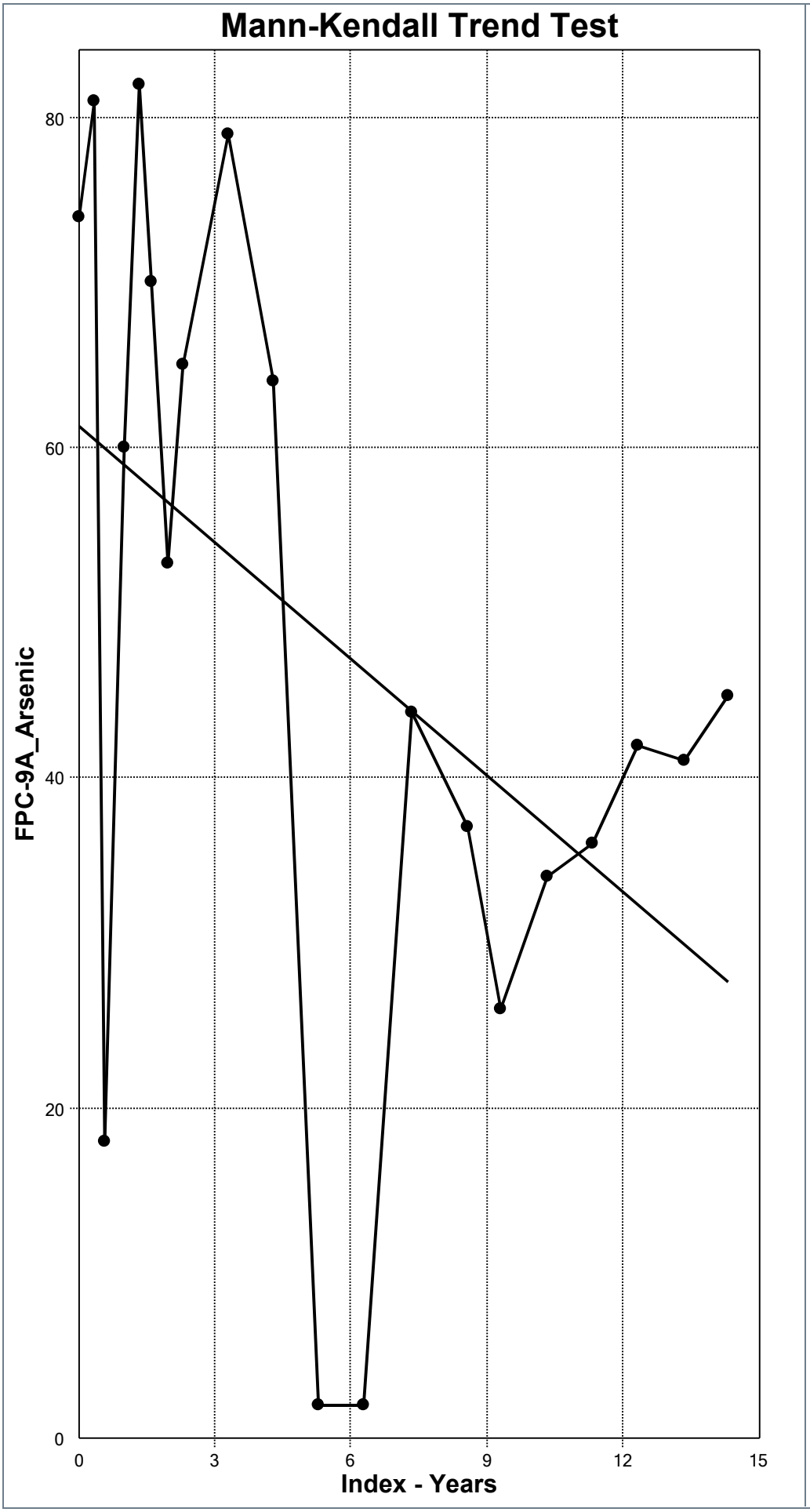
n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	19.7146
Standardized Value of S	2.9927
Test Value (S)	60
Tabulated p-value	0.0010
Approximate p-value	0.0014

OLS Regression Line (Blue)

OLS Regression Slope	1.6881
OLS Regression Intercept	-3.3867

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 1.302
INCREASING



Mann-Kendall Trend Analysis

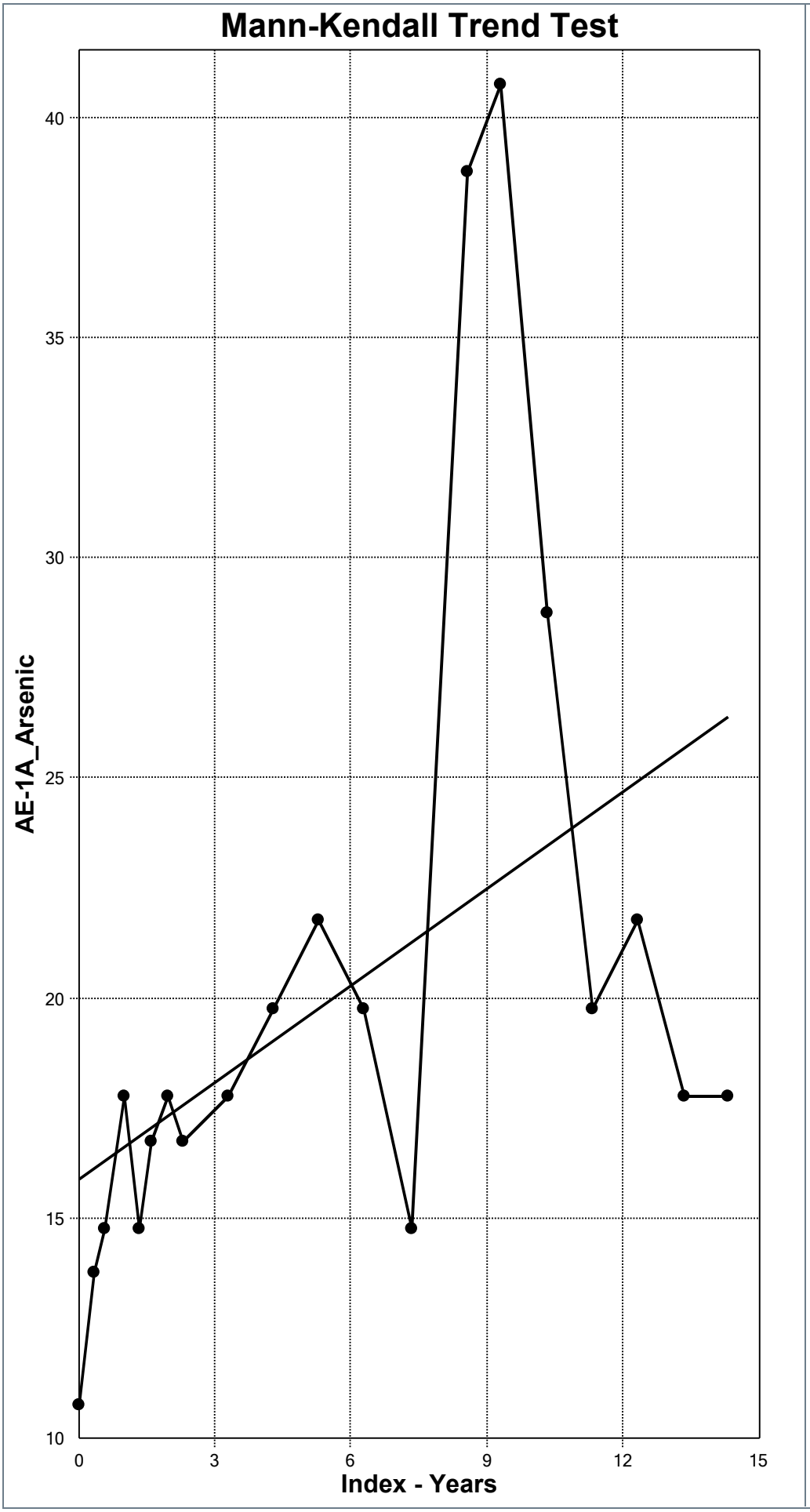
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.8058
Standardized Value of S	-2.0126
Test Value (S)	-63
Tabulated p-value	0.0230
Approximate p-value	0.0221

OLS Regression Line (Blue)

OLS Regression Slope	-2.3441
OLS Regression Intercept	61.2464

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.510
DECREASING



Mann-Kendall Trend Analysis

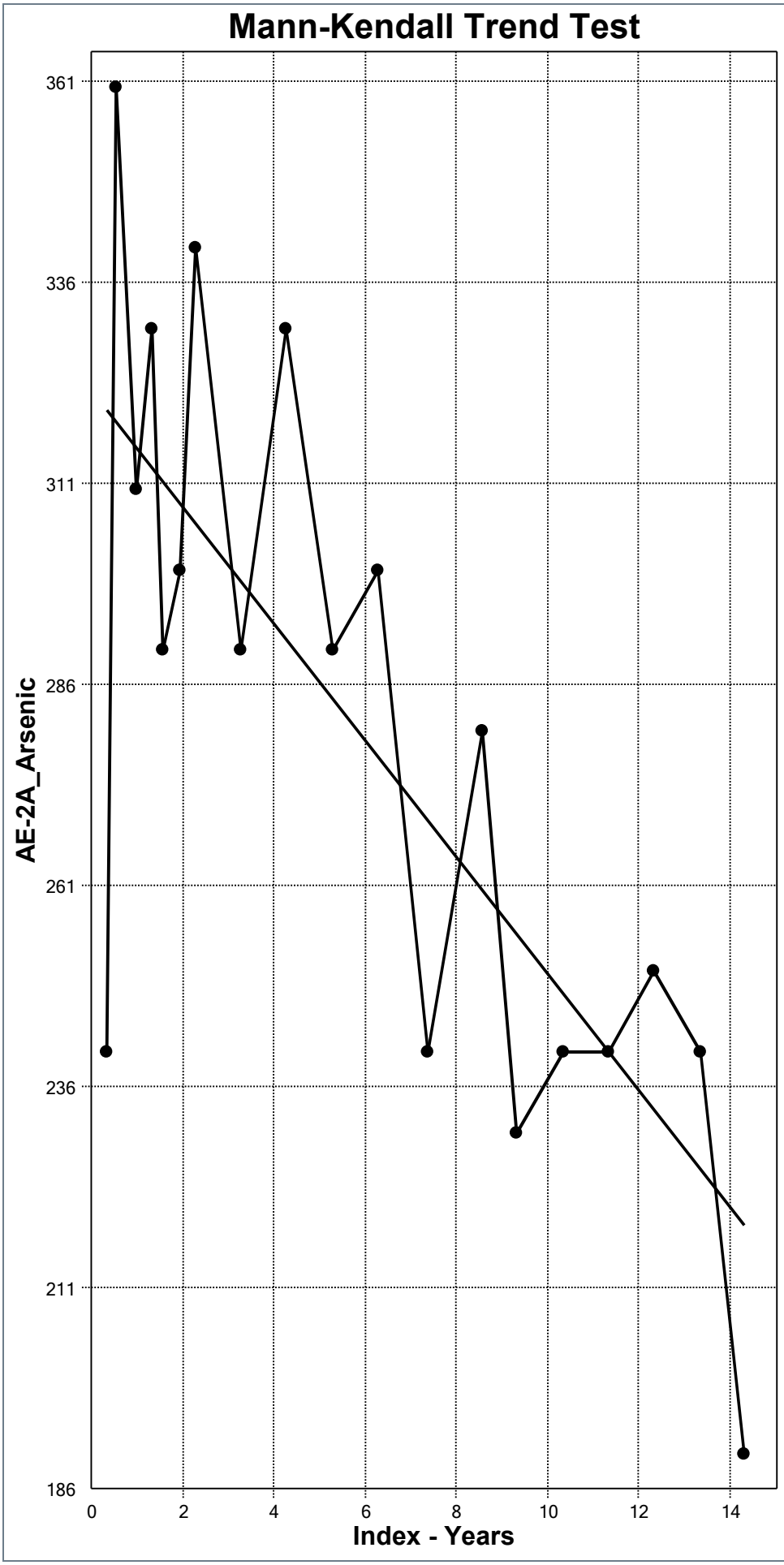
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.3974
Standardized Value of S	3.1253
Test Value (S)	96
Tabulated p-value	0.0010
Approximate p-value	0.0009

OLS Regression Line (Blue)

OLS Regression Slope	0.7341
OLS Regression Intercept	16.1233

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.377
INCREASING



Mann-Kendall Trend Analysis

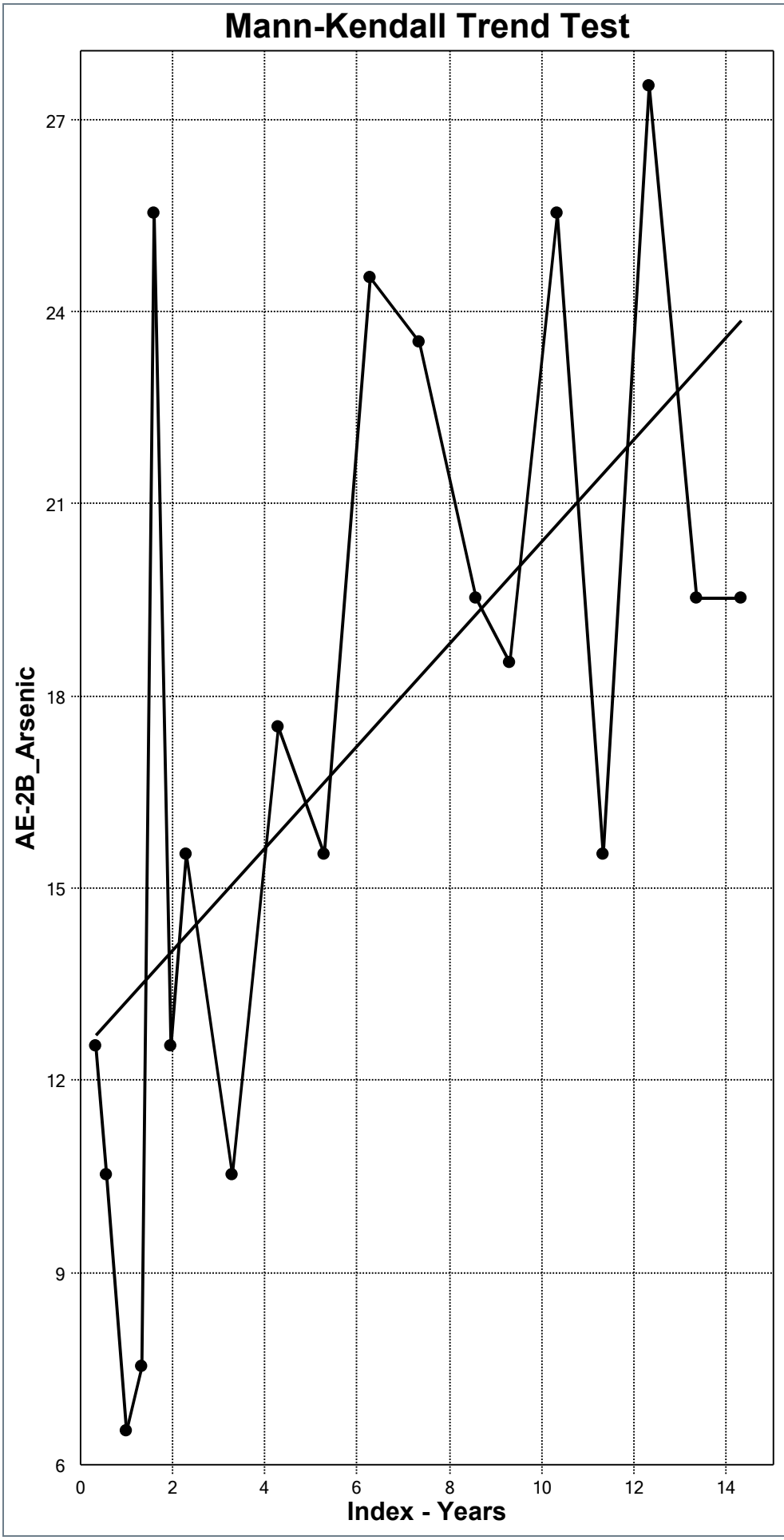
n	19
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.1898
Standardized Value of S	-3.1572
Test Value (S)	-90
Tabulated p-value	0.0010
Approximate p-value	0.0008

OLS Regression Line (Blue)

OLS Regression Slope	-7.2421
OLS Regression Intercept	322.3134

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.162
DECREASING



Mann-Kendall Trend Analysis

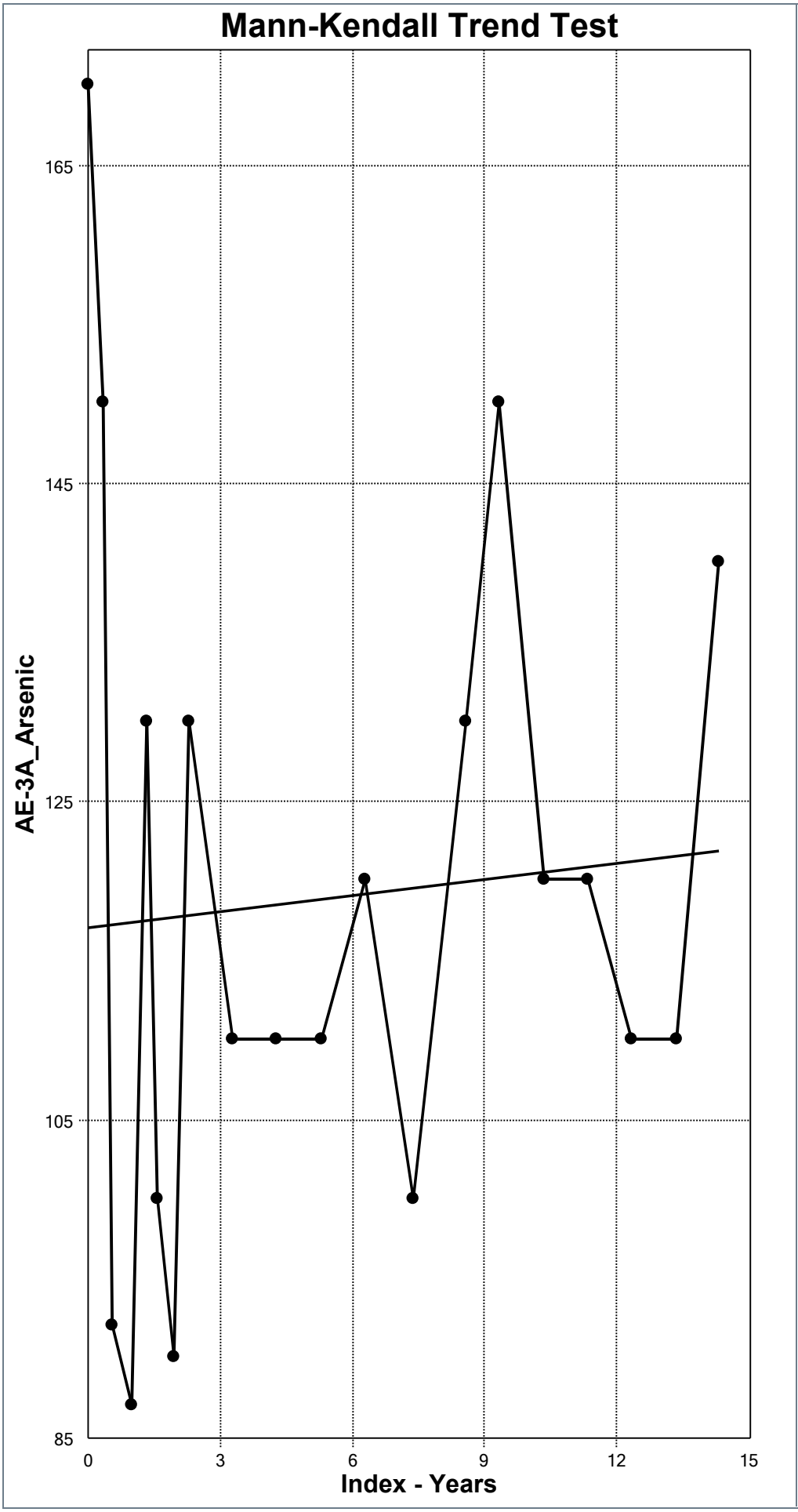
n	19
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.4019
Standardized Value of S	2.7815
Test Value (S)	80
Tabulated p-value	0.0020
Approximate p-value	0.0027

OLS Regression Line (Blue)

OLS Regression Slope	0.7972
OLS Regression Intercept	12.9052

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.353
INCREASING



Mann-Kendall Trend Analysis

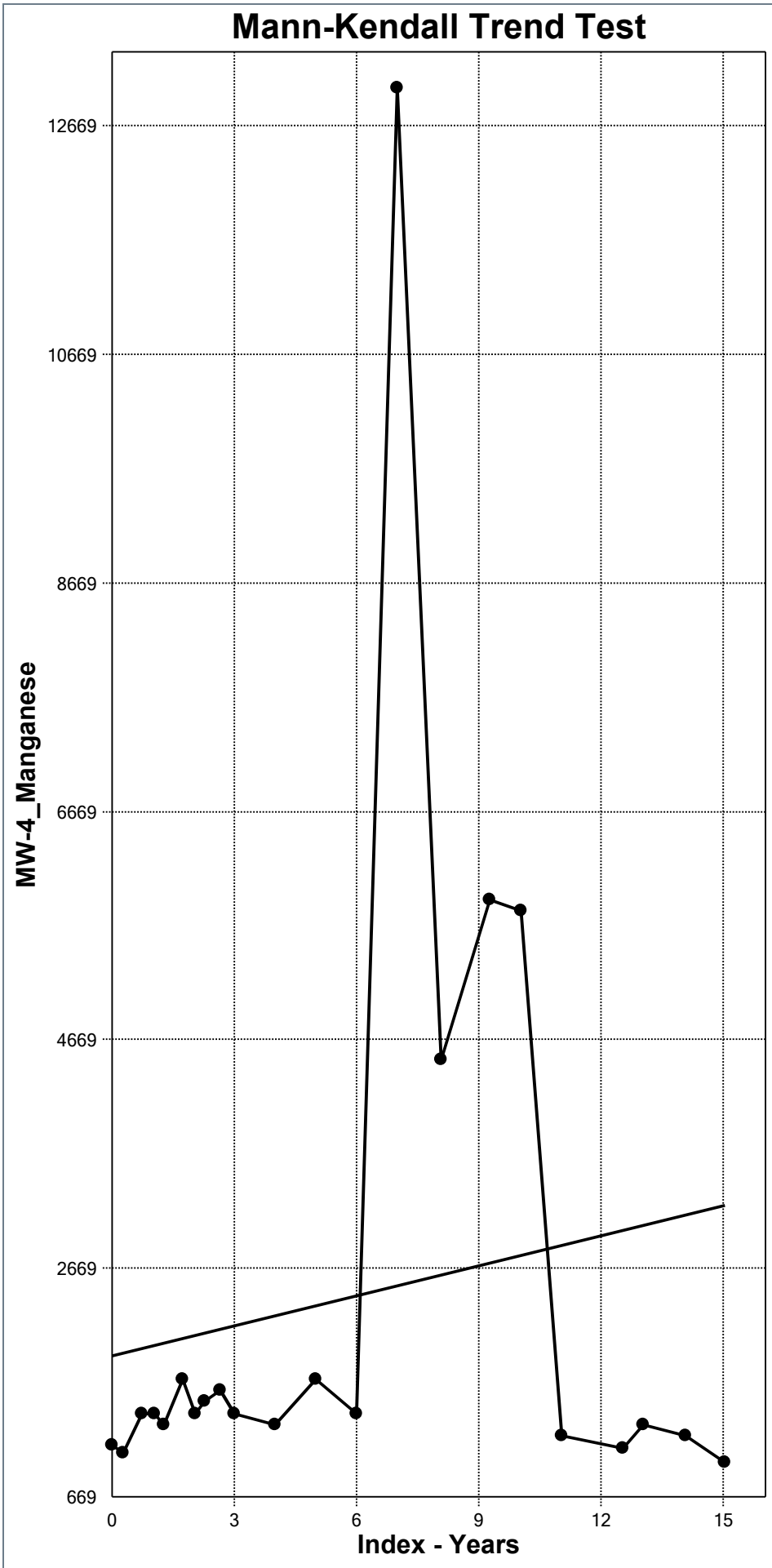
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.3974
Standardized Value of S	0.4935
Test Value (S)	16
Tabulated p-value	0.3150
Approximate p-value	0.3108

OLS Regression Line (Blue)

OLS Regression Slope	0.3389
OLS Regression Intercept	116.9985

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.710
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

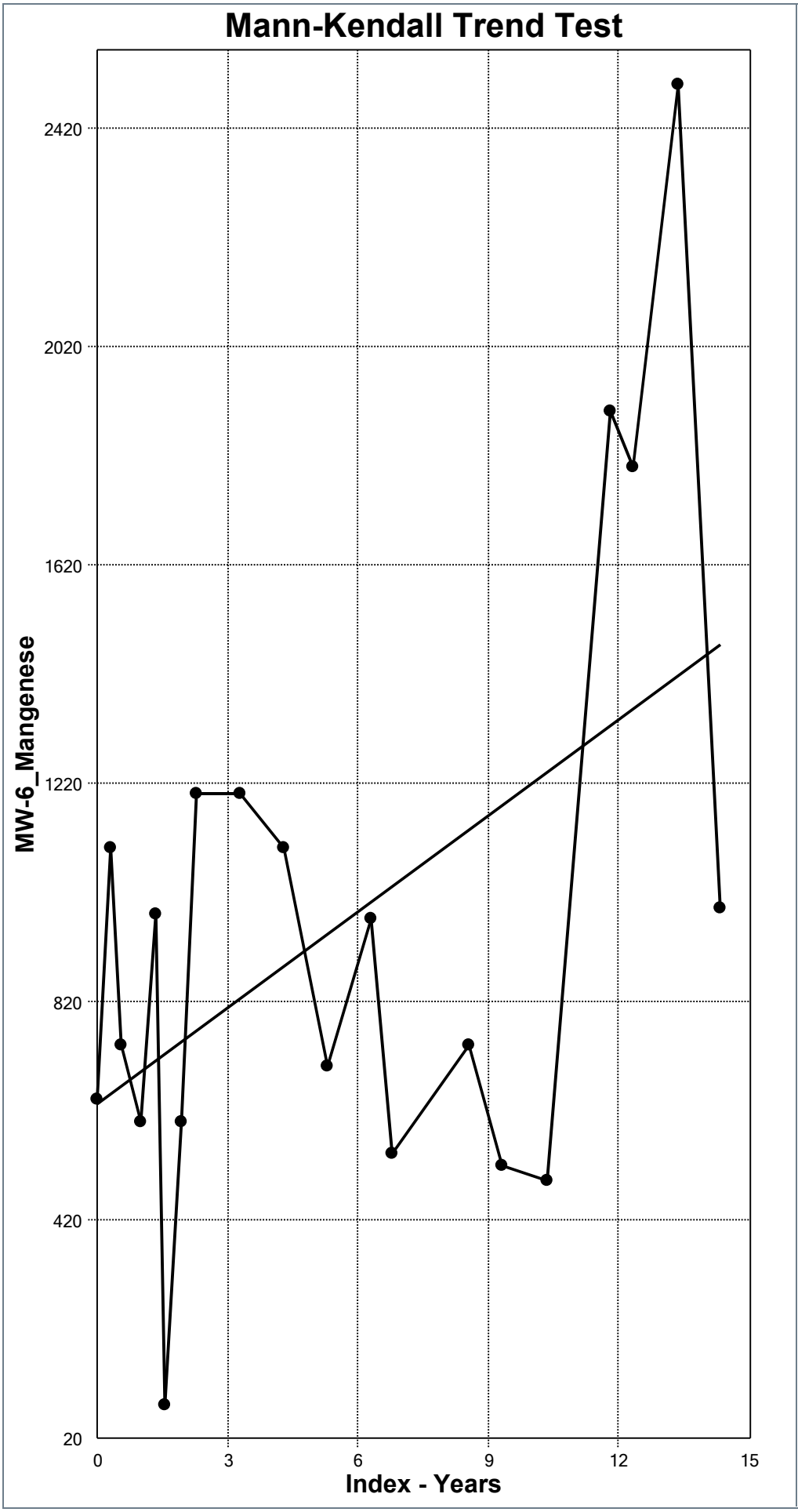
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.1473
Standardized Value of S	0.0854
Test Value (S)	4
Tabulated p-value	0.4560
Approximate p-value	0.4660

OLS Regression Line (Blue)

OLS Regression Slope	87.5748
OLS Regression Intercept	1,902.1712

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 1.146
CV > 1 No Trend Not Stable



Mann-Kendall Trend Analysis

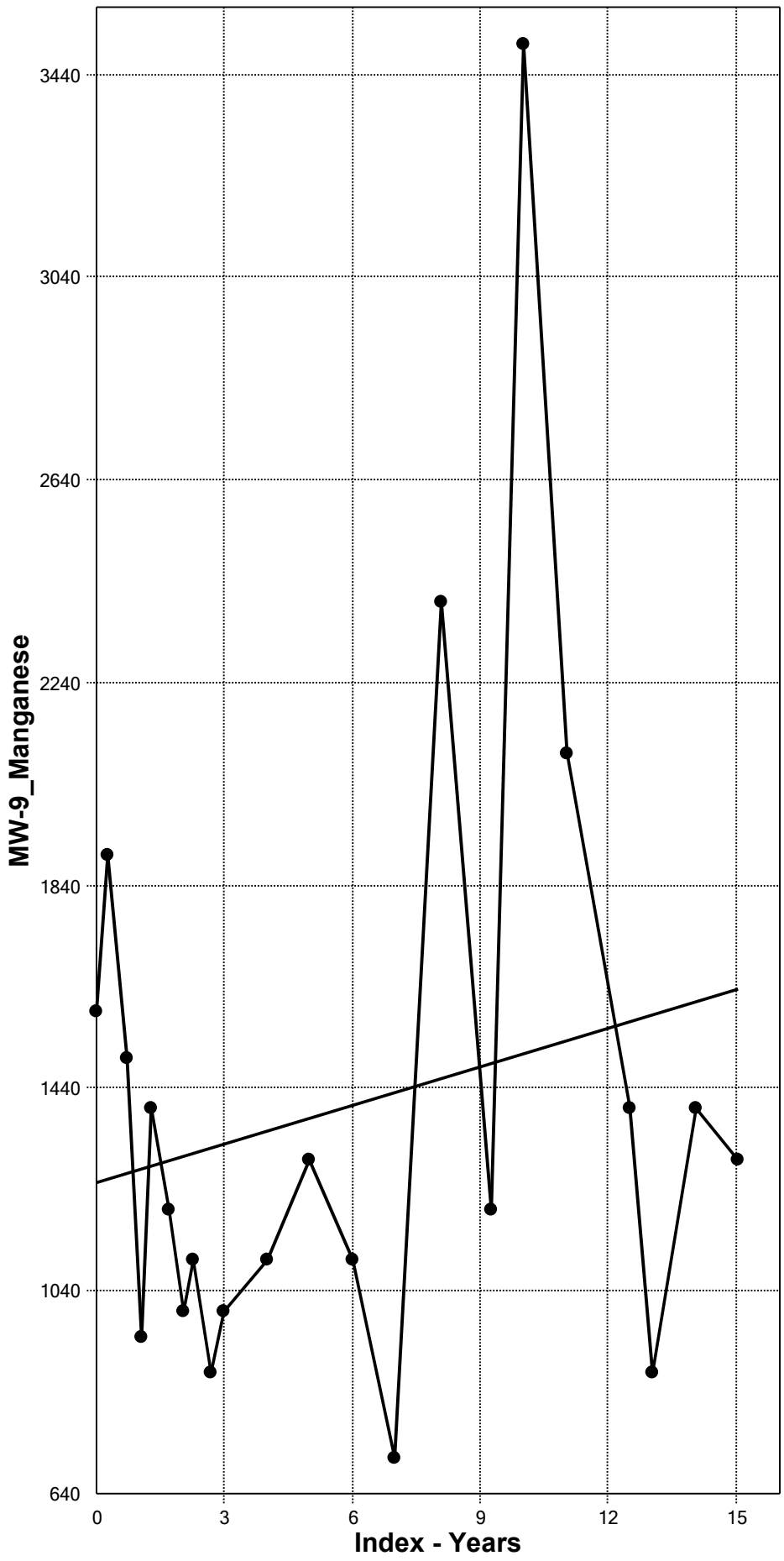
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.7571
Standardized Value of S	0.8778
Test Value (S)	28
Tabulated p-value	0.1930
Approximate p-value	0.1900

OLS Regression Line (Blue)

OLS Regression Slope	58.8435
OLS Regression Intercept	630.9647

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.580
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

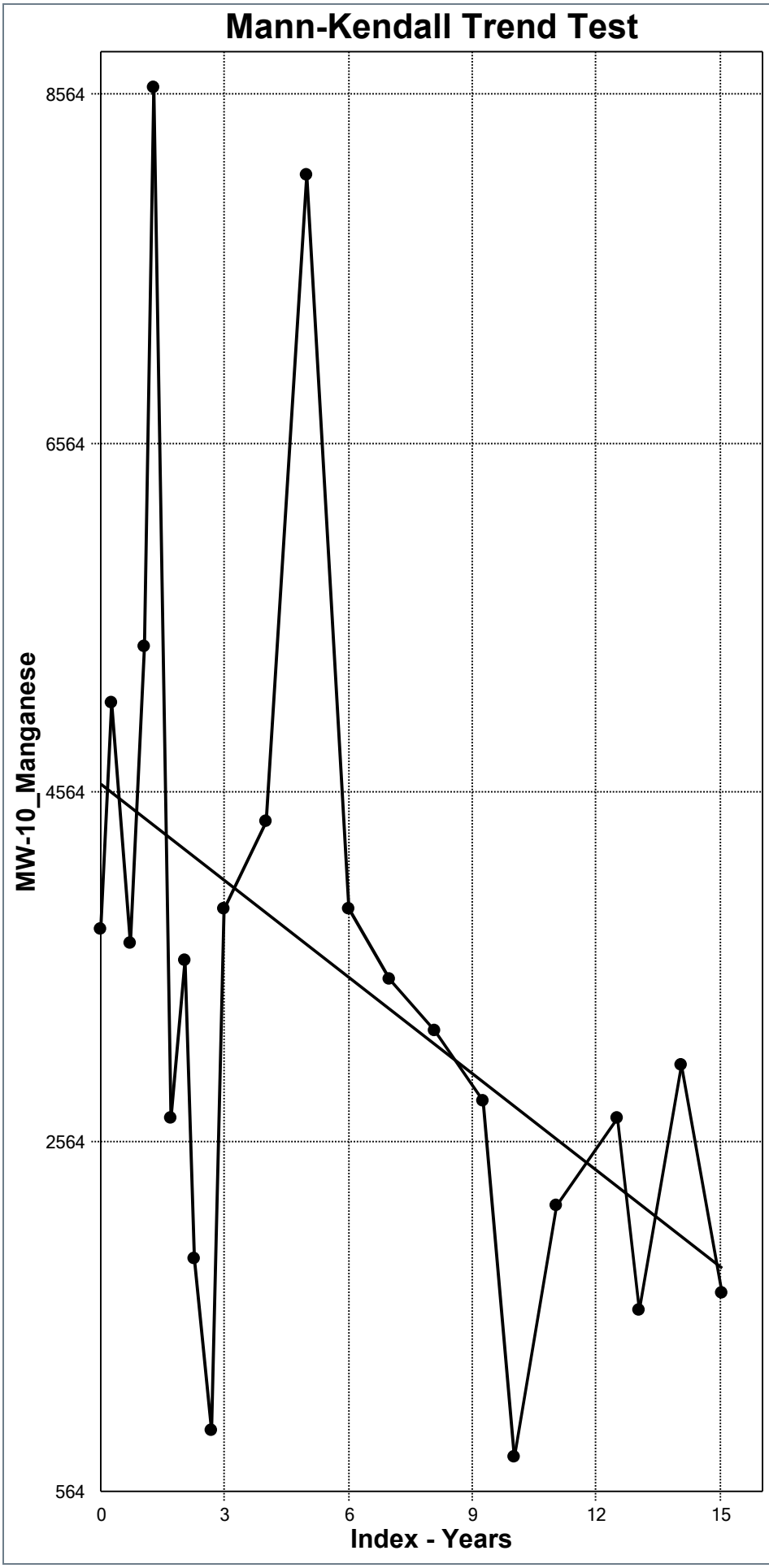
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3034
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

OLS Regression Line (Blue)

OLS Regression Slope	25.4313
OLS Regression Intercept	1,254.4927

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.442
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

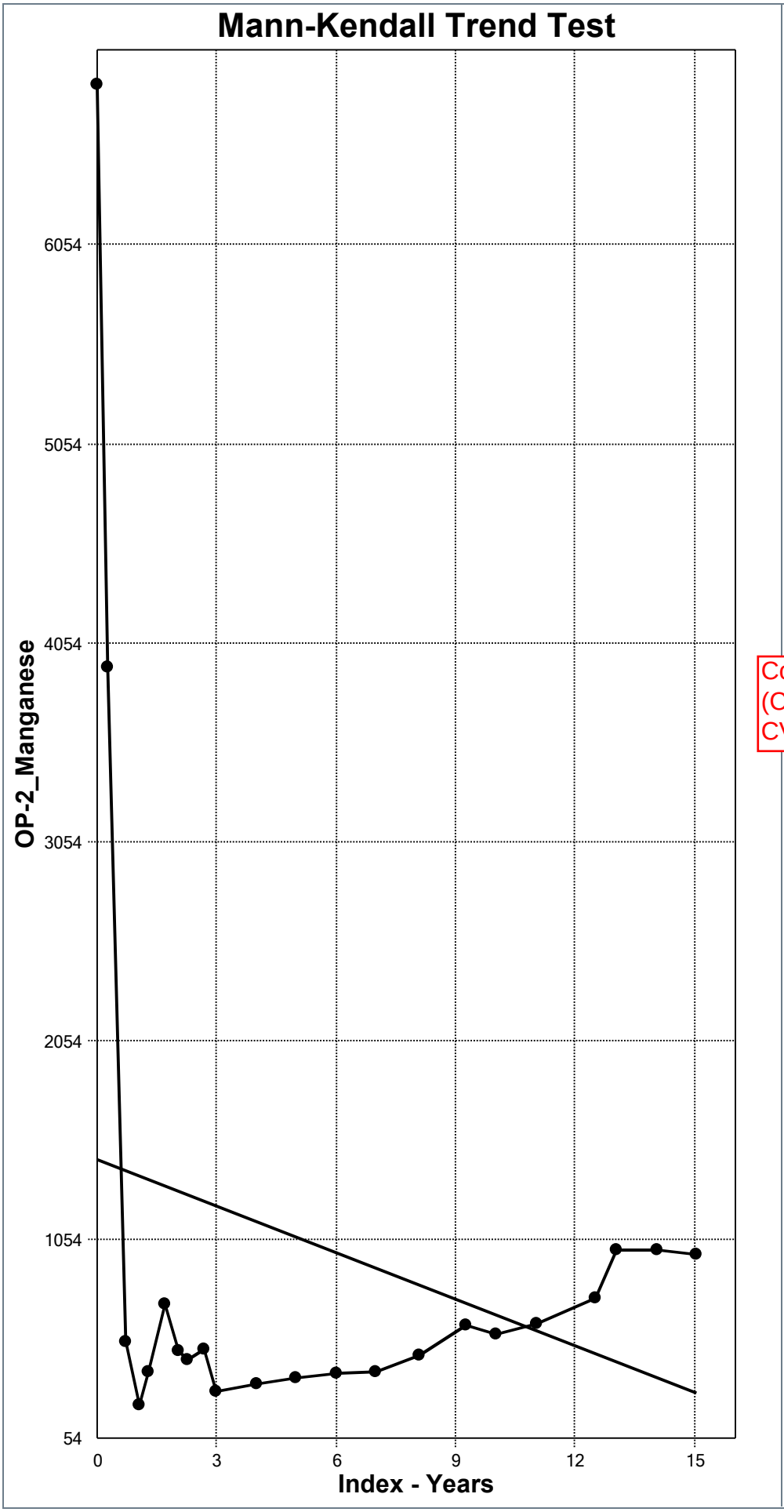
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	-2.6527
Test Value (S)	-95
Tabulated p-value	0.0030
Approximate p-value	0.0040

OLS Regression Line (Blue)

OLS Regression Slope	-184.3404
OLS Regression Intercept	4,610.5057

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.561
DECREASING



Mann-Kendall Trend Analysis

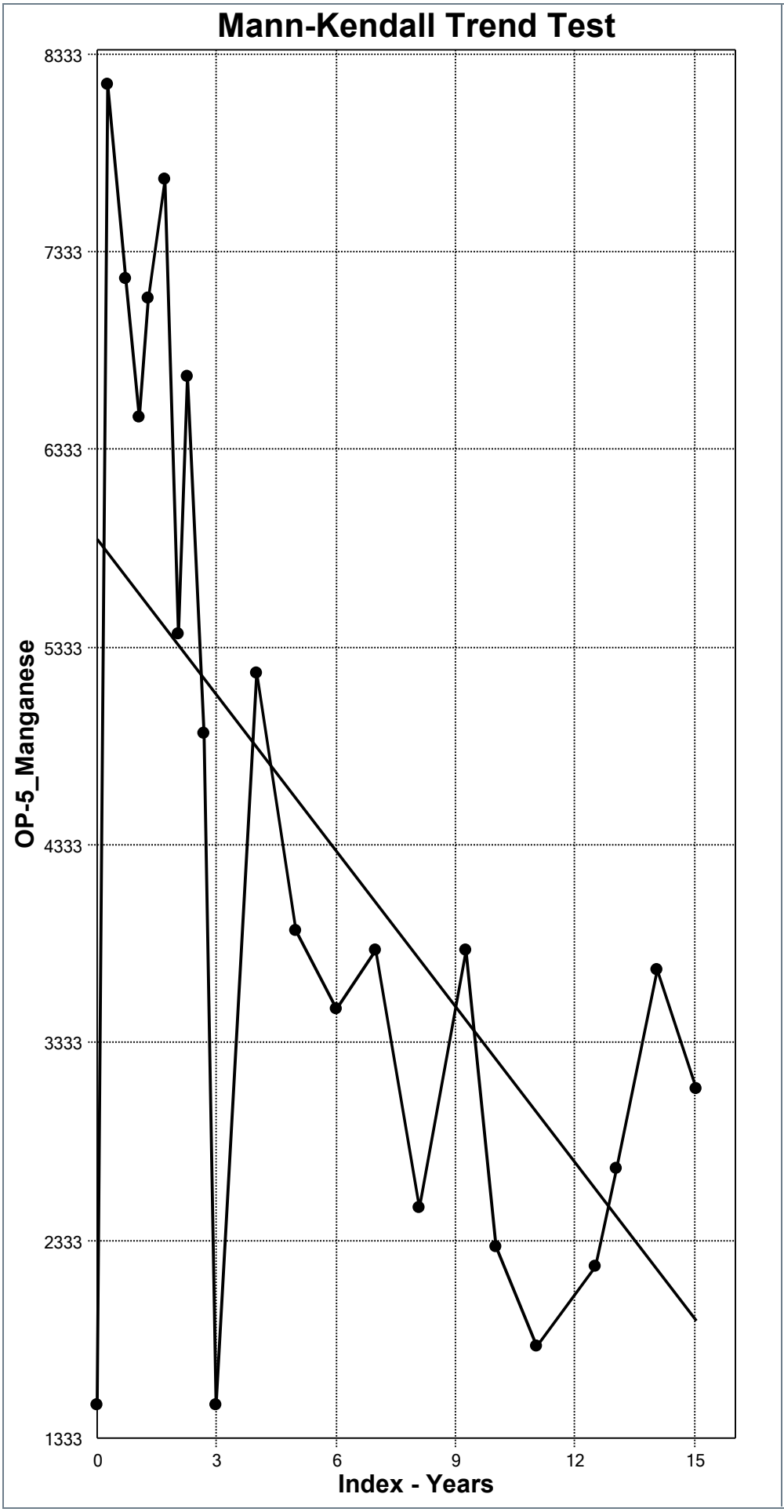
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	1.4110
Test Value (S)	51
Tabulated p-value	0.0800
Approximate p-value	0.0791

OLS Regression Line (Blue)

OLS Regression Slope	-78.0975
OLS Regression Intercept	1,457.6495

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 1.517
CV <= 1 No Trend Not Stable



Mann-Kendall Trend Analysis

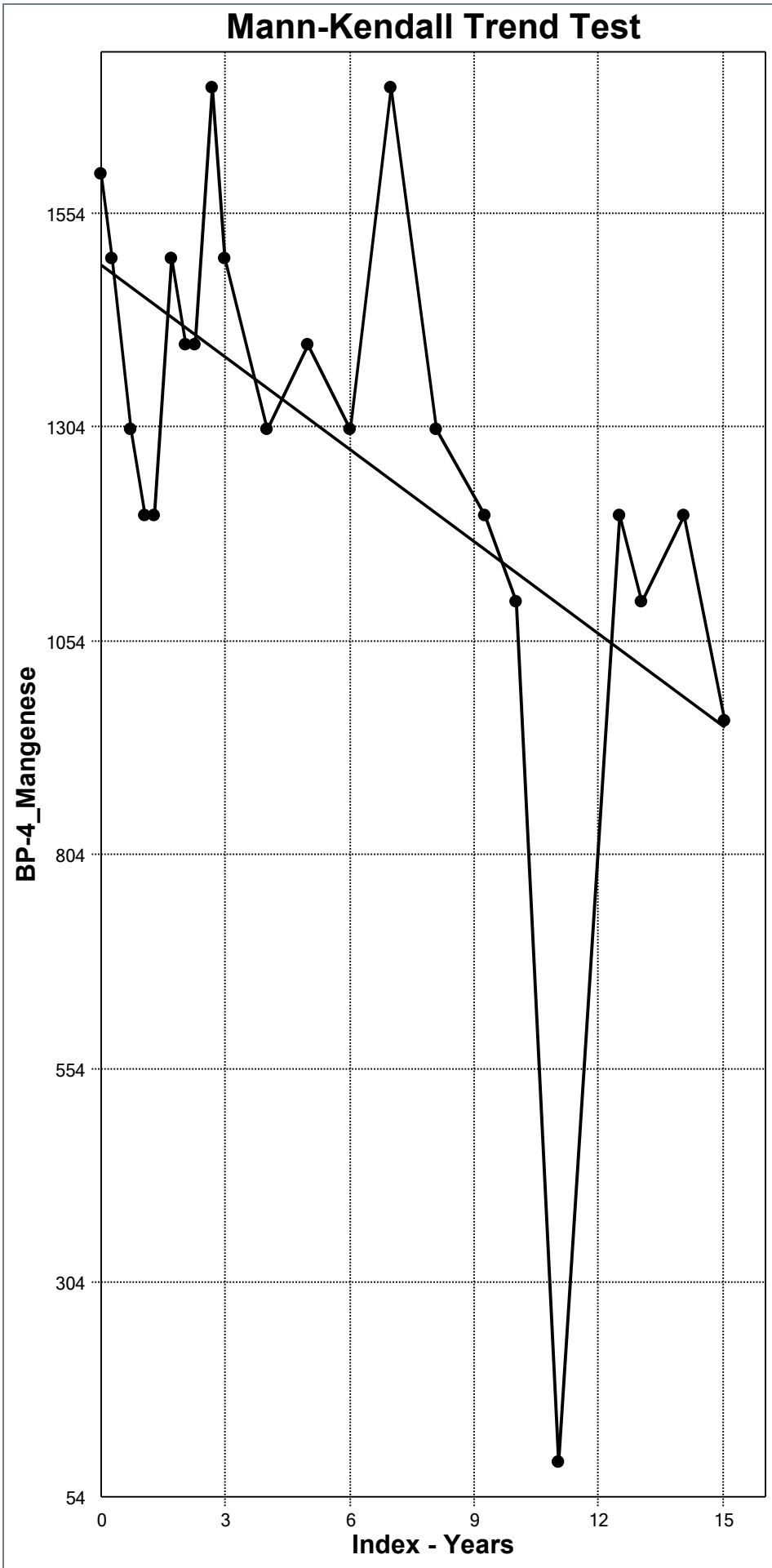
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	-3.1607
Test Value (S)	-113
Tabulated p-value	0.0010
Approximate p-value	0.0008

OLS Regression Line (Blue)

OLS Regression Slope	-262.7853
OLS Regression Intercept	5,881.5747

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.492
DECREASING



Mann-Kendall Trend Analysis

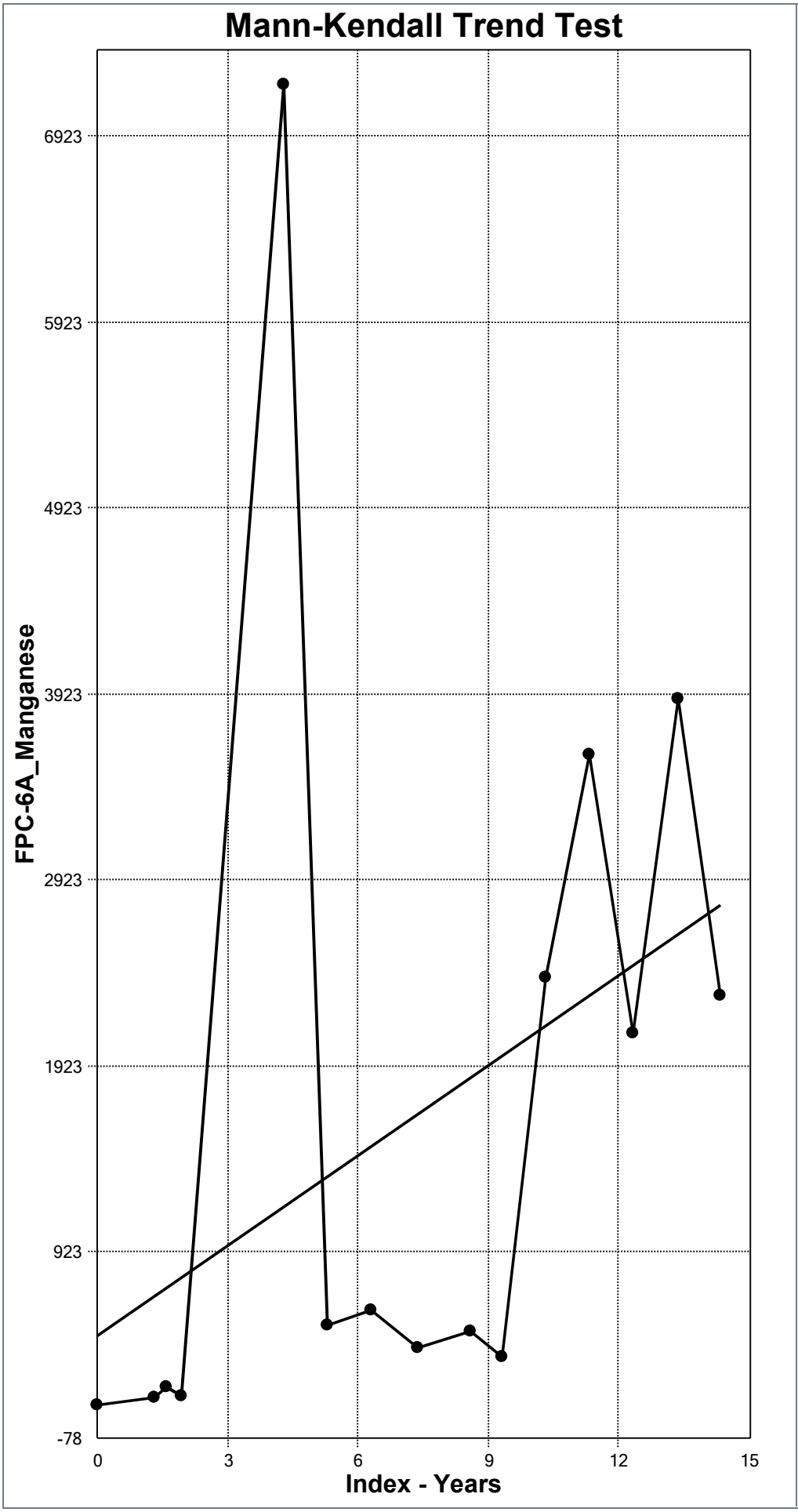
n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	34.9714
Standardized Value of S	-2.9739
Test Value (S)	-105
Tabulated p-value	0.0010
Approximate p-value	0.0015

OLS Regression Line (Blue)

OLS Regression Slope	-35.9039
OLS Regression Intercept	1,492.2133

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.256
DECREASING



Mann-Kendall Trend Analysis

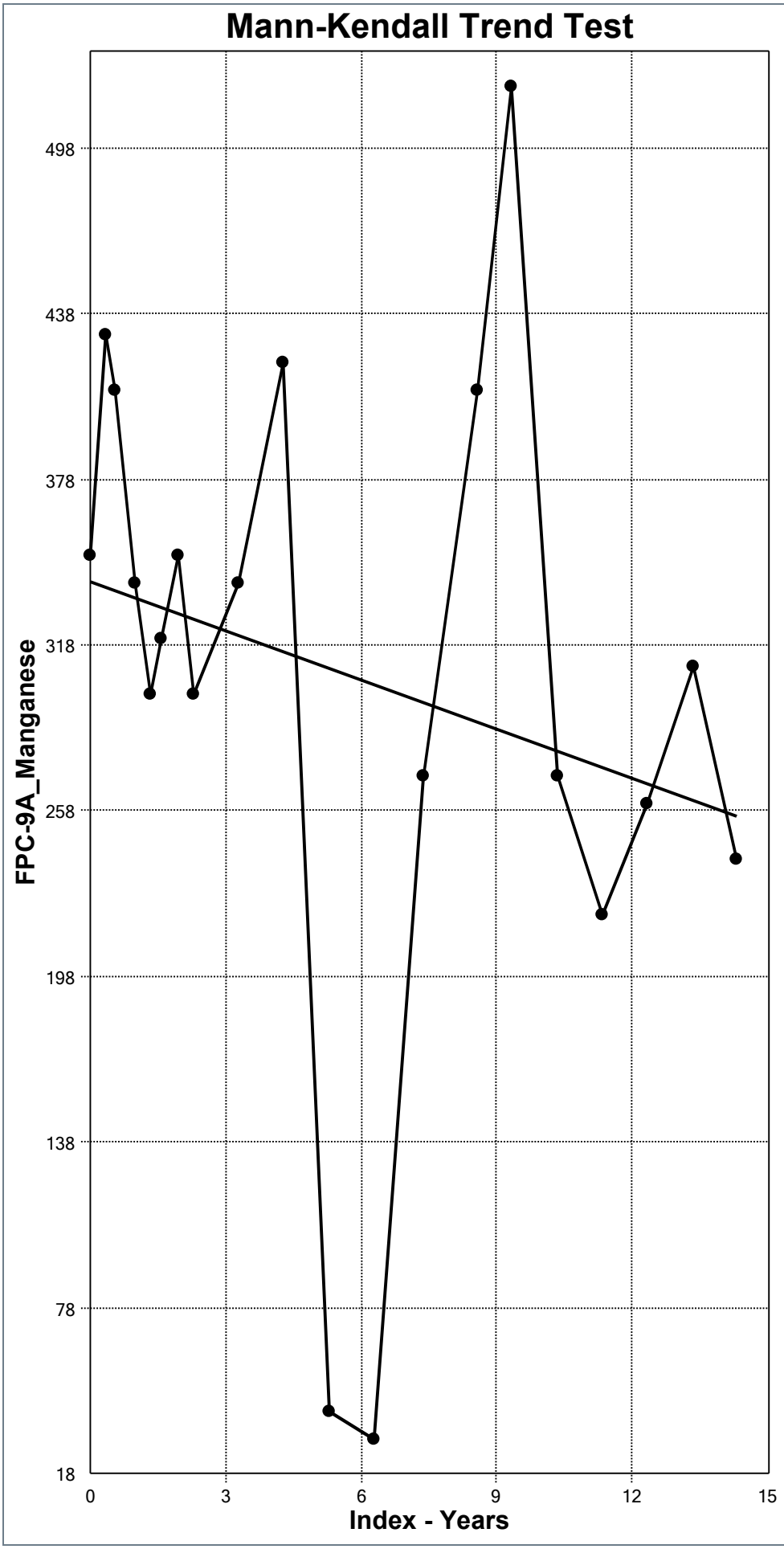
n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.2073
Standardized Value of S	2.7713
Test Value (S)	57
Tabulated p-value	0.0020
Approximate p-value	0.0028

OLS Regression Line (Blue)

OLS Regression Slope	161.8514
OLS Regression Intercept	471.3144

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 1.233
INCREASING



Mann-Kendall Trend Analysis

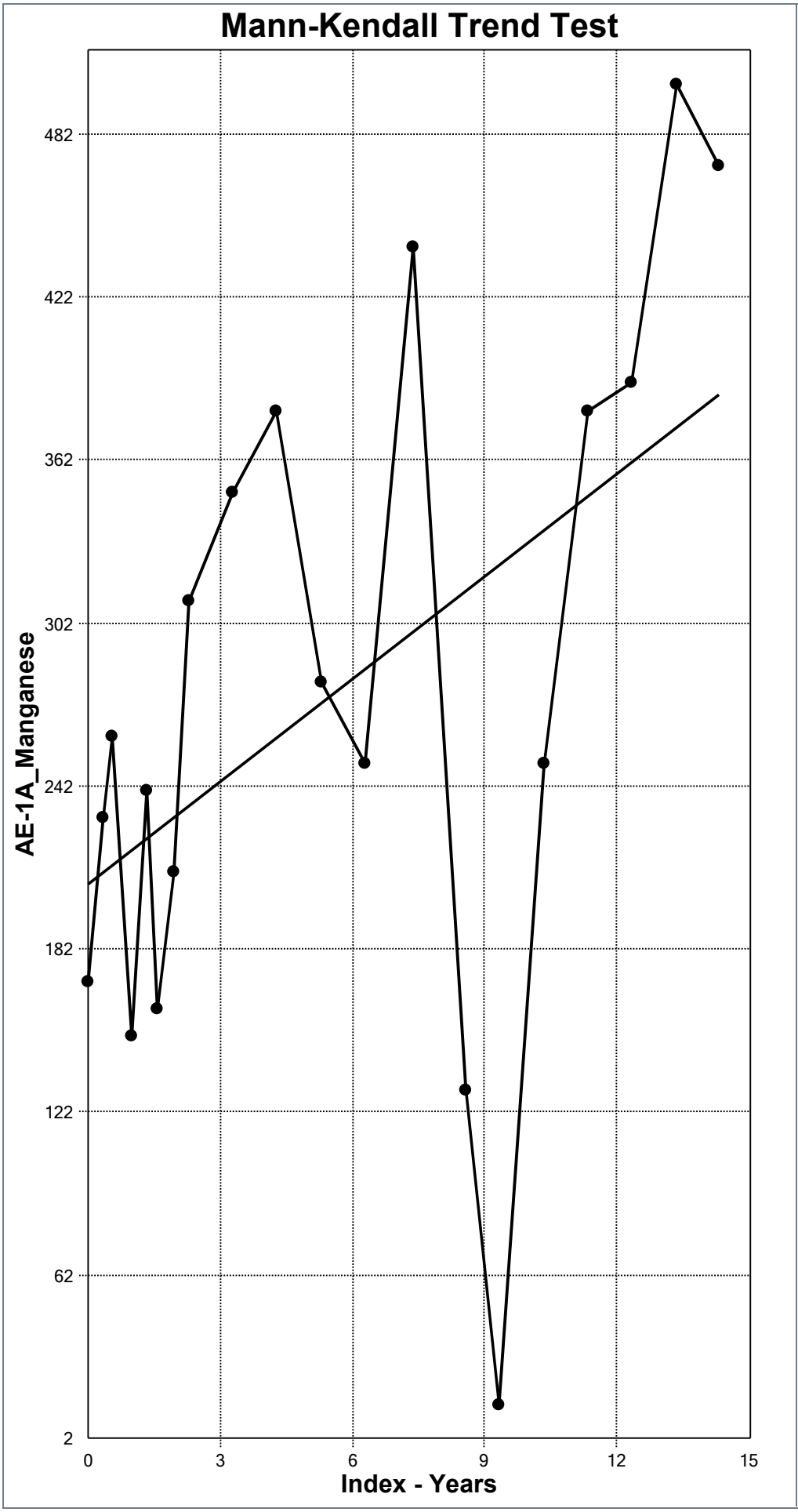
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.7409
Standardized Value of S	-2.0169
Test Value (S)	-63
Tabulated p-value	0.0230
Approximate p-value	0.0219

OLS Regression Line (Blue)

OLS Regression Slope	-5.9027
OLS Regression Intercept	340.4861

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.386
DECREASING



Mann-Kendall Trend Analysis

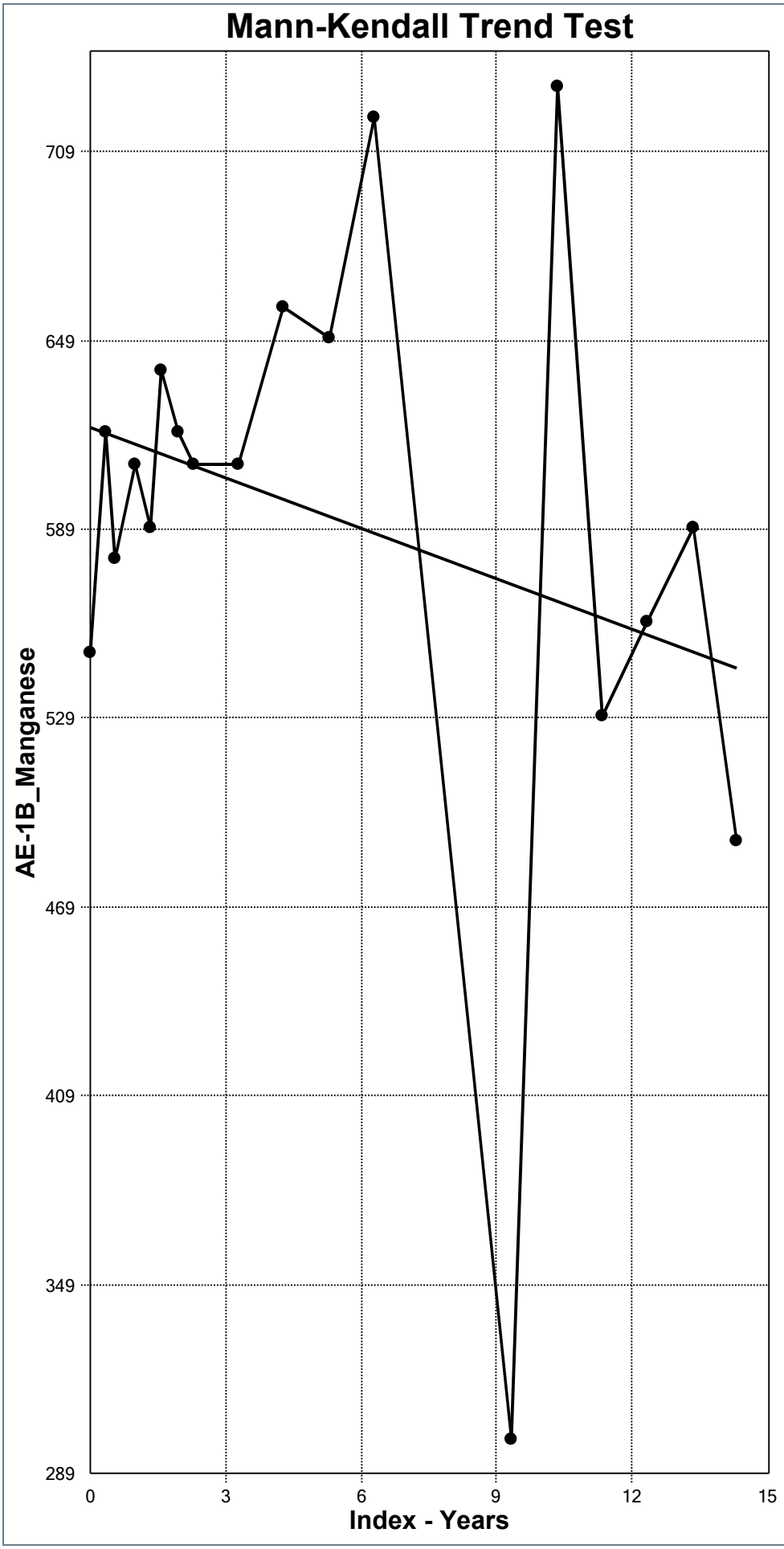
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.7896
Standardized Value of S	2.5008
Test Value (S)	78
Tabulated p-value	0.0060
Approximate p-value	0.0062

OLS Regression Line (Blue)

OLS Regression Slope	12.5742
OLS Regression Intercept	205.8018

Statistically significant evidence of an increasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.448
INCREASING



Mann-Kendall Trend Analysis

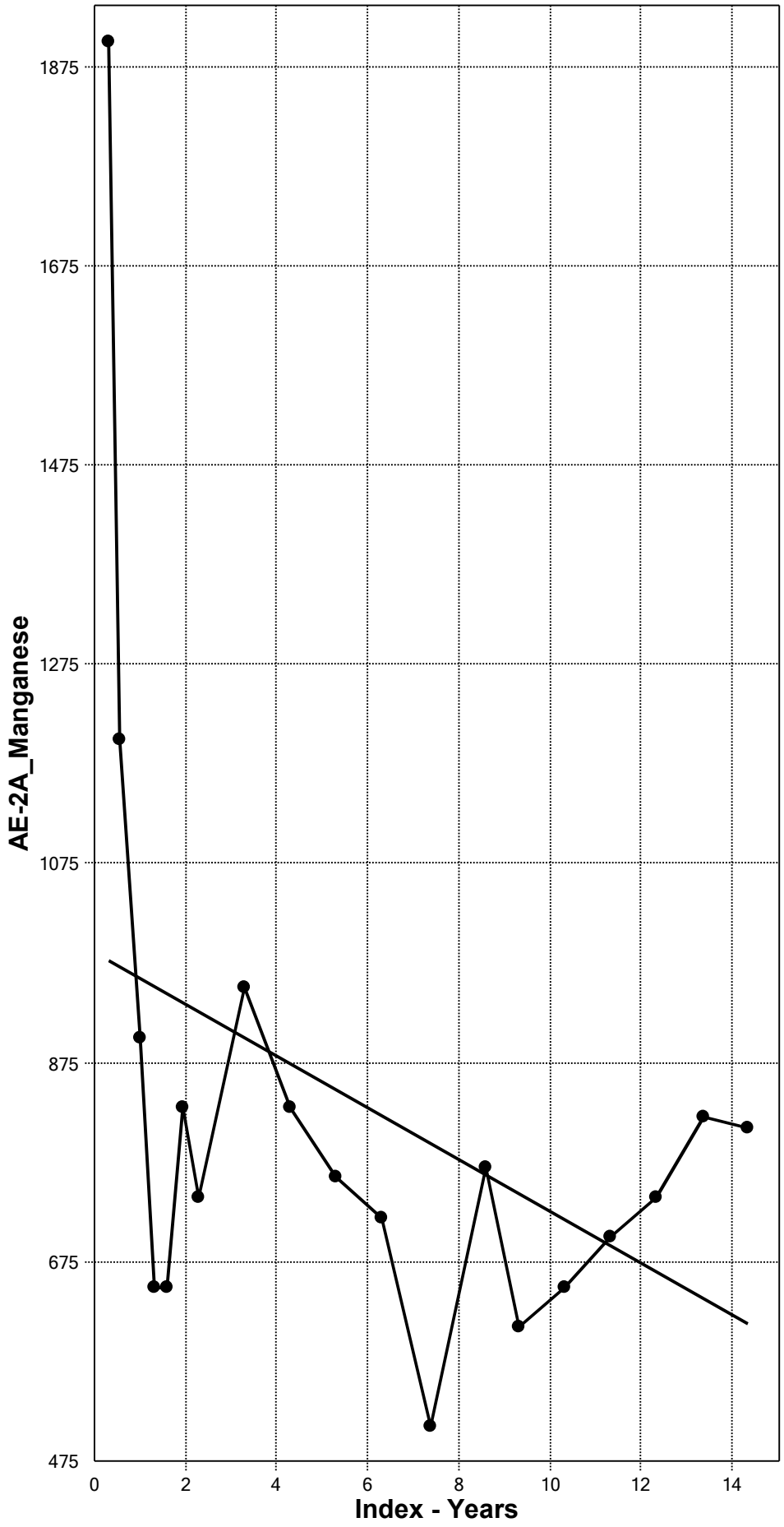
n	18
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	26.2932
Standardized Value of S	-0.0380
Test Value (S)	-2
Tabulated p-value	0.4700
Approximate p-value	0.4848

OLS Regression Line (Blue)

OLS Regression Slope	-5.3225
OLS Regression Intercept	621.5584

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.159
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

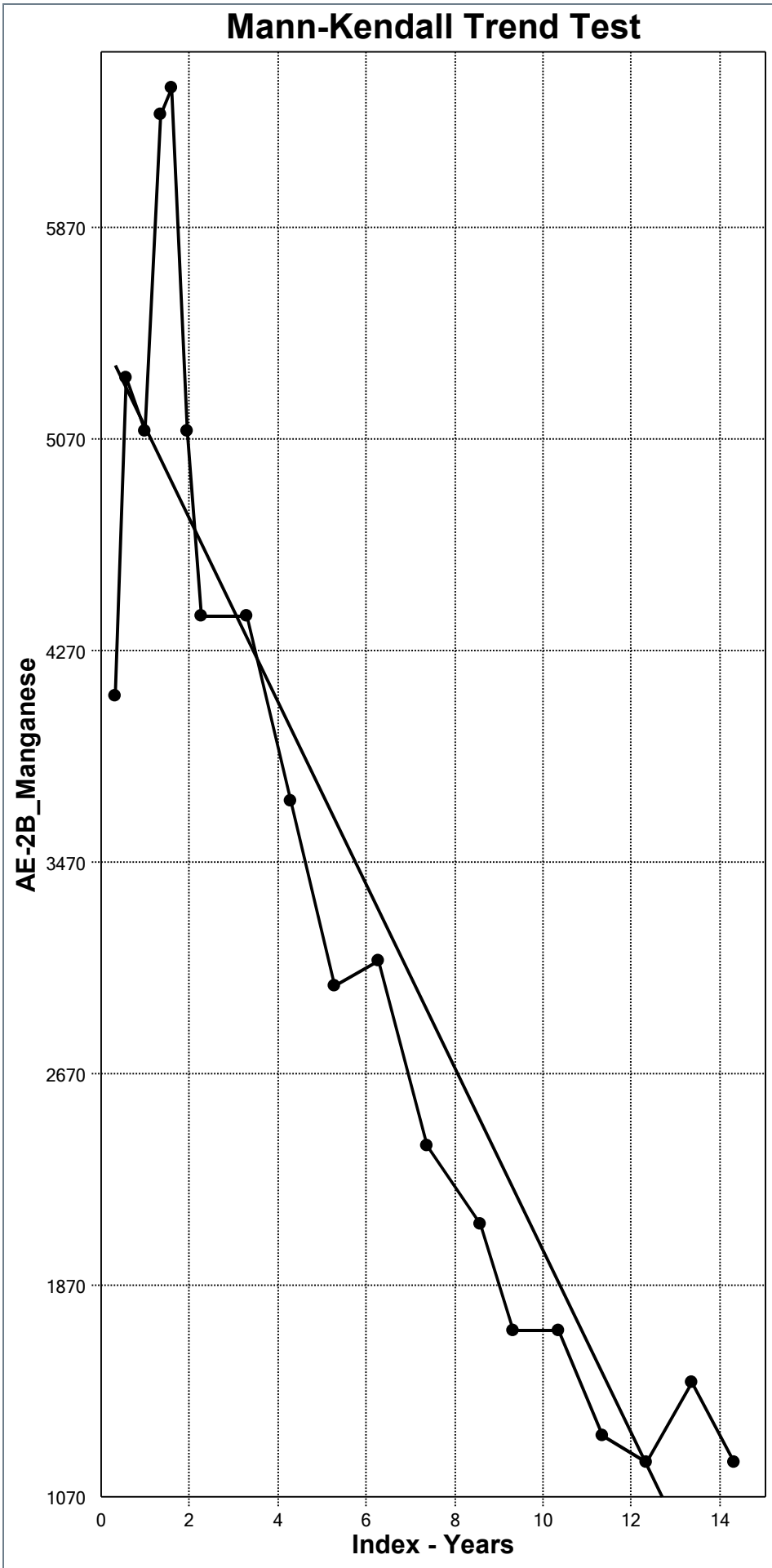
n	19
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.4839
Standardized Value of S	-1.5798
Test Value (S)	-46
Tabulated p-value	0.0540
Approximate p-value	0.0571

OLS Regression Line (Blue)

OLS Regression Slope	-25.9588
OLS Regression Intercept	985.7495

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.360
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

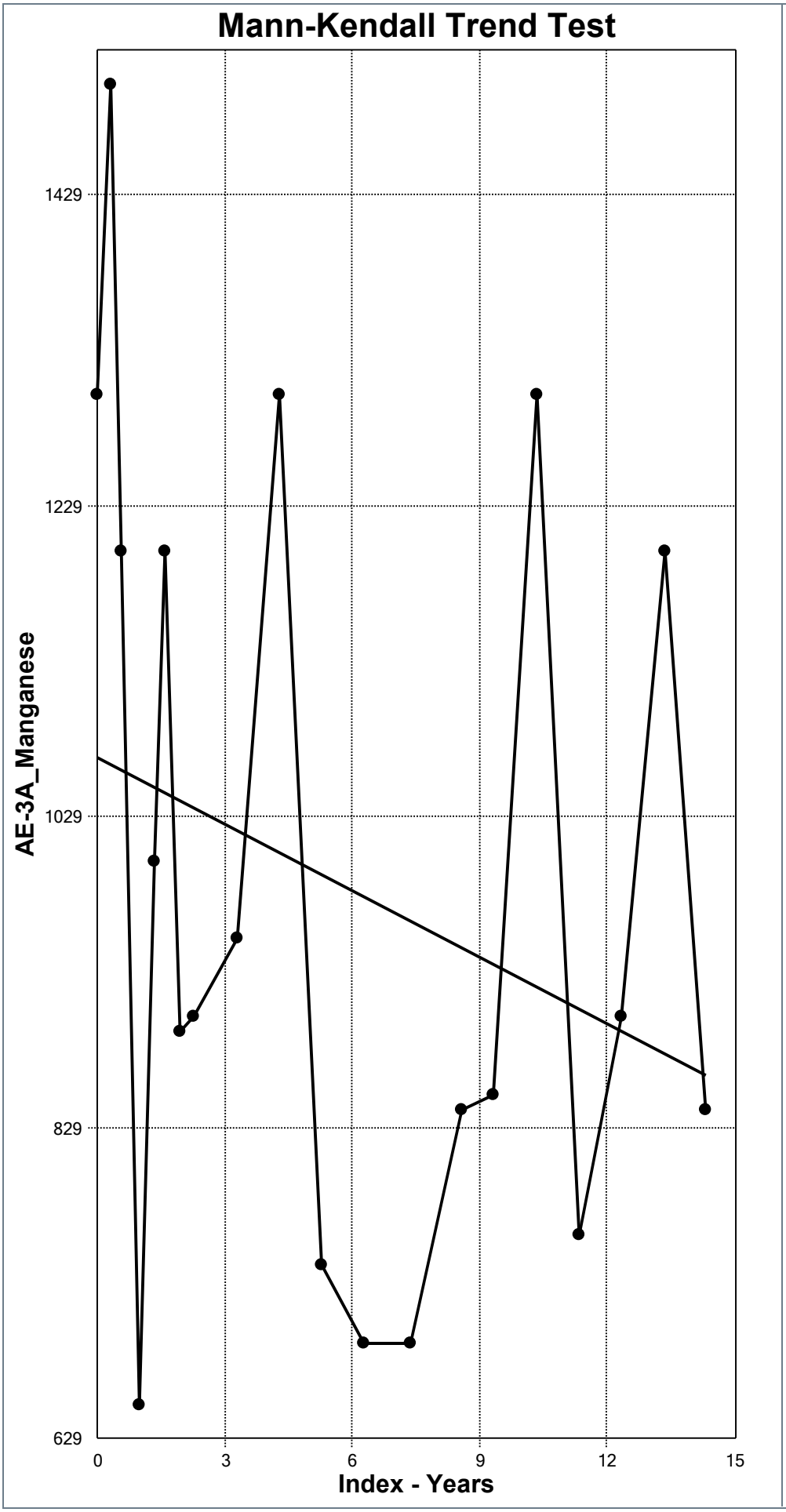
n	19
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.5132
Standardized Value of S	-4.7697
Test Value (S)	-137
Tabulated p-value	0.0000
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-346.2639
OLS Regression Intercept	5,467.0247

Statistically significant evidence of a decreasing trend at the specified level of significance.

Coefficient of Variation (CV) = 0.523
DECREASING



Mann-Kendall Trend Analysis

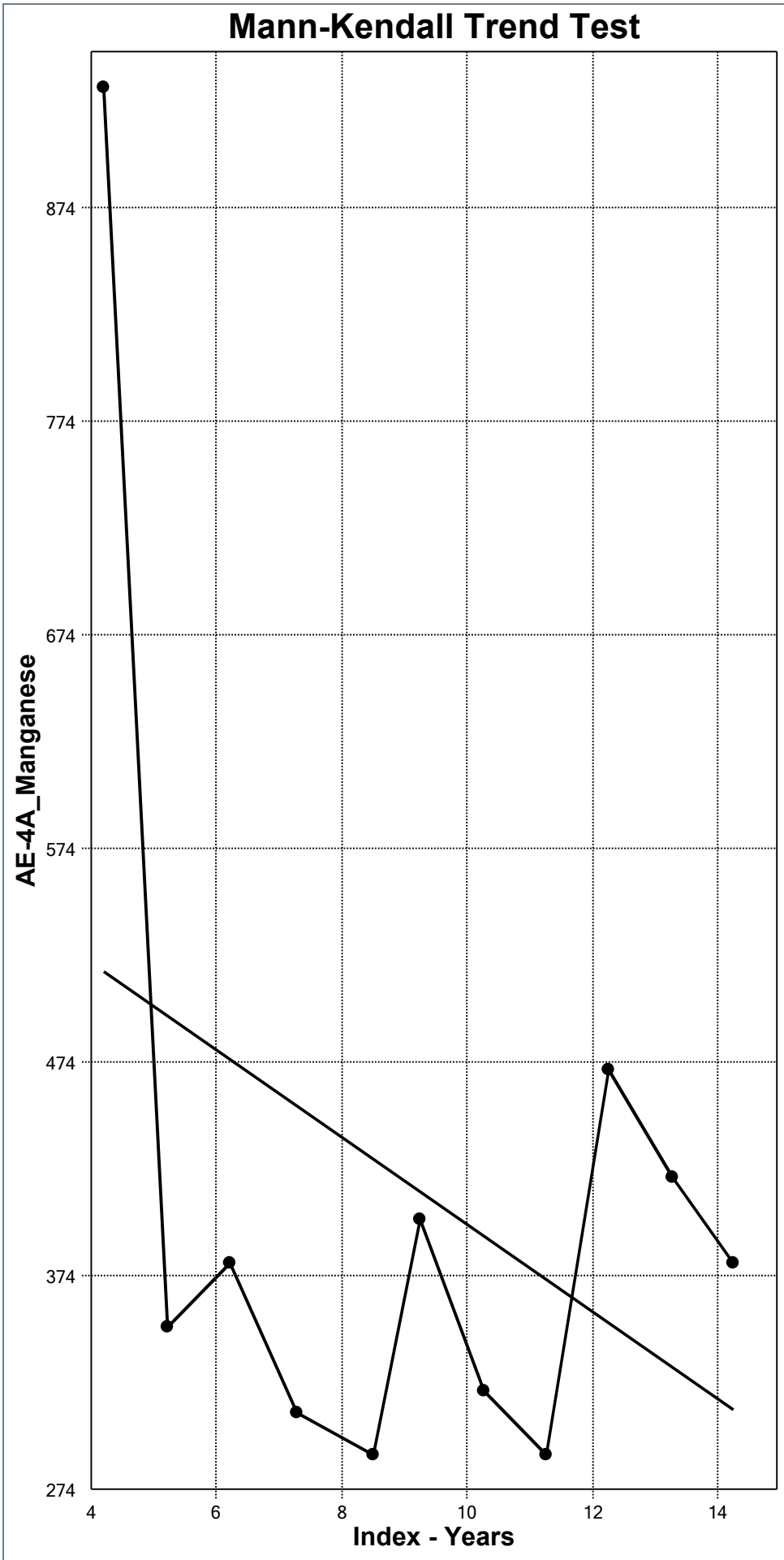
n	20
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	30.6540
Standardized Value of S	-1.3049
Test Value (S)	-41
Tabulated p-value	0.1040
Approximate p-value	0.0960

OLS Regression Line (Blue)

OLS Regression Slope	-14.2696
OLS Regression Intercept	1,067.1597

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.253
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

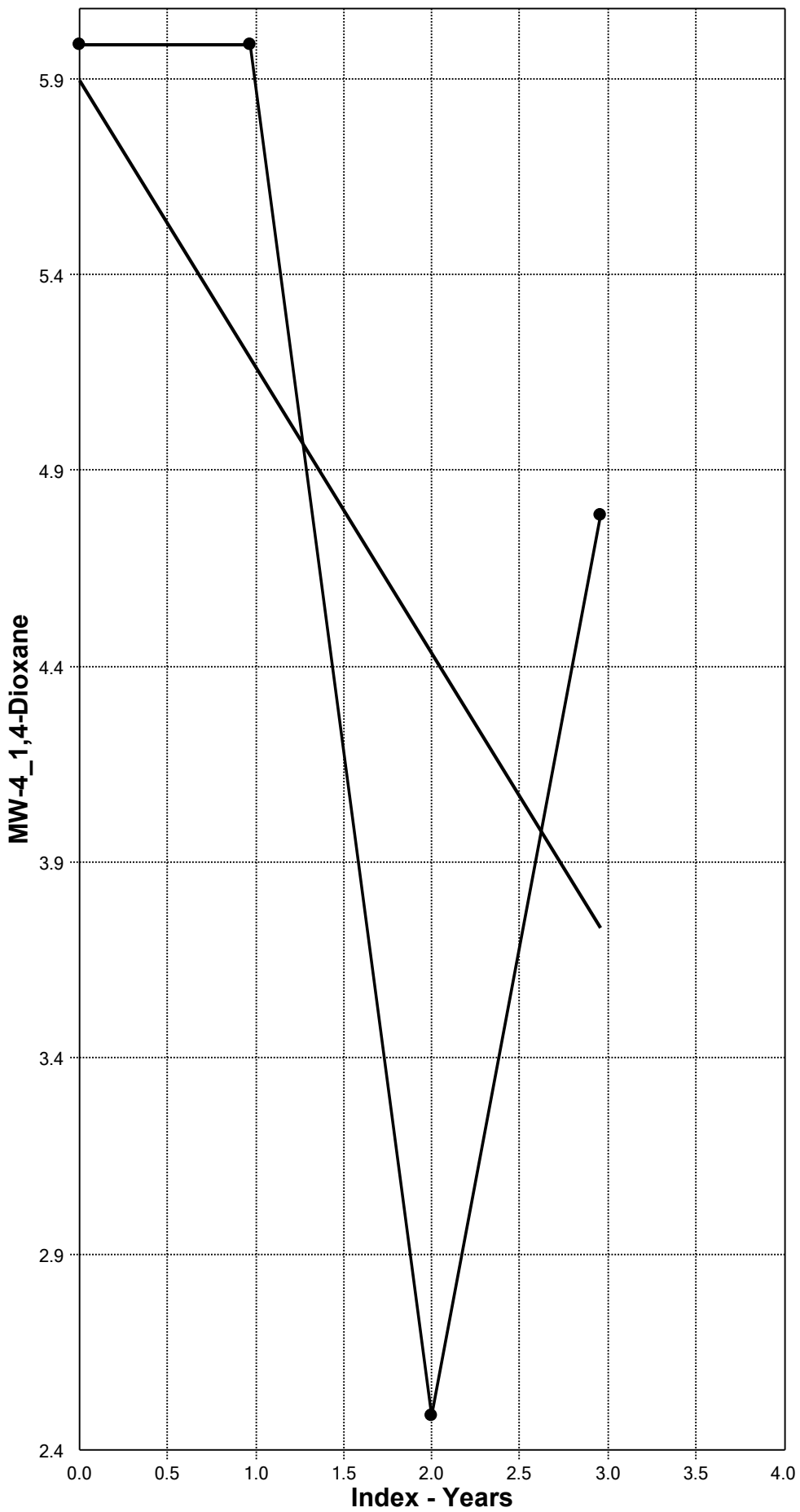
n	11
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	12.7671
Standardized Value of S	0.0000
Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

OLS Regression Line (Blue)

OLS Regression Slope	-20.4313
OLS Regression Intercept	603.7177

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.438
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

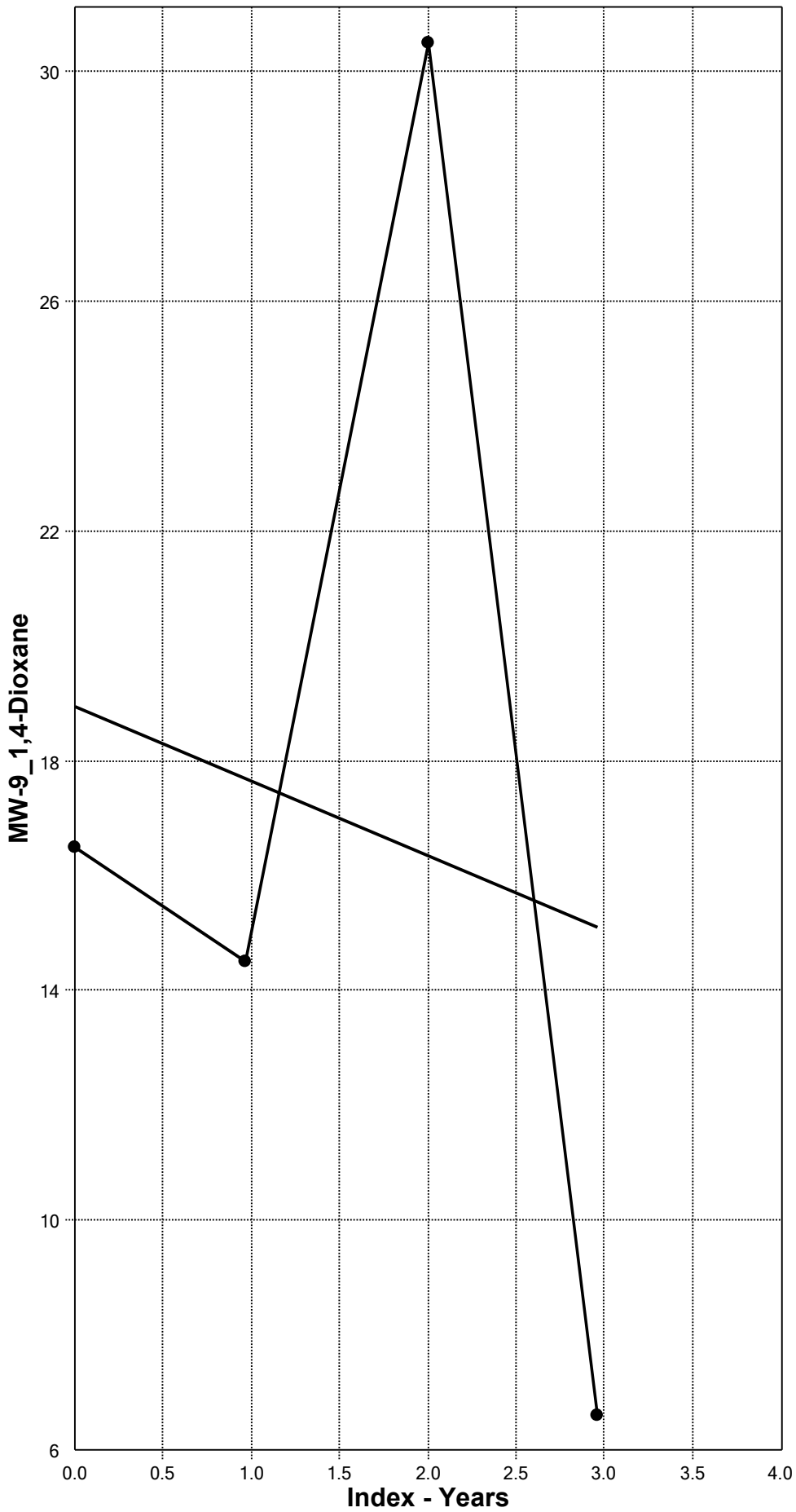
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.7689
Standardized Value of S	-0.7223
Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.2351

OLS Regression Line (Blue)

OLS Regression Slope	-0.7298
OLS Regression Intercept	5.9069

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.342
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

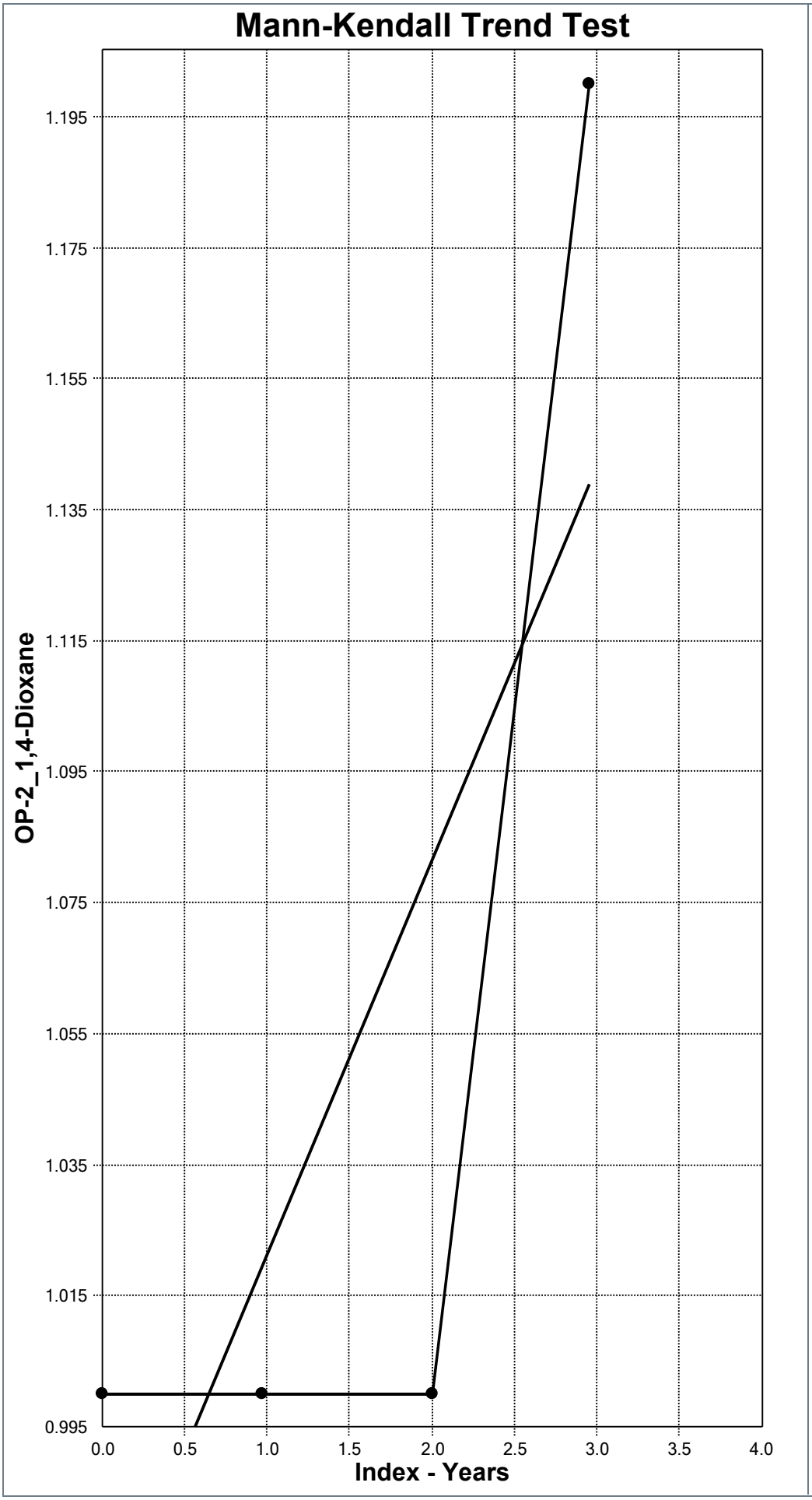
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

OLS Regression Slope	-1.2944
OLS Regression Intercept	18.4440

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.602
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

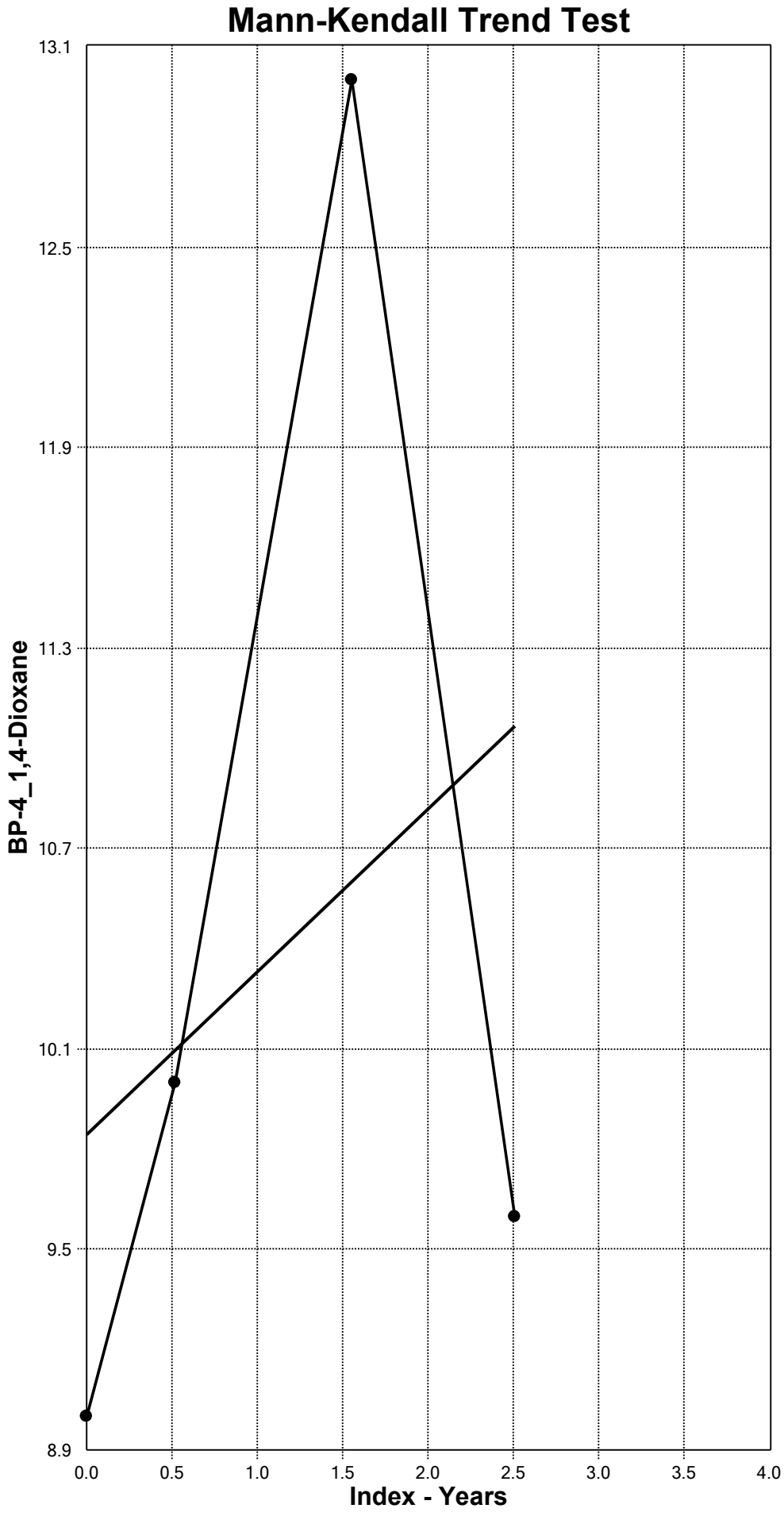
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.2361
Standardized Value of S	0.8944
Test Value (S)	3
Tabulated p-value	0.3750
Approximate p-value	0.1855

OLS Regression Line (Blue)

OLS Regression Slope	0.0602
OLS Regression Intercept	0.9608

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.095
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

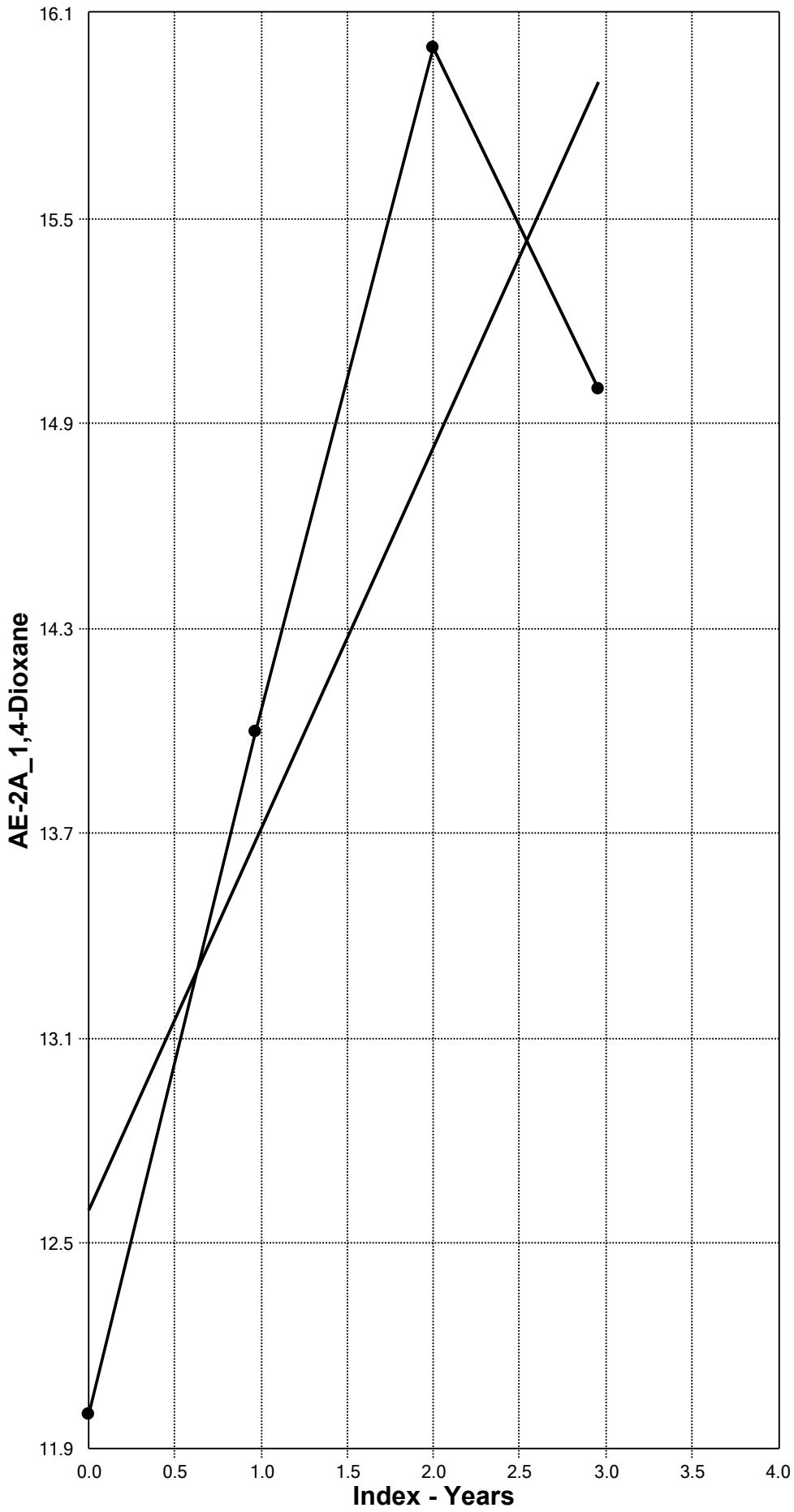
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

OLS Regression Slope	0.4865
OLS Regression Intercept	9.8430

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.171
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

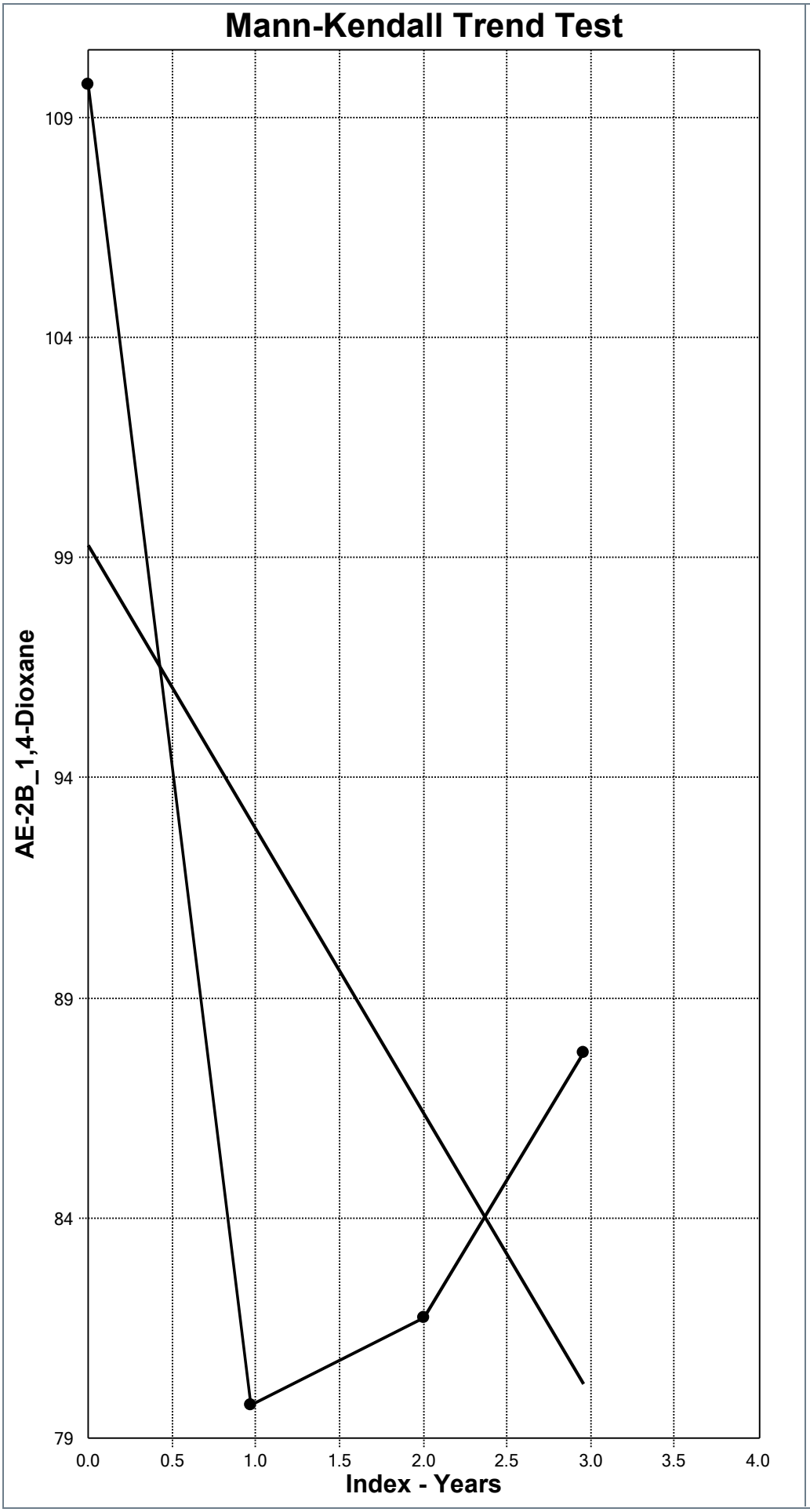
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.9439
Standardized Value of S	1.0190
Test Value (S)	4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	1.1153
OLS Regression Intercept	12.5966

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.120
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

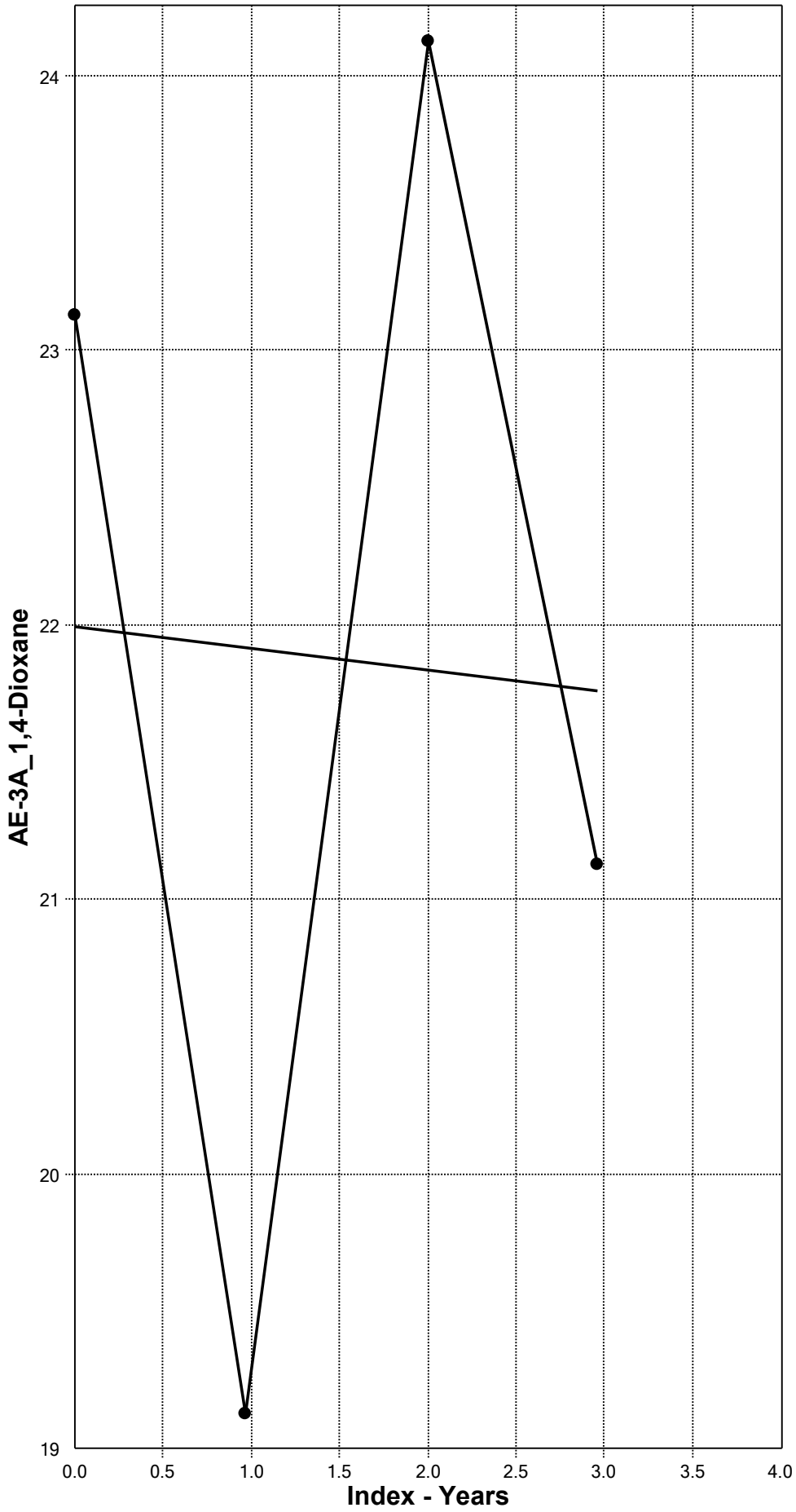
n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.9439
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

OLS Regression Line (Blue)

OLS Regression Slope	-6.4382
OLS Regression Intercept	99.5447

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.153
CV <= 1 No Trend Stable



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	2.9439
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

OLS Regression Line (Blue)

OLS Regression Slope	-0.0789
OLS Regression Intercept	21.8670

Insufficient statistical evidence of a significant trend at the specified level of significance.

Coefficient of Variation (CV) = 0.102
CV <= 1 No Trend Stable